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BOULDER VALLEY COMPREHENSIVE PLAN	
LAND USE MAP DESIGNATION	MEDIUM DENSITY RESIDENTIAL
MAXIMUM DENSITY ALLOWED	20 DU/ACRE; 3.216*20 = 64 UNITS
MAXIMUM DENSITY PROPOSED	44 UNITS = 13.68 DU/ACRE

SHEET INDEX

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SR-A4.00	ELEVATIONS - ROW HOMES (BLDG A)
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SR-A4.21	ELEVATIONS - STACKED FLATS (BLDGS D & E)
SR-A4.22	PERSPECTIVES - STACKED FLATS (BLDGS D & E)
SR-A4.23	ELEVATIONS - STACKED FLATS - HEIGHT MODIFICATION
SR-A4.30	ELEVATIONS - ROW HOMES (BLDGS F, G, & H)
SR-A4.31	ELEVATIONS - ROW HOMES (BLDGS F, G, & H)
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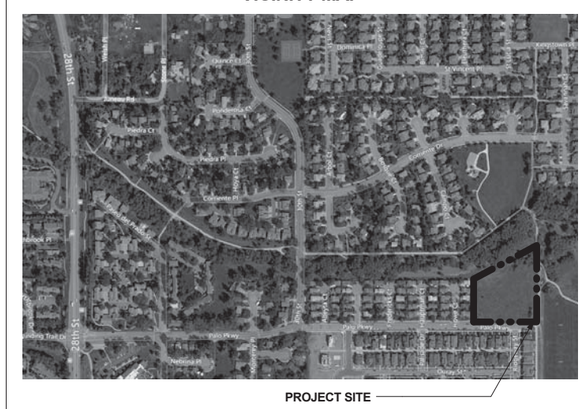
SR-C1.00	EXISTING CONDITIONS PLAN
SR-C1.01	CIVIL SITE PLAN
SR-C1.02	PRELIMINARY GRADING PLAN
SR-C1.03	PRELIMINARY UTILITY PLAN
SR-A10.00	SOLAR ANALYSIS - 10AM & 2PM

VICINITY MAP



PALO PARK

COVER SHEET

SR-CVR

BOULDER HOUSING PARTNERS

4525 Palo Parkway, Boulder, CO 80303

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DWELLING UNIT MIX

UNIT TYPES	A	B	C	D	E	F	G	H	TOTAL	PRIVATE OPEN SPACE PER UNIT	TOTAL PRIVATE OPEN SPACE	AREA PER UNIT TYPE
BHP UNITS									0			
1 BEDROOM FLATS				4	4				8	62	496	735/790
2 BEDROOM FLATS				4	4				8	63	504	880
3 BEDROOM FLATS				4	4				8	61	488	1075
1 BEDROOM TOWNHOME	1	2	2						5	83	415	700
2 BEDROOM TOWNHOME	2	2	2						6	85	510	1170
FHFH UNITS 3 BEDROOM TOWNHOME						3	3	3	9	102	918	1090
TOTALS	3	4	4	12	12	3	3	3	44		3331	

* = TYPE A ACCESSIBLE UNIT SEE SR A1.02

LAND USE SUMMARY

TOTAL SITE AREA	140,075 SF / 3.216 ACRES	
BUILDING COVERAGE	24,035	17%
PARKING & DRIVES	51,109	37%
OPEN SPACE	64,931	46%
TOTAL	140,075	100%
PRIVATE OPEN SPACE*		
REQUIRED	44 DU x 60 SF/DU =	2400
PROVIDED		3331

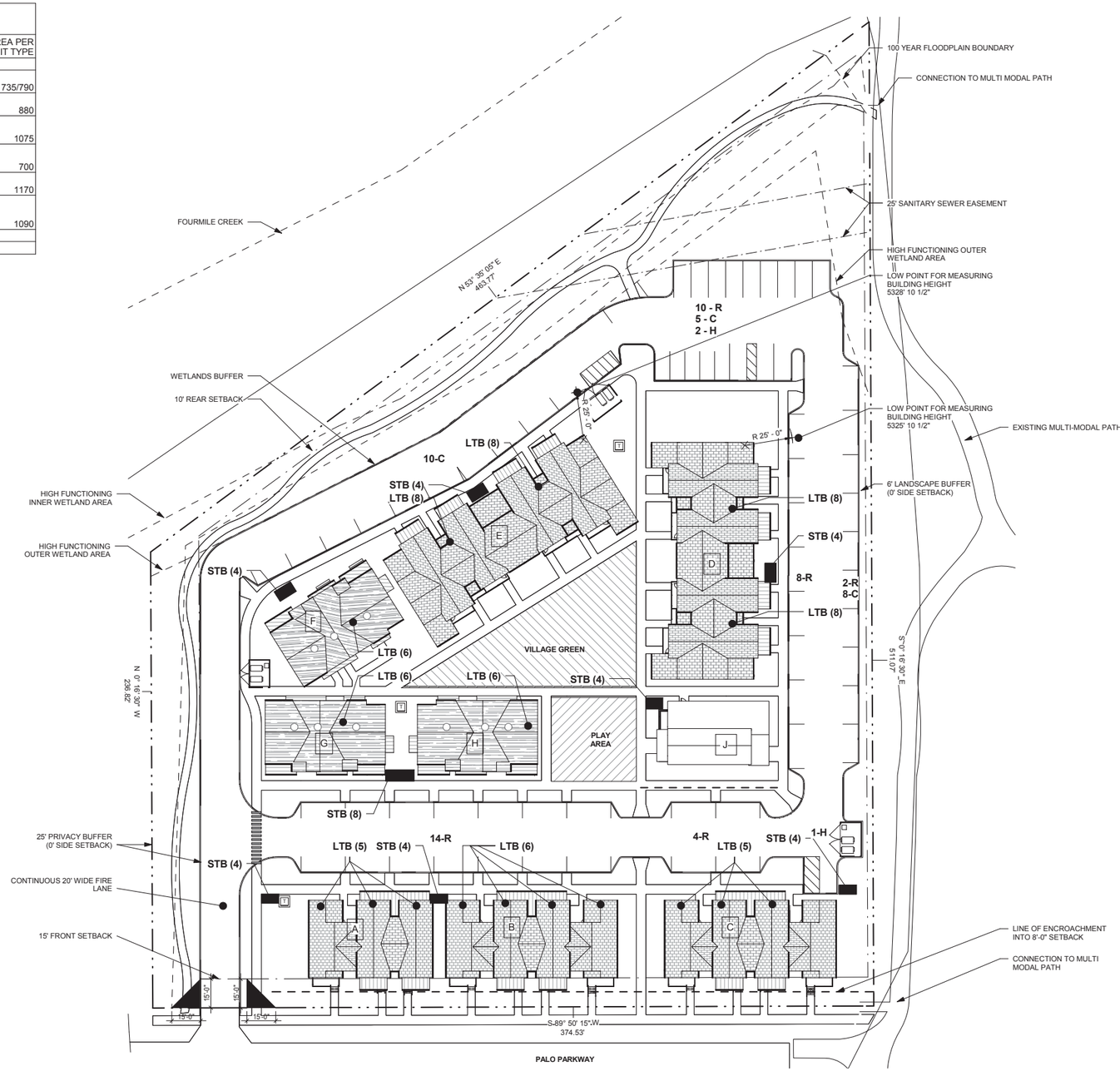
*REFER TO FLOOR PLANS FOR ADDITIONAL CLARIFICATION

VEHICULAR PARKING SUMMARY

TYPE	REQ'D	PROVIDED	SIZE
(S) STANDARD	50	38	9' - 0" x 19' - 0"
(C) COMPACT	0	23	7' - 9" x 15' - 0"
(H) ADA	3	3	9' - 0" x 19' - 0"
TOTAL	53	64	-

BICYCLE PARKING SUMMARY

TYPE	REQ'D	PROVIDED
(STB) SHORT TERM	22	36
(LTB) LONG TERM	66	66
TOTAL	88	102



1 SITE DEVELOPMENT PLAN
1" = 30'-0"

SITE PLAN SYMBOLS LEGEND

- INDICATES ACCESSIBLE UNIT OR PARKING STALL
- INDICATES ACCESSIBLE PATH OF TRAVEL
- TRASH ENCLOSURE
- MONUMENT SIGN
- TRANSFORMER
- SIGHT TRIANGLE
- DRIVE AISLE DIRECTION
- BIKE PARKING
- PROPERTY LINE
- SETBACK / EASEMENT LINE
- WETLANDS / FLOOD PLAIN
- BUILDING A — BHP ROW HOME - 3 UNIT BLDG
- BUILDING B & C — BHP ROW HOME - 4 UNIT BLDG
- BUILDING D & E — BHP STACKED FLATS - 12 UNIT BLDG
- BUILDING F, G, H — FLATIRONS H.F.H.; 2-STORY TOWNHOMES
- BUILDING J — COMMUNITY CENTER
- FOOT PATH
- OPEN SPACE DESIGNATED FOR RECREATIONAL PURPOSES
- SHORT TERM BIKE PARKING
- LONG TERM BIKE PARKING

ACCESSIBILITY REQUIREMENTS

TOTAL # OF UNITS:	44
REQUIRED ACCESSIBILITY POINTS =	24
ACCESSIBILITY POINTS PROVIDED:	
TYPE A UNITS-2CT =	12
42CT TYPE B UNITS (4 POINTS EA) =	168
TOTAL: PROVIDED	180

NORTH

PALO PARK

SITE DEVELOPMENT PLAN

SR-A1.01

BOULDER HOUSING PARTNERS

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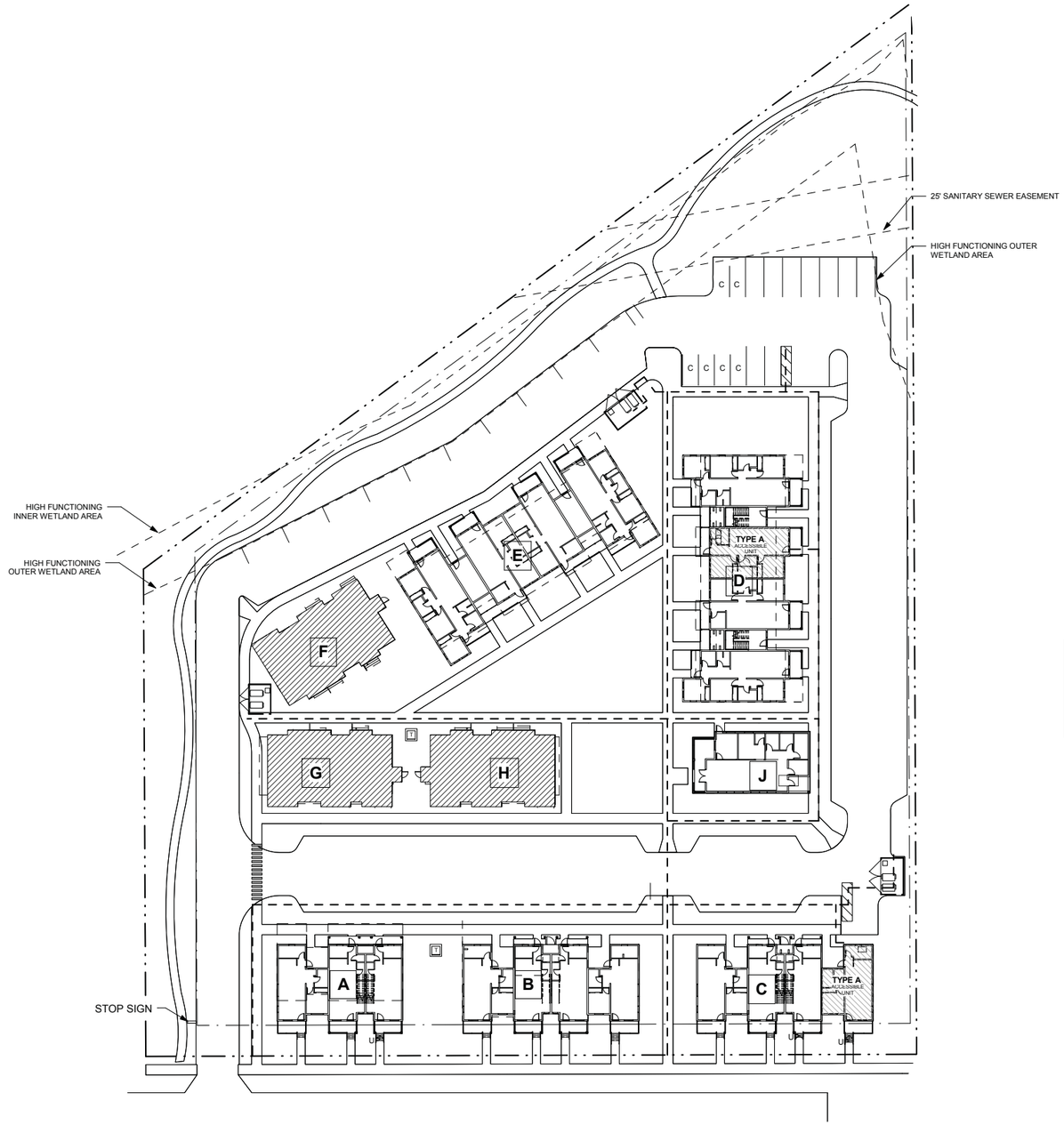

1 SITE PLAN
1" = 30'-0"

SITE PLAN SYMBOLS LEGEND

	INDICATES ACCESSIBLE UNIT OR PARKING STALL
	INDICATES ACCESSIBLE PATH OF TRAVEL
	TRASH ENCLOSURE
	DRIVE AISLE DIRECTION
	SHORT TERM BIKE PARKING
	LONG TERM BIKE PARKING
C	COMPACT PARKING STALL
	TYPE A ACCESSIBLE UNIT
	HABITAT BUILDING
	RAISED CROSSWALK
	PROPERTY LINE
	SETBACK / EASEMENT LINE
	WETLANDS / FLOOD PLAIN
BUILDING A	BHP ROW HOME - 3 UNIT BLDG
BUILDING B & C	BHP ROW HOME - 4 UNIT BLDG
BUILDING D & E	BHP STACKED FLATS - 12 UNIT BLDG
BUILDING F, G, H	FLATIRONS H.F.H.; 2-STORY TOWNHOMES
BUILDING J	COMMUNITY CENTER

NOTE: REFER TO SHEET SR A1.01 FOR SUMMARY TABLES FOR VEHICULAR AND BICYCLE PARKING.

ACCESSIBLE UNIT MATRIX

	A	B	C	D	E	F	G	H	TOTAL
TYPE A			1	1					2
TYPE B (GROUND LEVEL)	3	4	3	3	4	3	3	3	26

NOTE: ALL LEVEL 1 UNITS ARE TYPE B ACCESSIBILITY UNLESS SPECIFICALLY NOTED AS TYPE A ACCESSIBLE. ALL LEVEL 2 AND LEVEL 3 UNITS ARE NOT REQUIRED TO BE ACCESSIBLE DUE TO NO ELEVATOR SERVICE.

PALO PARK

ACCESSIBILITY PLAN

SR-A1.02

BOULDER HOUSING PARTNERS

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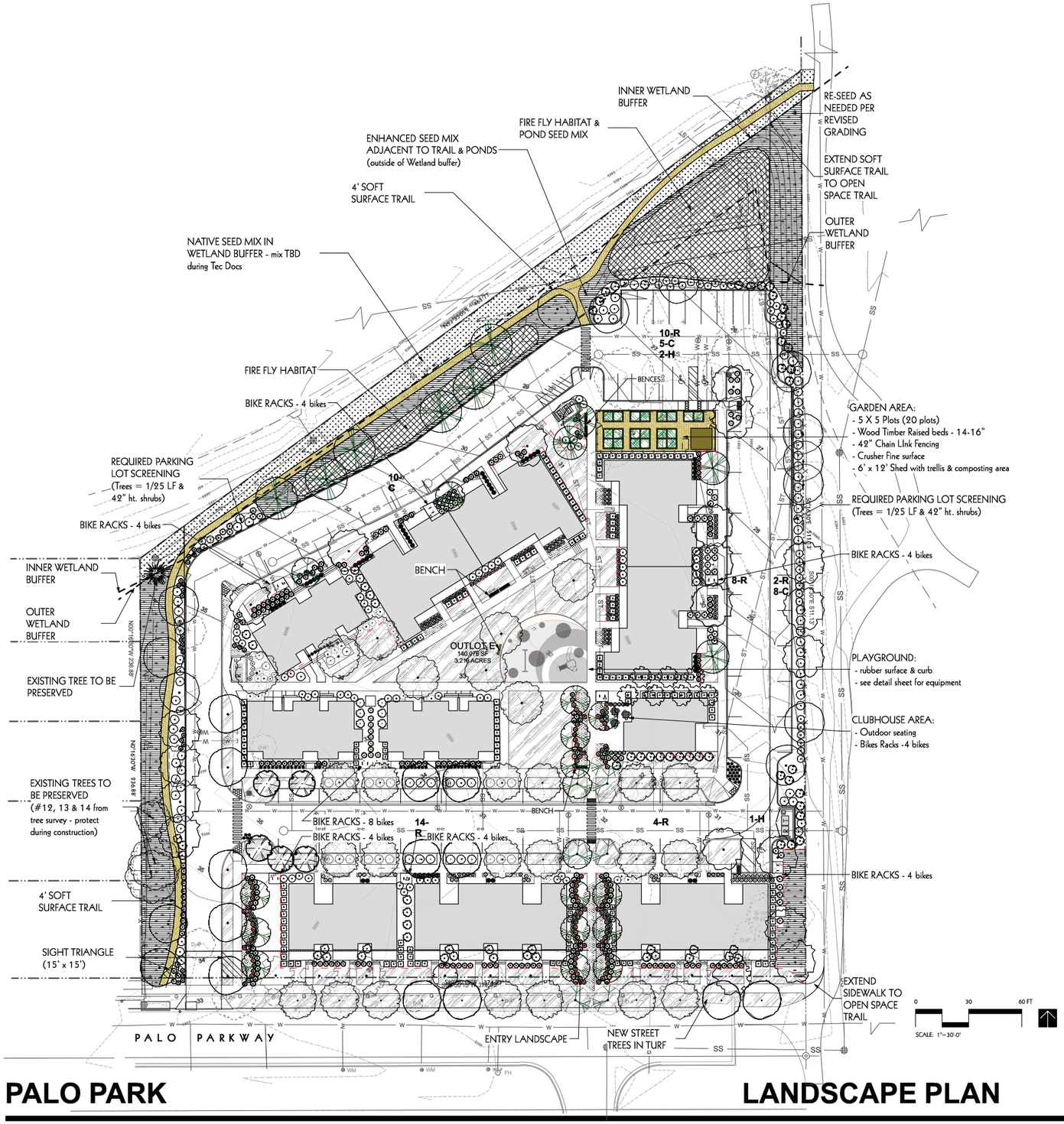
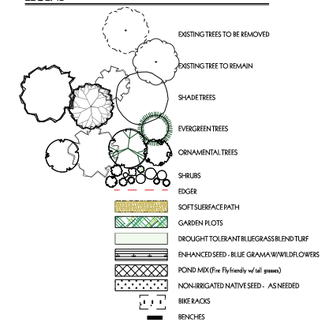


LEGEND



LANDSCAPE REQUIREMENTS: 05/05/16		
OVERALL SITE	**REQUIRED**	**PROVIDED/COMMENTS**
TOTAL LOT AREA:		140,075 SF
BUILDING AREA:		24,035 SF
TOTAL DRIVE:		35,633 SF
OPEN SPACE:		63600 SF = 45%
TOTAL NUMBER OF PARKING STALLS		63
TOTAL NUMBER BIKE RACKS	2 bicycle / DU = 88 spaces, @ 75% = 66 long term + 22 short term	102 bikes = 66 long term + 36 short term
INTERIOR PARKING LOT LANDSCAPED AREA @ 5%:	1,782	1,396 sf = 3.9%
PARKING LOT SCREENING:		
FROM ADJACENT STREET	**6' buffer**	N/A - parking lot does not abutt public street
FROM ADJACENT PROPERTIES		
Height & Opacity	Landscape Material 42" ht.	42" + provided
Width	6' Buffer	5.5' provided on east, min. 15.5' on north and 25' on west.
Trees	1 tree/25 LF - East side (170 lf) = 7trees	9 provided
	- north side (385 lf) = 16 trees	9 provided - area abuts multiple trees along drainage channel & conflicts with storm easement
STREETSCAPE:	**REQUIRED**	**PROVIDED/COMMENTS**
Palo Parkway	1 tree/40' - 375 LF = 10 trees	10 provided
Internal Streets	1 tree/40' - 953 LF = 48 trees	54 provided
MIMINUM PLANT SIZES:	**1 tree & 5 shrubs/1500 sf = 81,038 sf = 54 trees + 270 shrubs**	
Deciduous Trees	2" cal.	102 proposed
Evergreen Trees	6' ht.	5 proposed
Ornamental Trees	1.5" cal.	38 proposed
Shrubs	5 gallon container	1051 5-gal shrubs + 214 ornamental grasses

PALO PARK

LANDSCAPE PLAN

SR-L1.01

BOULDER HOUSING PARTNERS

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SITE REVIEW
05/05/2016

PLANT LIST: 0505/16					
KEY	QTY	COMMON NAME	SCIENTIFIC NAME	SIZE	O.C. SPACING
SHADE TREES:					
EO	19	English Oak	Quercus robur	2" clp.	as shown
HB	12	Hackberry	Celtis occidentalis	2" clp.	as shown
KC	17	Kentucky Coffeetree	Gymnocladus dioicus	2" clp.	as shown
LLC	6	Lanceleaf Cottonwood	Populus acuminata	2" clp.	as shown
LPT	15	London Planetree	Platanus acerifolia	2" clp.	as shown
OB	6	Ohio Buckeye	Aesculus glabra	2" clp.	as shown
PSG	7	Princeton Sentry Ginko	Ginko biloba 'Princeton Sentry'	2" clp.	as shown
SHL	8	Shademaster Honeylocust	Gleditsia triacanthos var. inermis 'Shademaster'	2" clp.	
WC	12	Northern Catalpa	Catalpa speciosa	2" clp.	as shown
TOTAL:	102				
EVERGREEN TREES:					
AP	5	Austrian Pine	Pinus nigra	6' ht.	
TOTAL:	5				
ORNAMENTAL TREES:					
ABP	22	Autumn Blaze Pear	Pyrus calleryana 'Autumn Blaze'	1-1/2" clp	as shown
ABS	5	Autumn Brilliance Serviceberry	Amelanchier x grandiflora'Autumn Brilliance'	1-1/2" clp	as shown
ASG	4	American Sweetgum	Liquidambar styraciflua	1-1/2" clp	as shown
SSC	5	Spring Snow Crabapple	Malus x 'Spring Snow'	1-1/2" clp	as shown
TF	3	Turkish Filbert	Corylus colurna	1-1/2" clp	as shown
TOTAL:	39				
SHRUBS:					
DN		Dwarf Ninebark	Physocarpus opulifolius 'Nanus'	5 gallon	5' o.c.
FCBS		First Choice Blue Spirea	Caaryopteris x clandonensis 'First Choice'	5 gallon	4' o.c.
GLFS		Gro-Low Fragrant Sumac	Rhus aromatica 'Gro-Low'	5 gallon	4' o.c.
GWR		Golden Wings Rose	Rosa 'Golden Wings'	5 gallon	4' o.c.
KD		Kelsey's Dwarf Red-Osier Dogwood	Cornus sericea 'Kelseyi'	5 gallon	3' o.c.
LDP		Lodense Privet	Ligustrum vulgare 'Lodense'	5 gallon	3.5' o.c.
MS		Mixed Spirea	Spiraea japonica	5 gallon	3' o.c.
MWW		Midnight Wine Weigela	Weigela florida 'Elvera'	5 gallon	3.5' o.c.
PBB		Compact Purple Butterfly Bush	Buddleja davidii nanhoensis `Petite Plum`	5 gallon	5' o.c.
PP		Mugo Pine	Pinus edulis	5 gallon	4' o.c.
RS		Russian Sage	Perovskia atriplicifolia	5 gallon	4' o.c.
TLS		Three-Leaf Sumac	Rhus trilobata	5 gallon	5' o.c.
WSR		White Meidiland Landscape Rose	Rosa Meidiland White	5 gallon	4' o.c.
TOTAL:	1070				
ORNAMENTAL GRASSES:					
DFG		Dwarf Fountain Grass	Pennisetum alopecuroides 'Hameln'	1 gallon	18" o.c.
FRG		Foerster Feather Reed Grass	Calamagrostis x acutiflora `Karl Foerster`	1 gallon	15" o.c.
MG		Morning Light Maiden Grass	Miscanthus sinensis 'Morning Light'	1 gallon	3' o.c.
TOTAL:	214				
PERENNIALS/GROUNDCOVERS: to be determined					
	500	flowering perennials		1 gallon	12" -18" o.c.
	1000	groundcover - strawberries		2.25" pots	12" o.c.
TOTAL	1500				

PLAN NOTES:

1 AL PLAN MATERIA SHAL MEE SPECIFICATION O TH AMERICAN ASSOCIATION O NURSERYMEN (AAN FO NUMBE ON GRADE AL TREE SHAL B BALLE AND BURLAPPE O EQUIVALENT AL PLAN MATERIAL SHAL HAV AL WIRE TWINE O OTHE CONTAINMEN MATERIALS EXCEP FO BURLAP REMOVED FROM TRUN AND ROO BAL O TH PLAN PRIO TC PLANTING.

2 TREE SHAL NO B PLANTED CLOSE ... FEE TC AN SEWE O WATE LINE TREE PLANTING SHAL B COORDINATED WITH XCE ENERG COMPANY LOCATION O AL UTILITIE SHAL B VERIFIED IN TH FIELD PRIO TC PLANTING.

3 AL SHRUB SHAL B PLANTED NC LES THAN 3 FROM AN SIDEWAL O CURB

4 GRADE SHAL B SE TC ALLOW FO PROPE DRAINAG AWAY FROM STRUCTURES GRADE SHAL MAINTAIN SMOOTH PROFILE AND B FRE O SURFAC DEBRIS BUMPS AND DEPRESSIONS.

5 DEVELOPER SHAL ENSUR THA TH LANDSCAP PLAN I COORDINATED WITH TH PLAN DONE BY OTHE CONSULTANT SC THA TH PROPOSED GRADING STORM DRAINAGE O OTHE CONSTRUCTION DOE NO CONFLIC NO PRECLUDE INSTALLATION AND MAINTENANC O LANDSCAP ELEMENT ON THI PLAN.

6 AL SHRUB BED AREA SHAL B MULCHED WITH 4 LAYE O WOOD BAR MULCH PERENNIAL AND GROUNDCOVE AREA SHAL B MULCHED WITH 4 LAYE O SHREDDED BAR MULCH NC FABRIC TC B INSTALLED IN AN O TH BEDS.

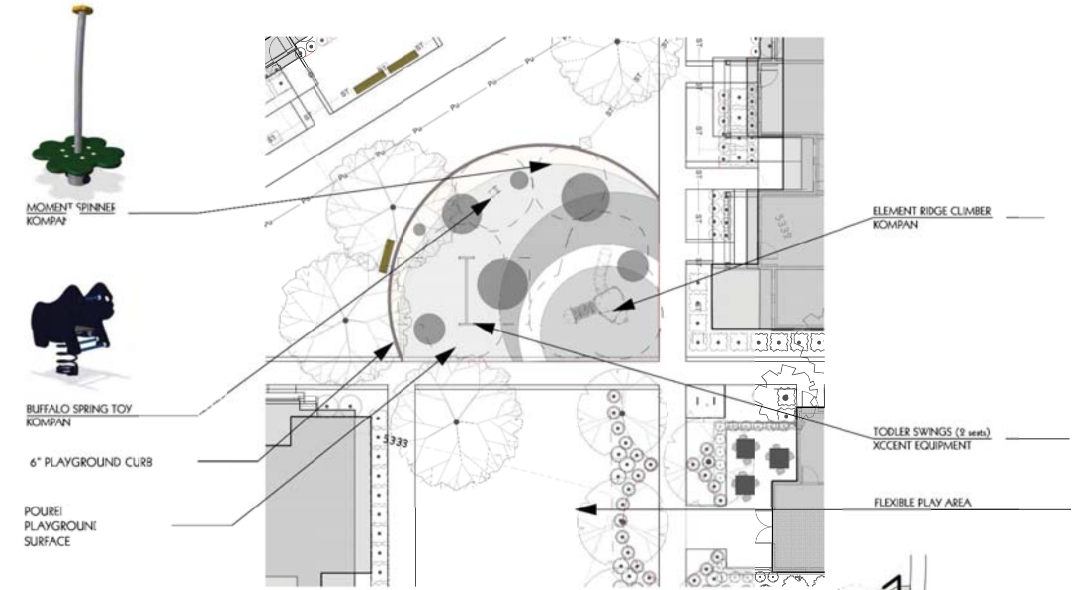
7 PRIO TC INSTALLATION O PLAN MATERIALS AREA THA HAV BEEN COMPACTED O DISTURBED BY CONSTRUCTION ACTIVIT SHAL B THOROUGHLY LOOSENED ORGANIC SOIL AMENDMENT SHAL B INCORPORATED A TH RAT O A LEAS THRE (3 CUBIC YARD PE 100 SQUAR FEE O LANDSCAP AREA IN AL TUR AND SHRU BEDS

8 TUR TC B DROUGH TOLERAN BLUEGRAS SOD ENHANCED SEE MI TC B BLU GRAMA WITH WILDFLOWE BLEND POND MI TC INCLUD TAL GRASSE TC ATTREACH FIR FLIES NATIV SEED TC B VARIET ACCEPTABL WITHIN TH WETLAND BUFFERS.

9 AL LANDSCAP (PLAN MATERIAL AND GRASS WIL B IRRIGATED WITH AN AUTOMATIC SYSTEM TUR AREA WIL HAV SPRAY ZONE PLANT WITH LIK WATE REQUIREMENT AR SHOWN TOGETHE IN ORDE TC HAV AN EFFICIEN US O WATER NATIV SEEDED AREA TC B IRRIGATED FO ESTABLISHMEN ONLY AL TREE TC HAV SEPARAT DRI SYSTEM.

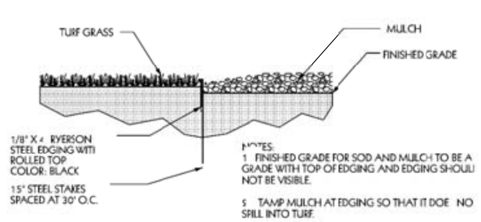
10 CONTRACTO SHAL VERIF AL MATERIA QUANTITIE PRIO TC INSTALLATION ACTUA NUMBE O PLAN SYMBOL SHAL HAV PRIORIT OVE TH QUANTIT DESIGNATED.

11 REFE TC TH CIT O BOULDE DESIGN AND CONSTRUCTION STREETSCAPING STANDARD FO AL WOR WITHIN PUBLIC AREAS INCLUDING TRE PROTECTION STANDARDS TH DEVELOPE WIL MAK EVER EFFOR POSSIBL TC PROTEC TREE WITHIN TH SIT USING TH SAM STANDARDS



PLAYGROUND ENLARGEMENT
SCALE 1/16" = 1'-0"

OPEN SPACE DIAGRAM
SCALE 1" = 60'-0"



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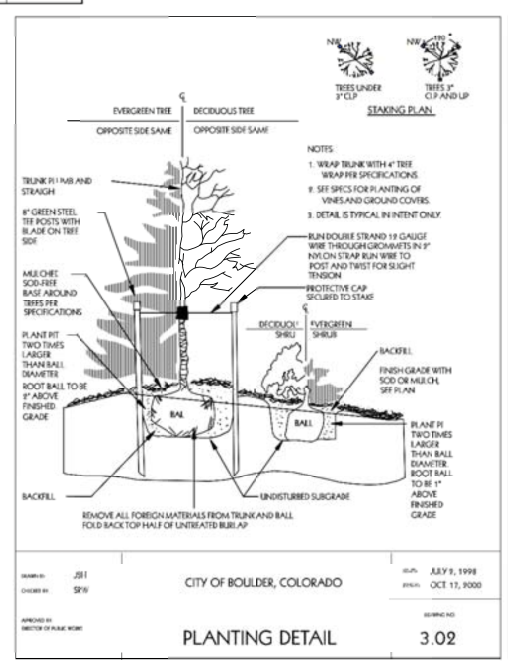

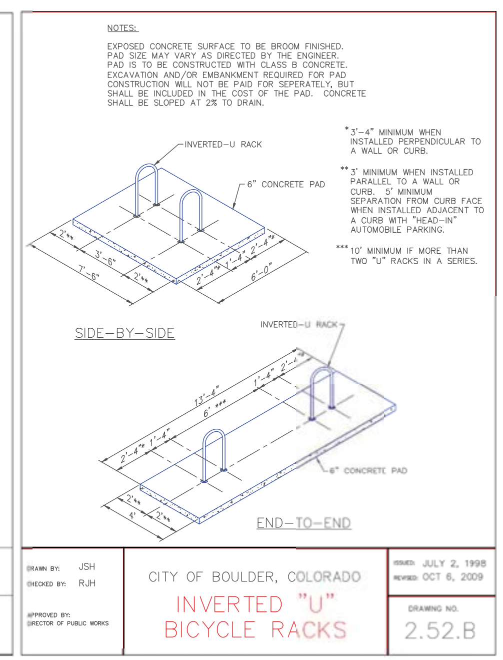

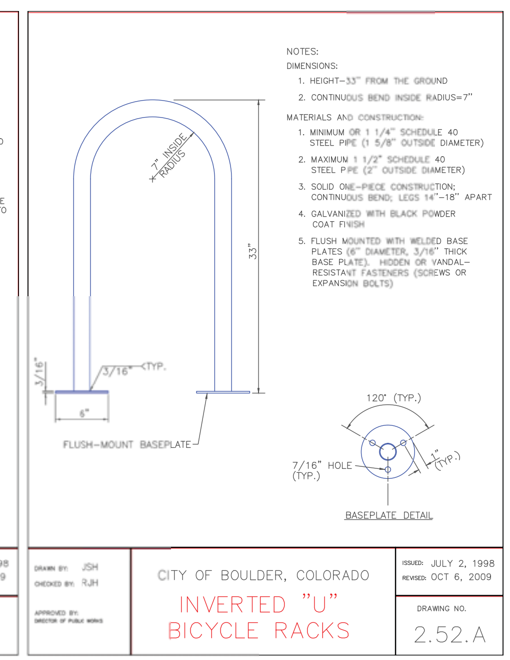

PALO PARK

LANDSCAPI NOTES & DETAILS

SR-L1.02

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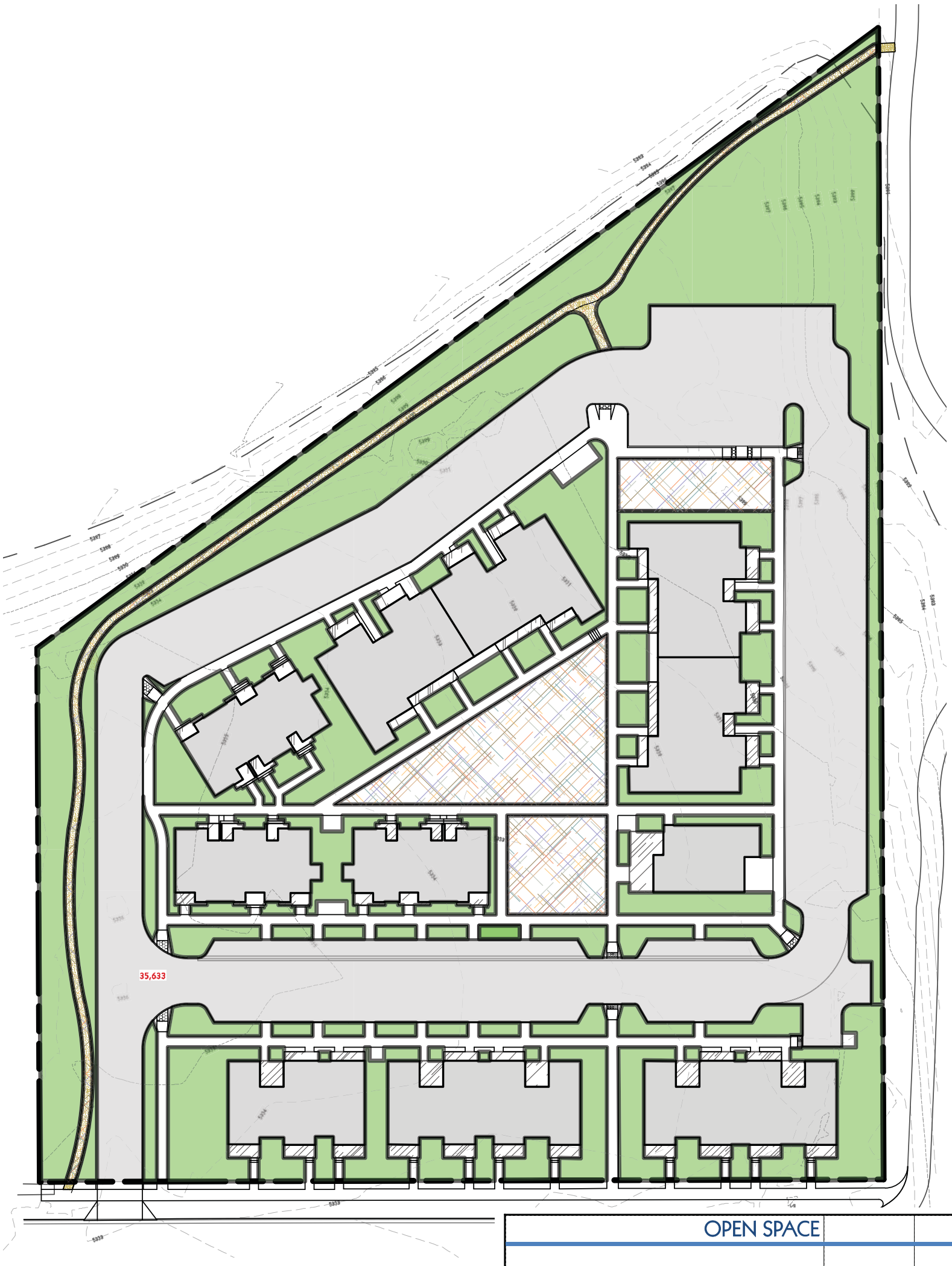


PARKING LOT

SITE LANDSCAPE

OUTDOOR ACTIVITY AREAS

INDIVIDUAL BALCONIES, DECKS, PATIO AREAS

USABLE OPEN SPACE DIAGRAM

SCALE: NTS
05/09/2016

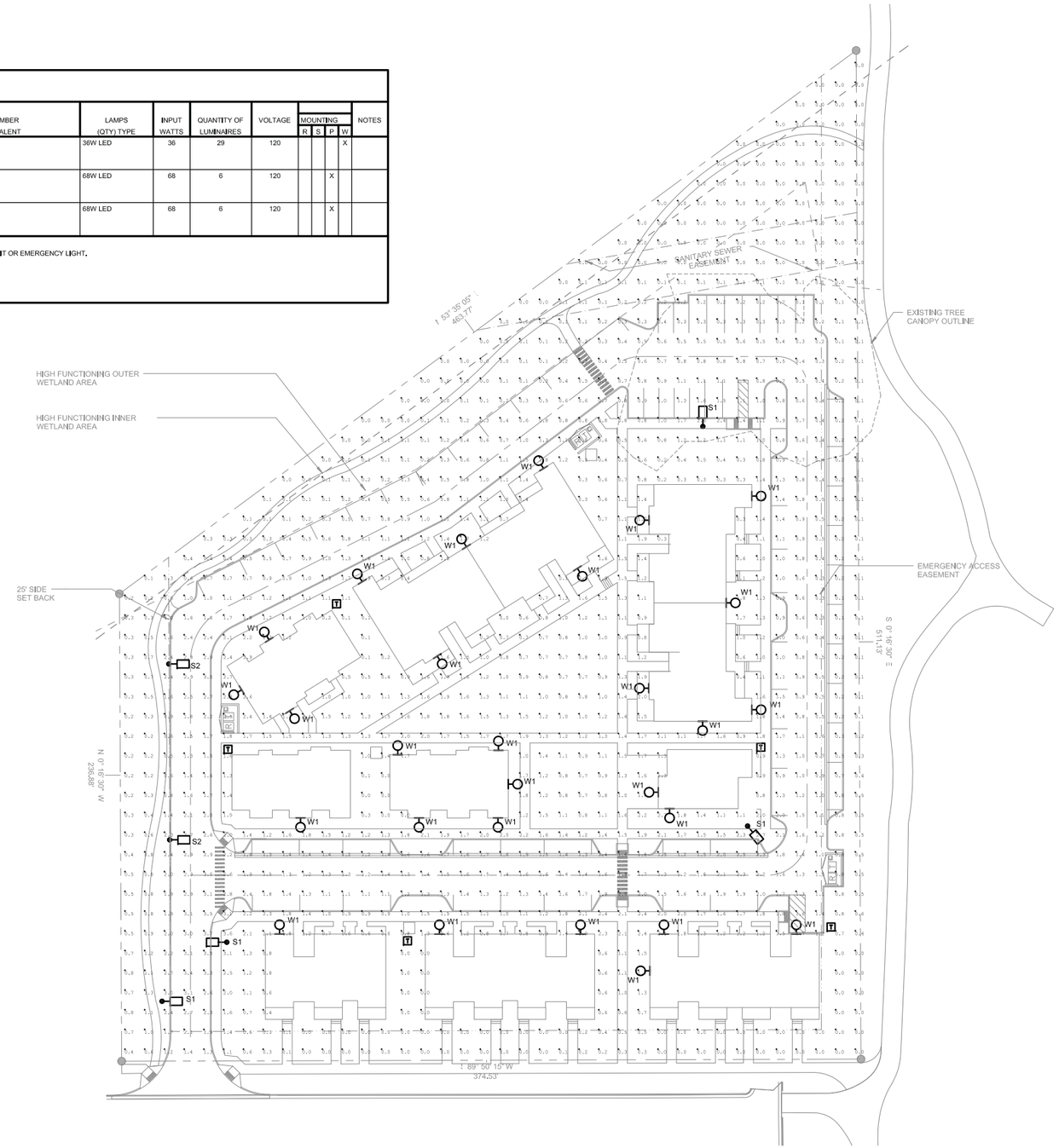
OPEN SPACE				
SITE AREA		140,075	SF	
Open Space Required	REQUIRED	PROPOSED		
Number of Units		44		
Minimum Open Space - 15%	21,011 SF	64,931	SF	46%
Minimum Private Open Space per Dwelling Unit	60 SF	97.6	SF	
Types of Open Space:	REQUIRED	PROPOSED		
Site Landscape		49,423	SF	
Outdoor Activity		10,878	SF	
Enhanced Paving		-	SF	
Private Decks & Patio Areas		4,294	SF	
Community Patio Area		336	SF	
TOTAL:		64,931	SF	46%

EXTERIOR LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER OR APPROVED EQUIVALENT	CATALOG SERIES NUMBER OR APPROVED EQUIVALENT	LAMPS (QTY) TYPE	INPUT WATTS	QUANTITY OF LUMINAIRES	VOLTAGE	MOUNTING R	MOUNTING S	MOUNTING P	MOUNTING W	NOTES
W1	WALL MOUNTED LED LUMINAIRE, MOUNTED AT 15' A.F.F. TYPE T3M DISTRIBUTION.	LITHONIA	DSX2-LED-20C-530-40K-T3M-MVOLT	36W LED	36	29	120				X	
S1	POLE MOUNTED PARKING LOT LED LUMINAIRE MOUNTED AT 20' A.F.F. TYPE T3M DISTRIBUTION.	LITHONIA	DSX1-LED-30C-700-40K-T3M-MVOLT	68W LED	68	6	120			X		
S2	POLE MOUNTED PARKING LOT LED LUMINAIRE MOUNTED AT 20' A.F.F. TYPE T3M DISTRIBUTION, FULL CUT OFF.	LITHONIA	DSX1-LED-30C-700-40K-T3M-MVOLT-HS	68W LED	68	6	120			X		

GENERAL NOTES:

1. TYPICAL LUMINAIRE TYPE DESIGNATIONS SHALL BE "F" FOR FLUORESCENT, "H" FOR HID, "K" FOR INCANDESCENT, "L" FOR LED, "S" FOR SITE, AND "X" FOR EMERGENCY EXIT OR EMERGENCY LIGHT.
2. FLUORESCENT BALLASTS SHALL BE ELECTRONIC PROGRAM START UNLESS OTHERWISE NOTED. LAMPS SHALL BE MATCHED TO BALLAST FOR COORDINATED SYSTEM.
3. COORDINATE WALL MOUNTING HEIGHTS WITH ARCHITECTURAL PLANS, ELEVATIONS AND DETAILS.
4. MOUNTING TYPE DESIGNATIONS SHALL BE "R" FOR RECESSED, "S" FOR SURFACE, "P" FOR POLE, AND "W" FOR WALL MOUNTED FIXTURES.



PALO PARK

SITE PHOTOMETRIC PLAN

SR-E1.01

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15_005_00

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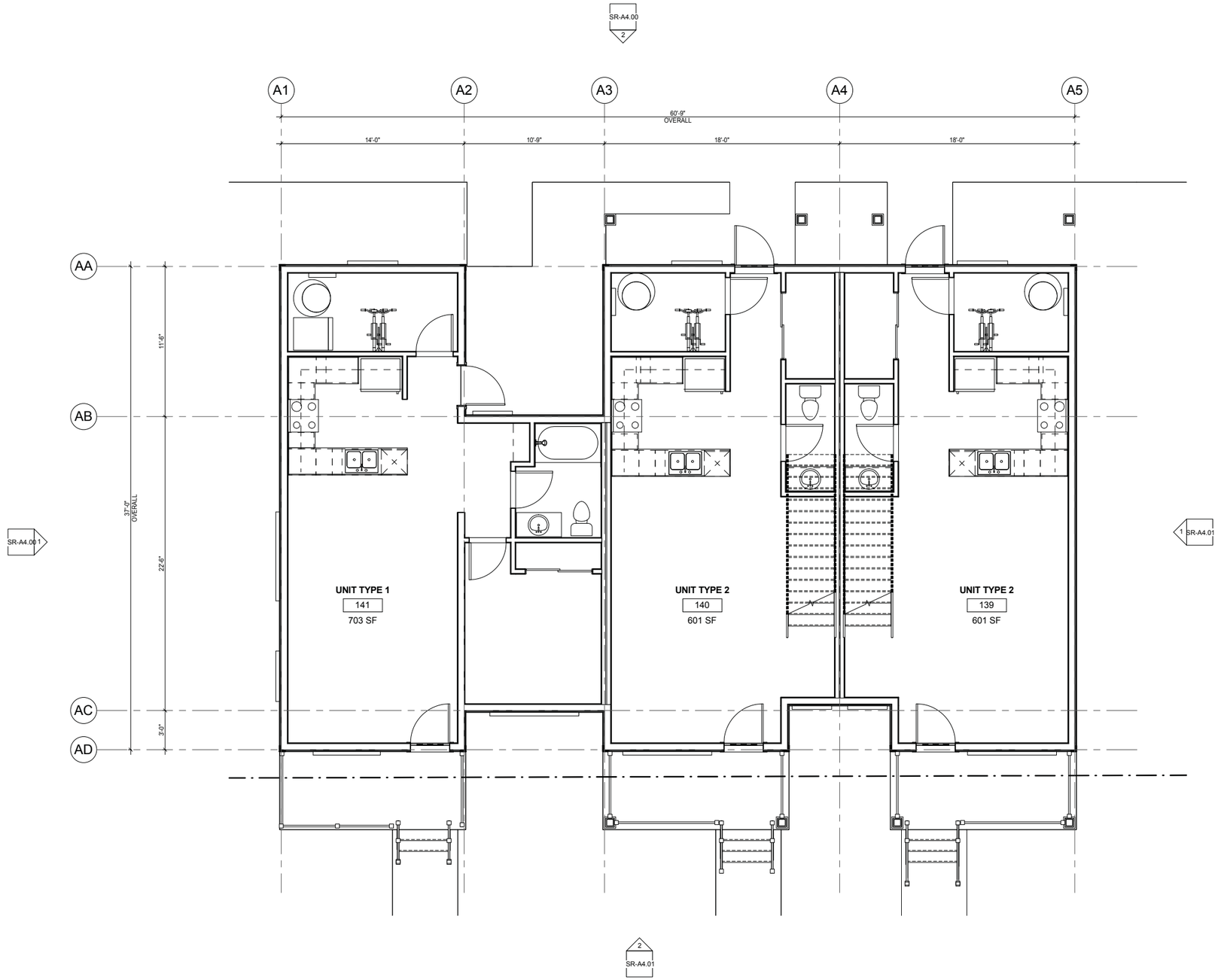
80303

SITE REVIEW
04/01/2016



1 BUILDING TYPE A - FIRST FLOOR PLAN
1/4" = 1'-0"

GROSS AREA: 2,093 SF

NORTH

PALO PARK

FIRST FLOOR PLAN - ROW HOMES (BLDG A)

SR-A2.01

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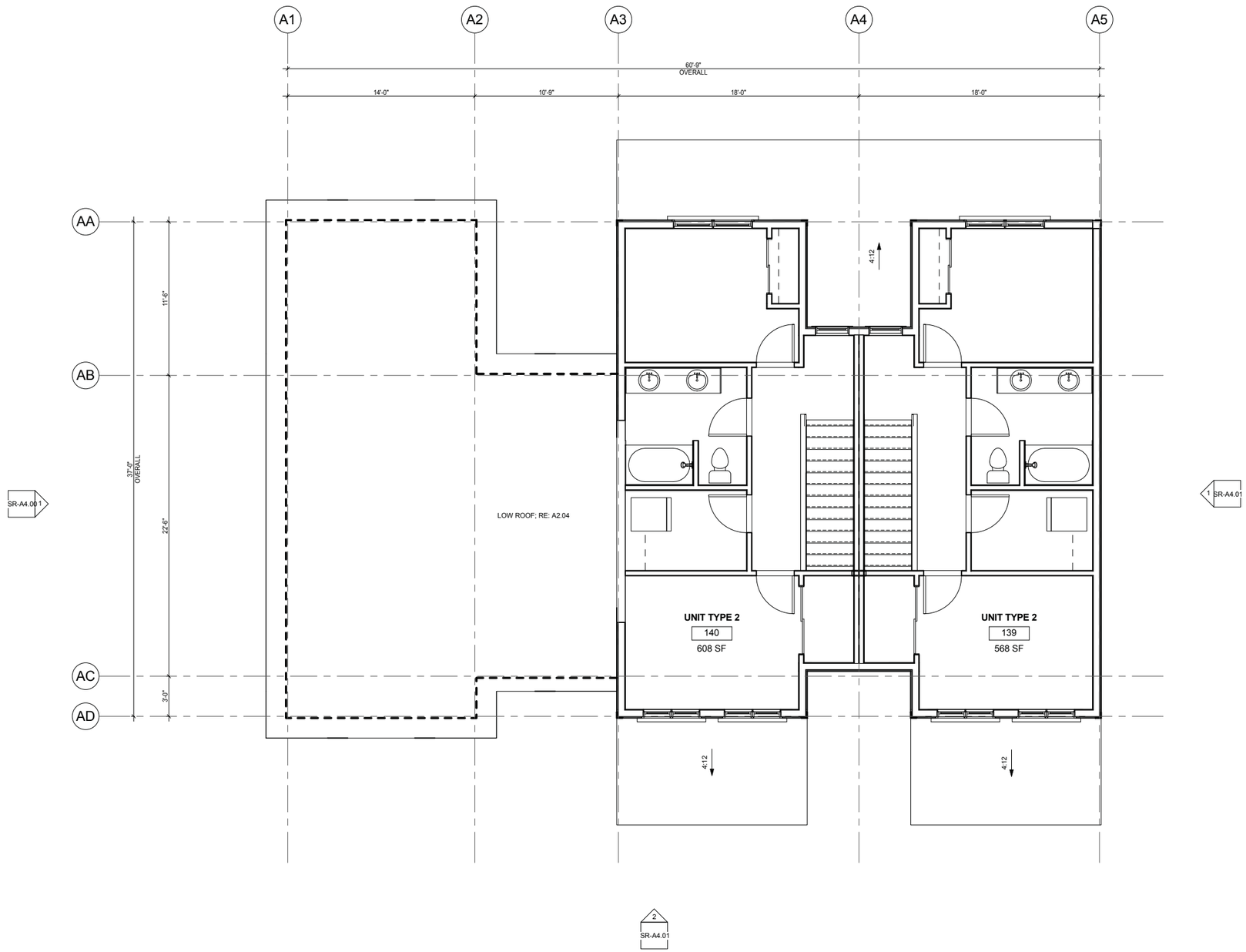

1 UILDING TYPE A - SECOND FLOOR PLAN
1/4" = 1'-0"

GROSS AREA: 1,261 SF

NORTH

PALO PARK

SECOND FLOOR PLAN - ROW HOMES (BLDG A)

SR-A2.02

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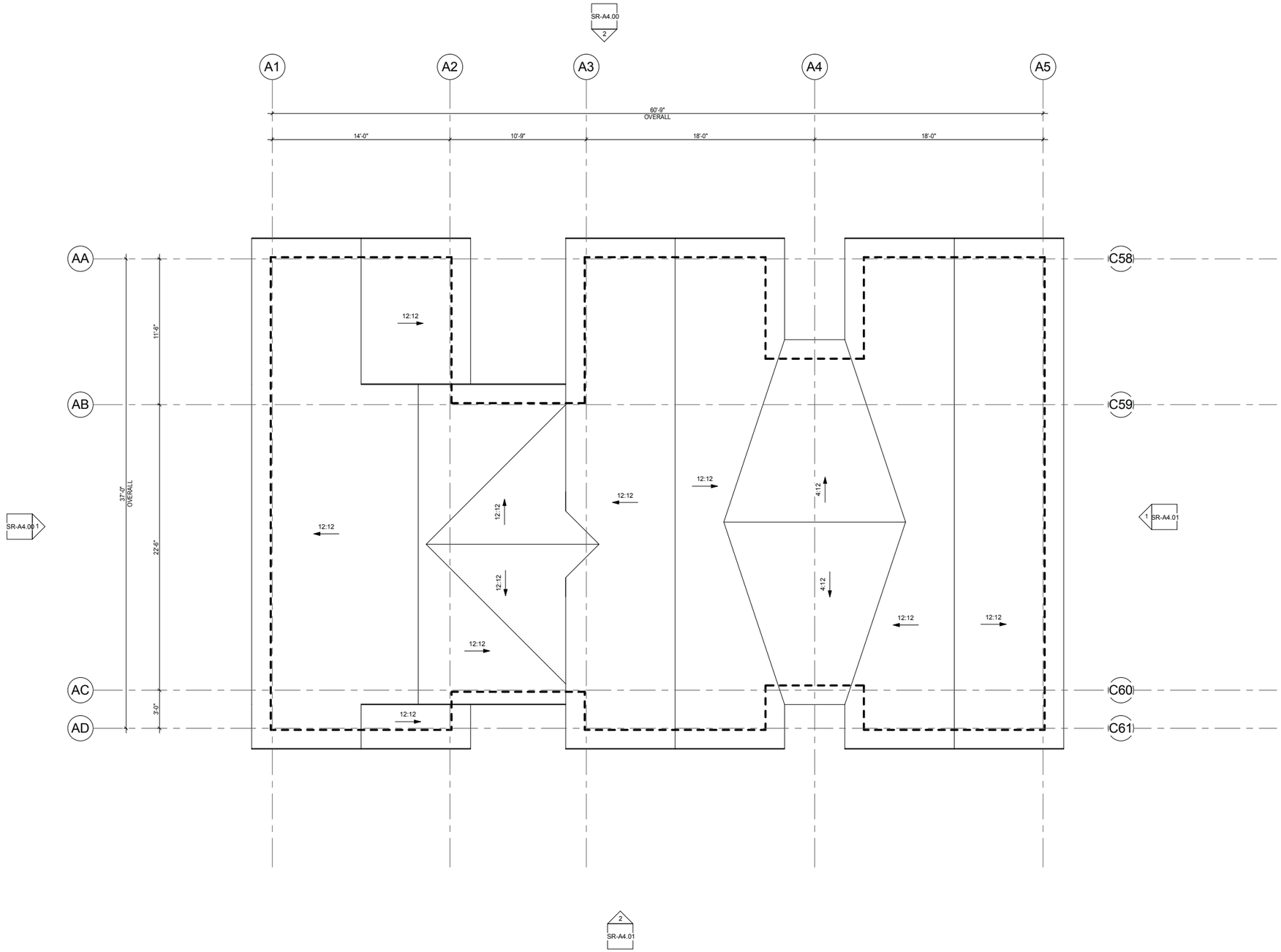

1 BUILDING TYPE A - ROOF PLAN
1/4" = 1'-0"

NORTH

PALO PARK

ROOF PLAN - ROW HOMES (BLDG A)

SR-A2.04

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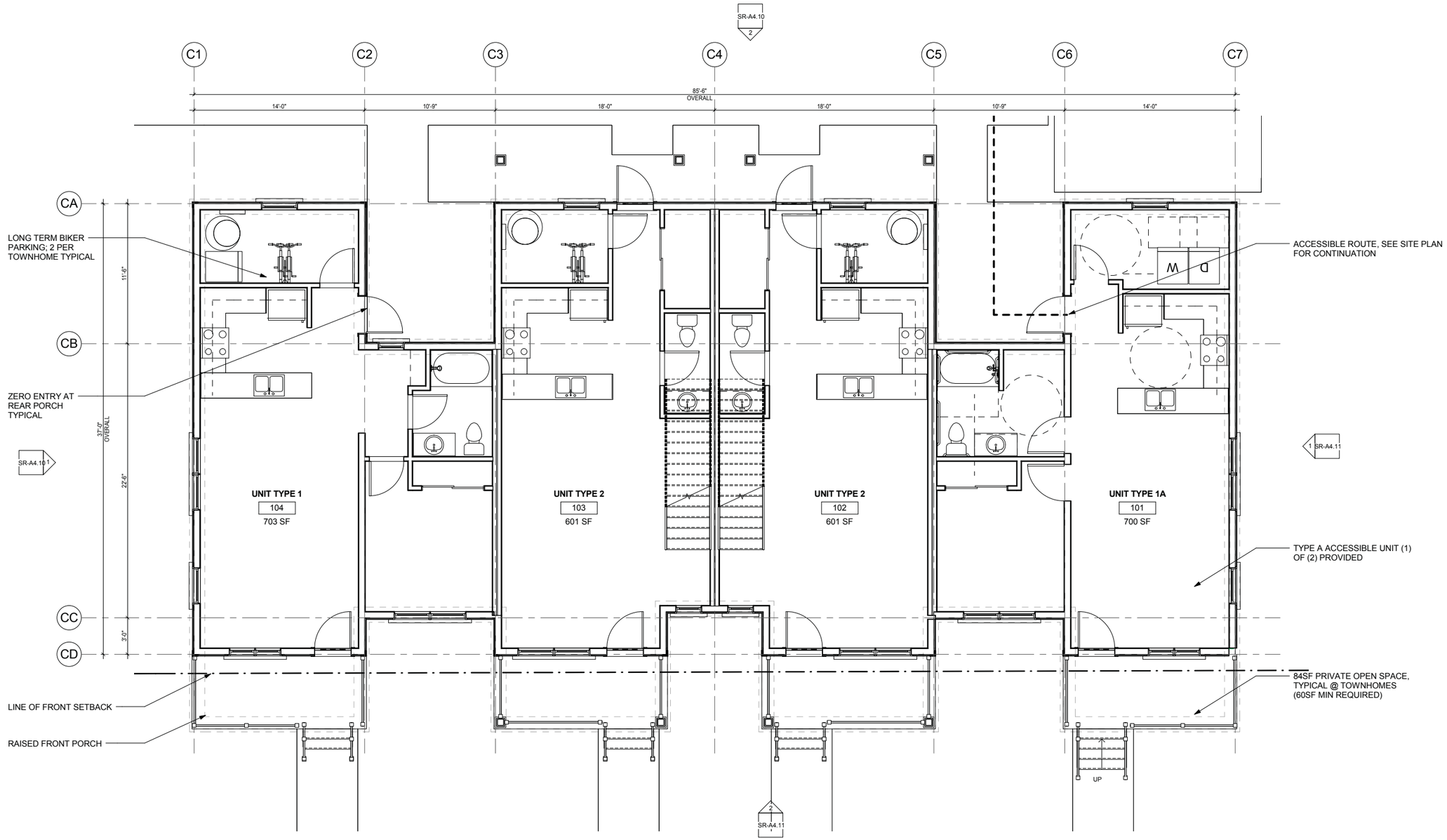

1 BUILDING TYPE B-C - FIRST FLOOR PLAN
1/4" = 1'-0"

GROSS AREA: 2,863 SF

NORTH

PALO PARK

FIRST FLOOR PLAN - ROW HOMES (BLDGS B & C)

SR-A2.11

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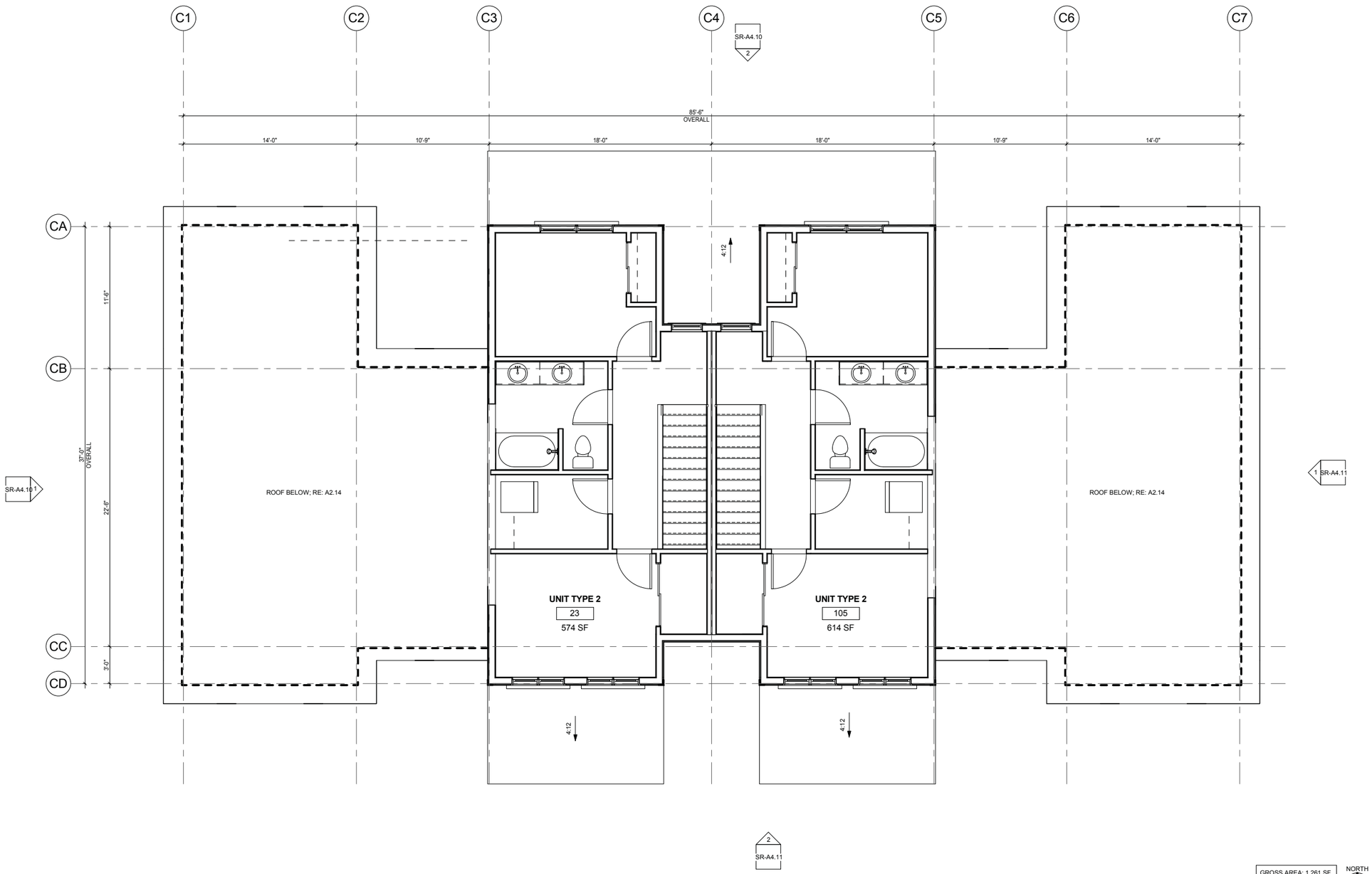

1 BUILDING TYPE B-C - SECOND FLOOR PLAN
1/4" = 1'-0"

PALO PARK

SECOND FLOOR PLAN - ROW HOMES (BLDGS B & C)

SR-A2.12

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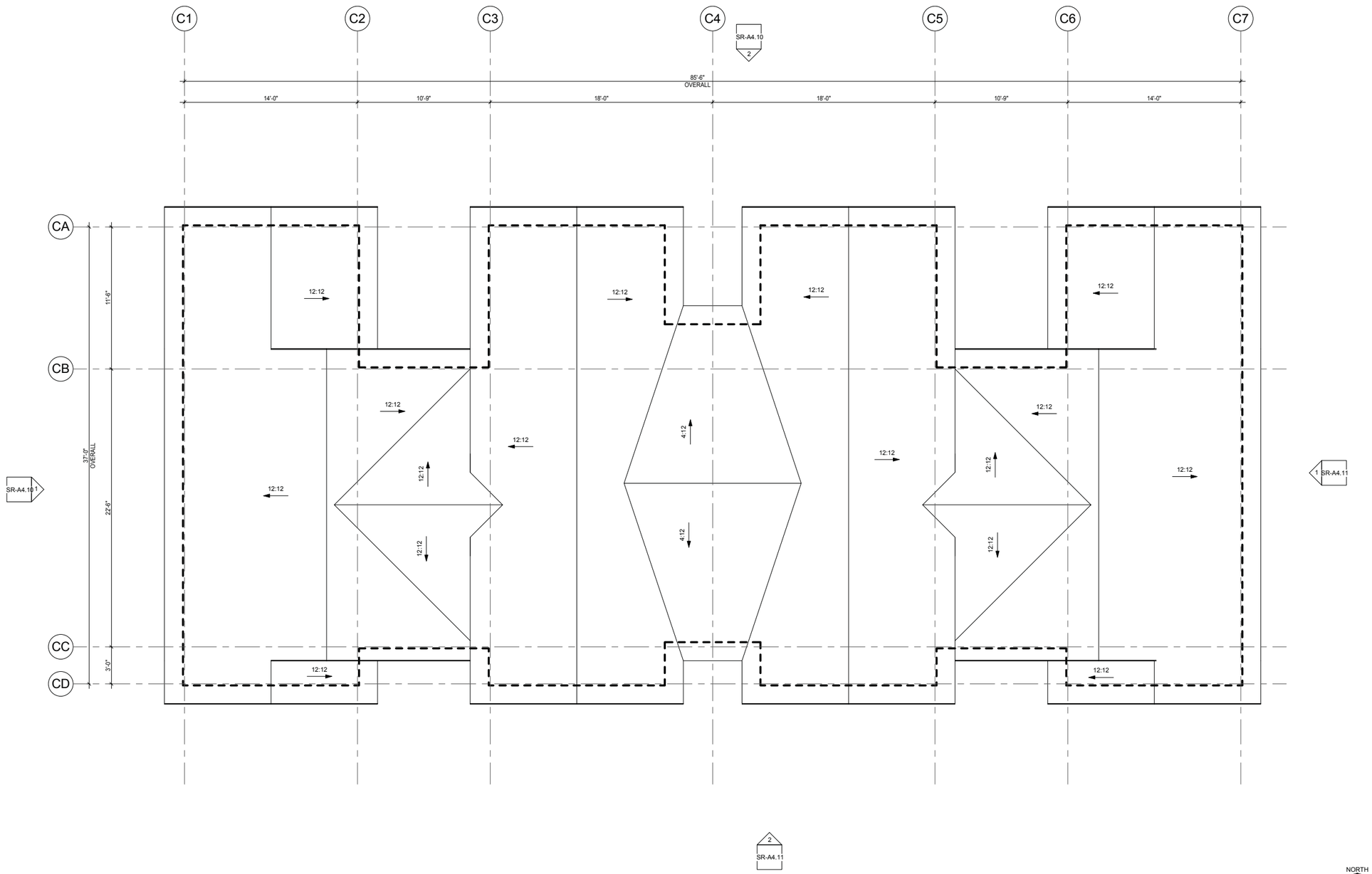

1 BUILDING TYPE B-C - ROOF PLAN
1/4" = 1'-0"

PALO PARK

ROOF PLAN - ROW HOMES (BLDGS B & C)

SR-A2.14

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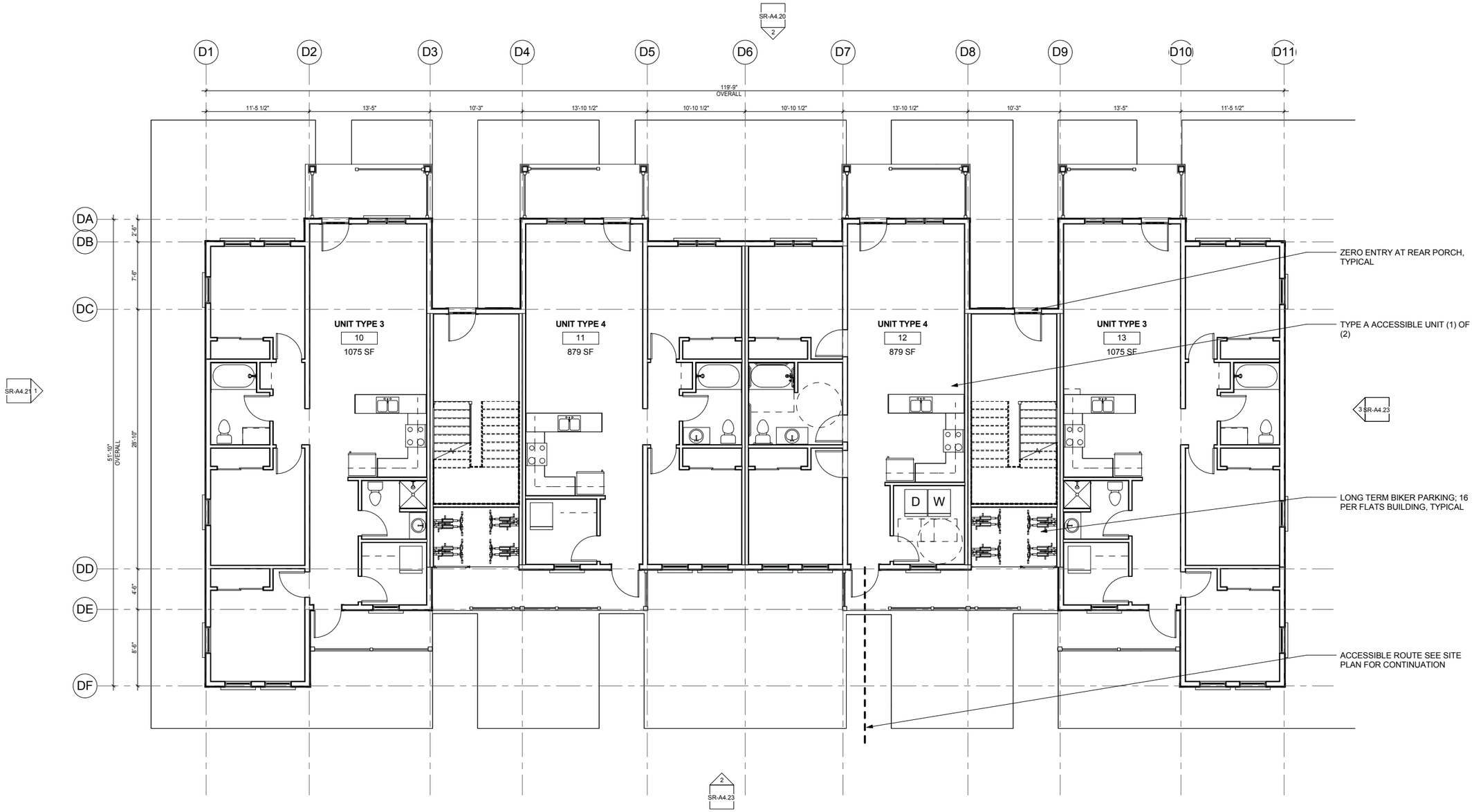

1 BUILDING TYPE D-E - FIRST FLOOR PLAN
3/16" = 1'-0"

PALO PARK

FIRST FLOOR - STACKED FLATS (BLDGS D & E)

SR-A2.21

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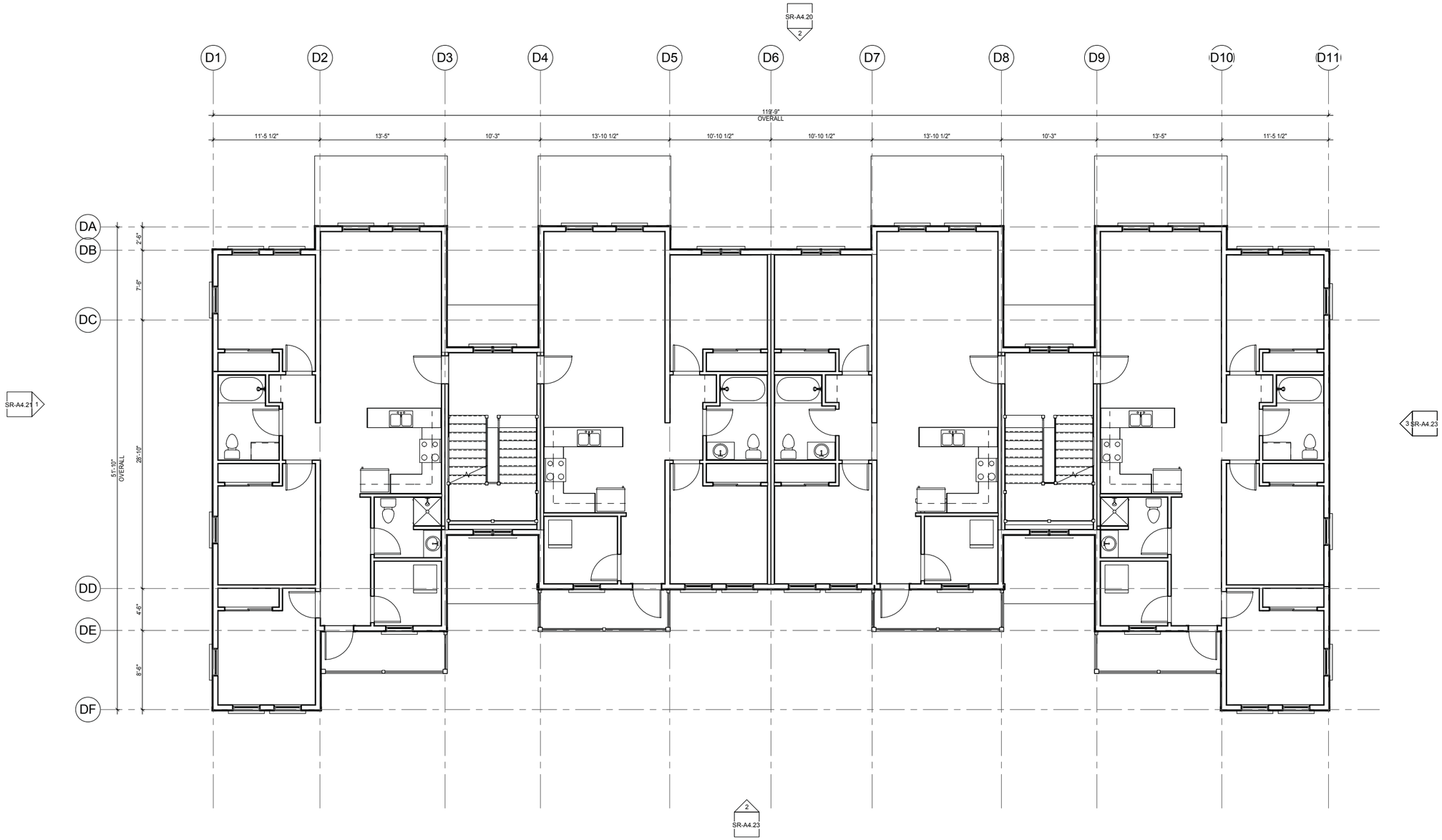

1 BUILDING TYPE D-E - SECOND FLOOR PLAN
3/16" = 1'-0"

PALO PARK

SECOND FLOOR - STACKED FLATS (BLDGS D & E)

SR-A2.22

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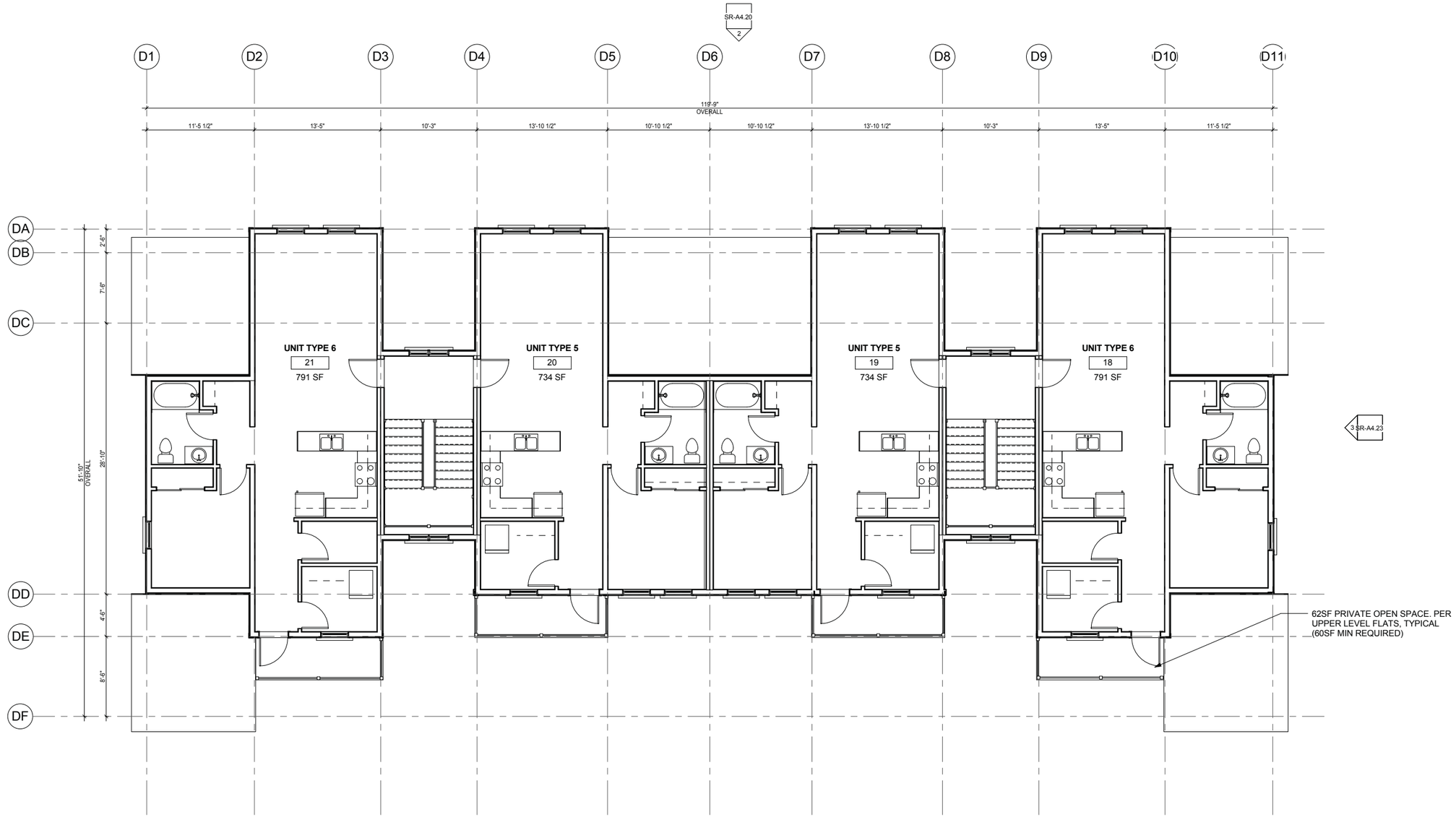

1 BLDG TYPE 3 - THIRD FLOOR PLAN
3/16" = 1'-0"

GROSS AREA: 3,776 SF

NORTH

PALO PARK

THIRD FLOOR - STACKED FLATS (BLDGS D & E)

SR-A2.23

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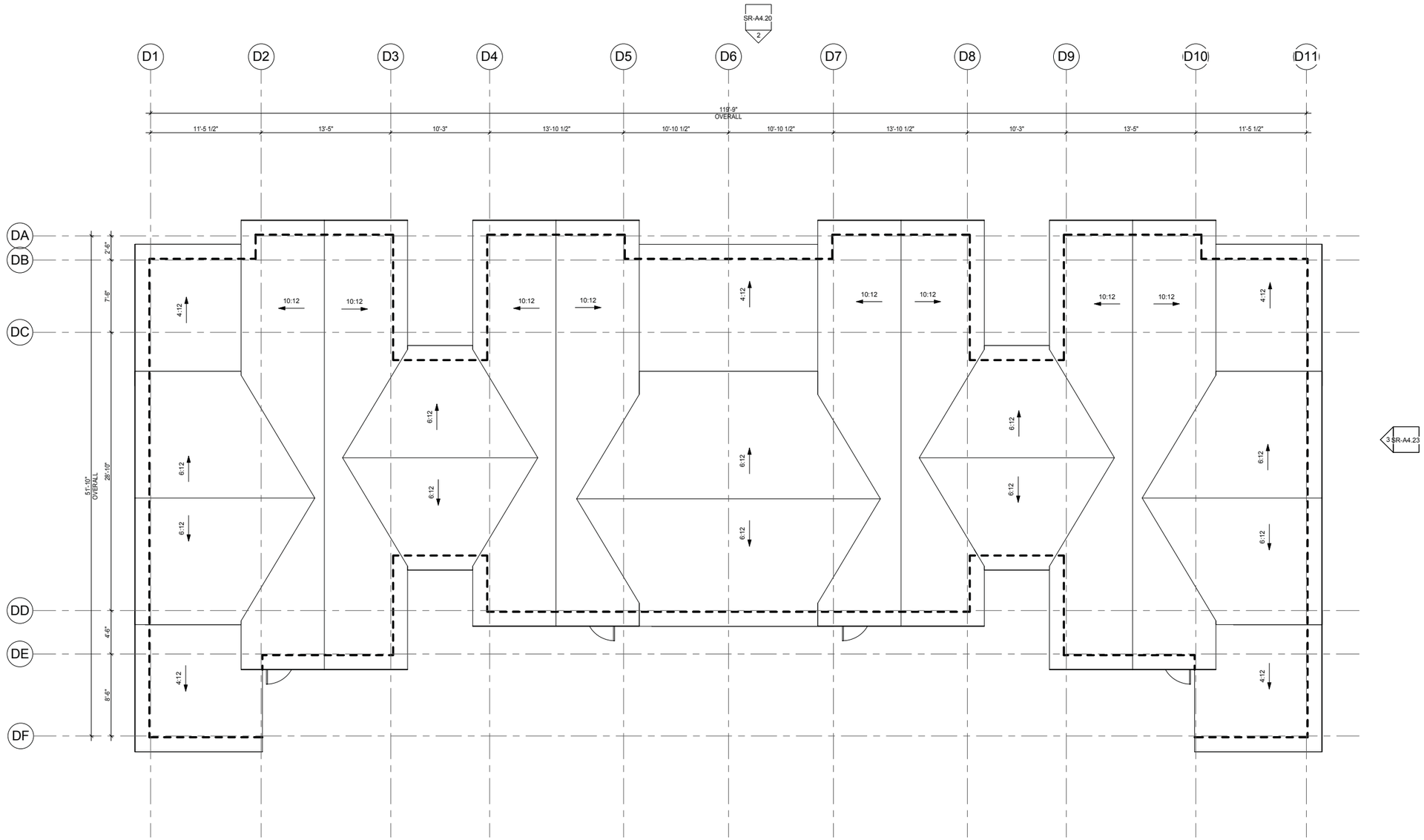

1 BLDG TYPE 3 - ROOF PLAN
3/16" = 1'-0"

NORTH

PALO PARK

ROOF PLAN - STACKED FLATS (BLDGS D & E)

SR-A2.24

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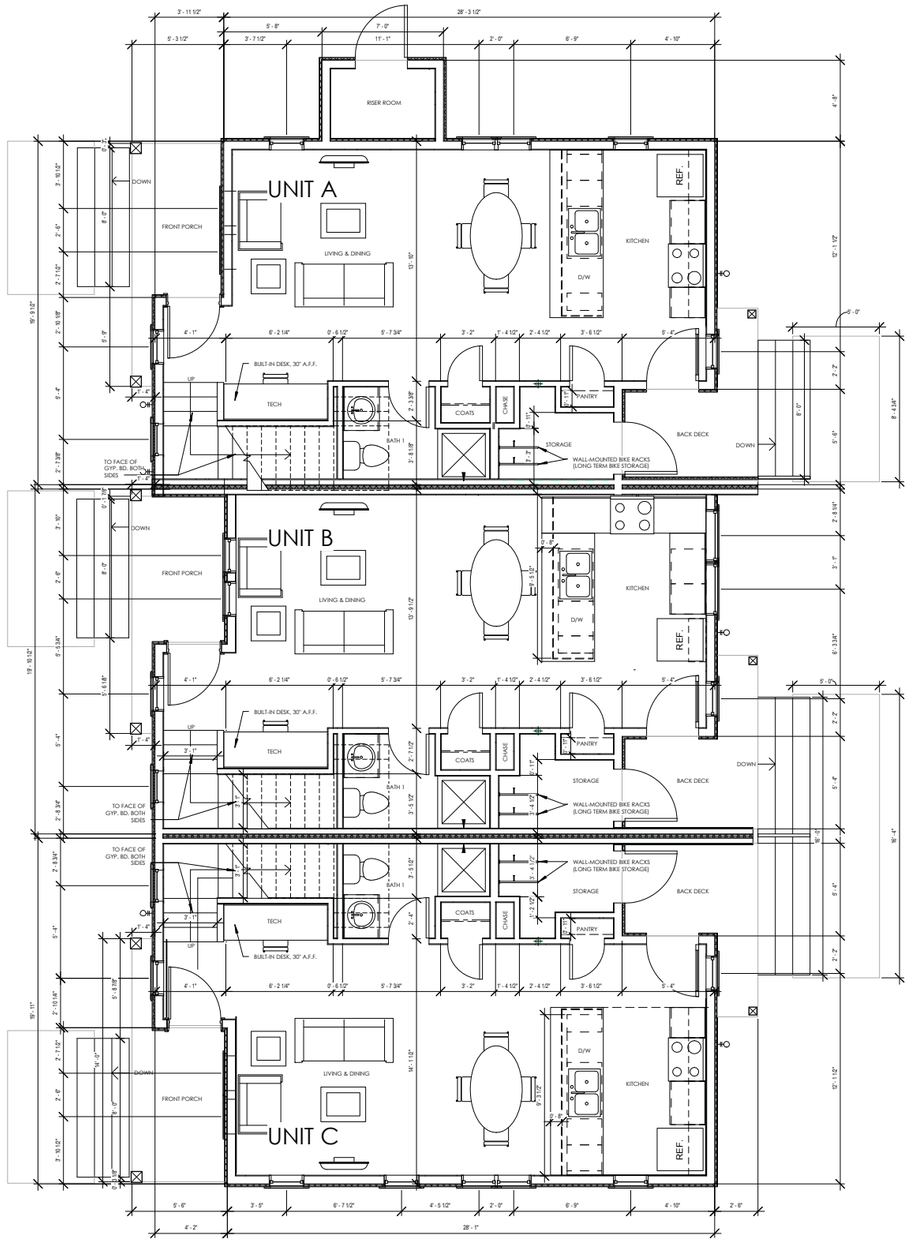
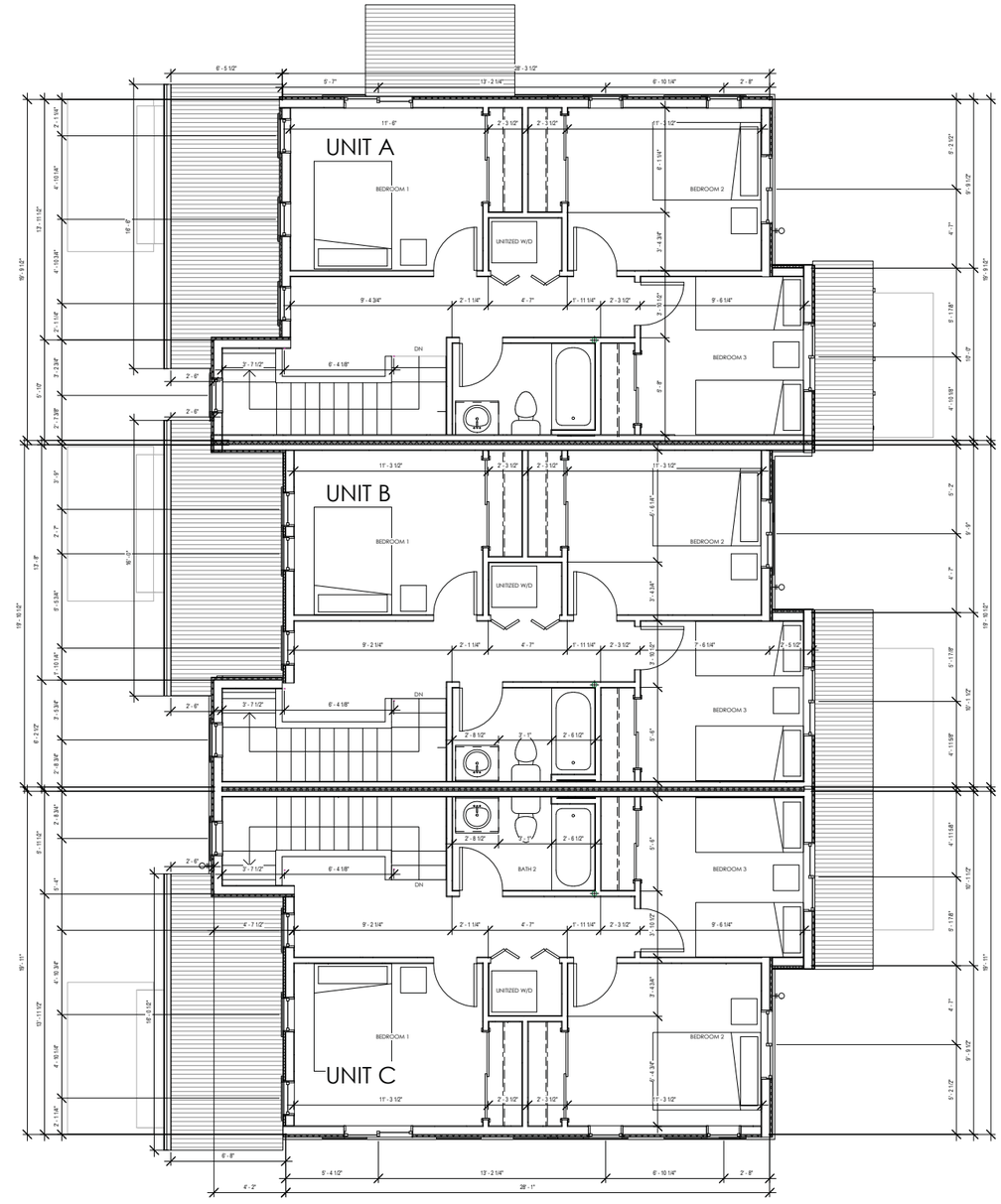


1 MAIN LEVEL PLAN
1/4" = 1'-0"



2 UPPER LEVEL PLAN
1/4" = 1'-0"

PALO PARK TOWNHOMES

MAIN & UPPER LEVEL PLANS

SR-A2.31

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LODESTONE DESIGN GROUP

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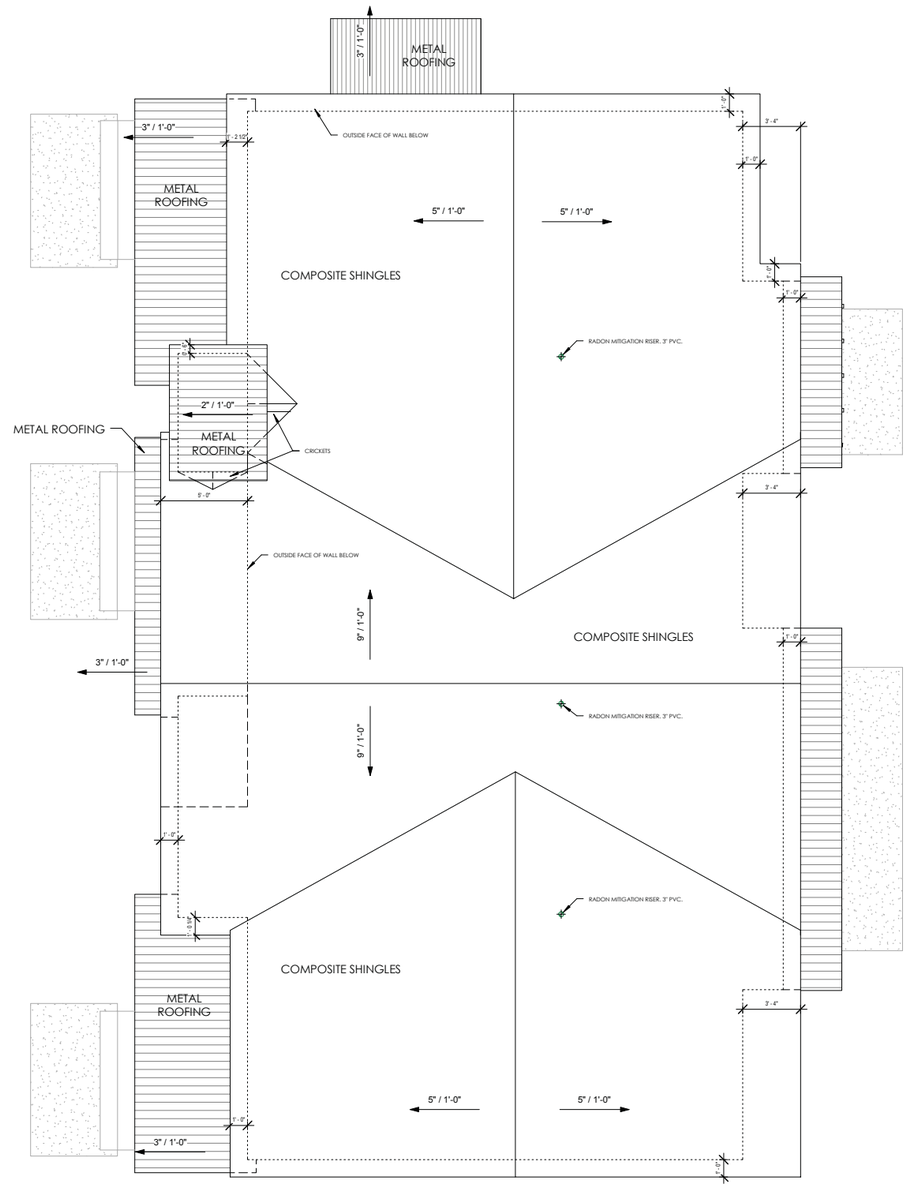

1 ROOF PLAN
1/4" = 1'-0"

PALO PARK TOWNHOMES

ROOF PLAN

SR-A2.32

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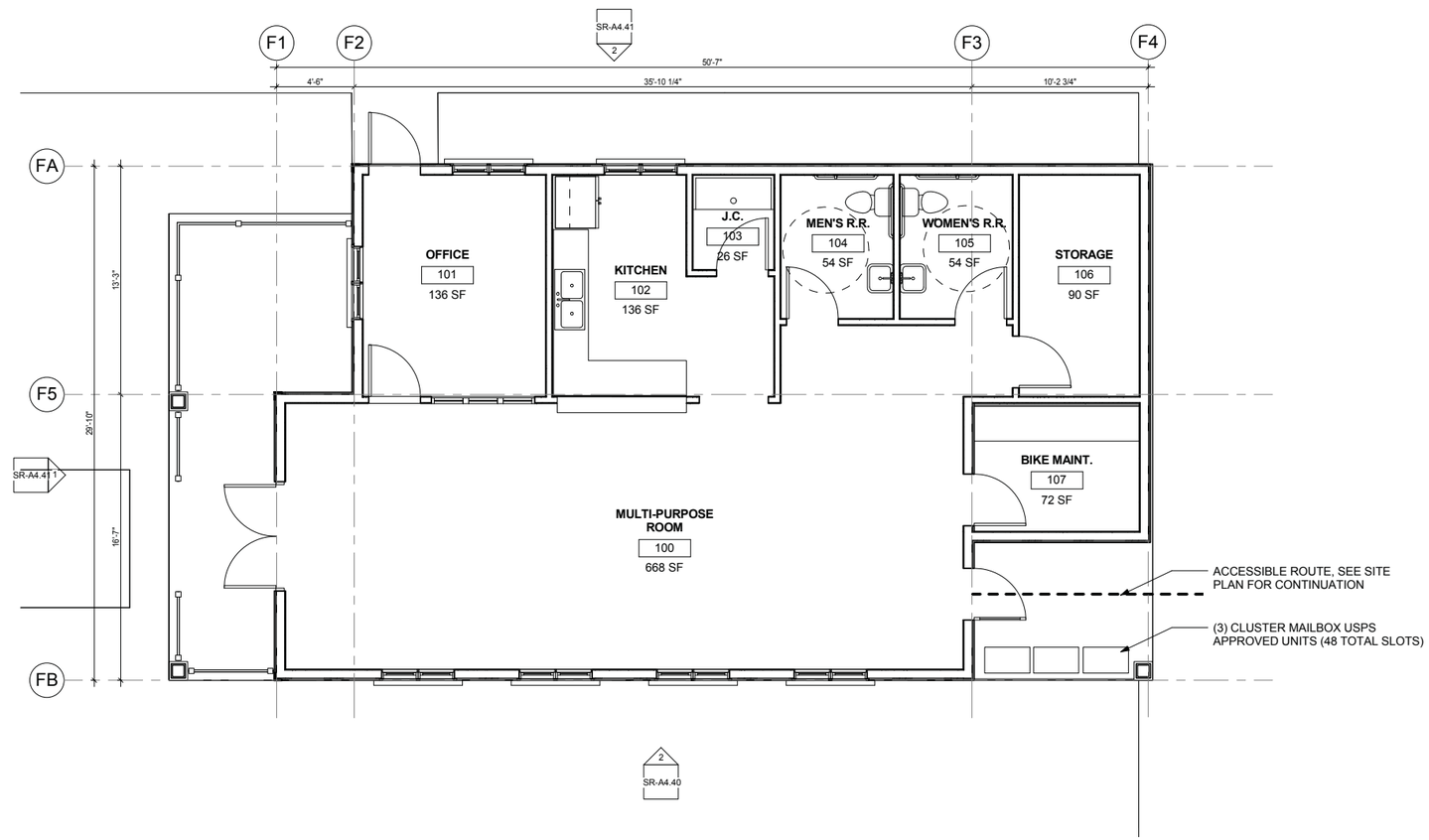

1 COMMUNITY CENTER - FIRST FLOOR PLAN
1/4" = 1'-0"

PALO PARK

FIRST FLOOR PLAN - COMMUNITY CENTER

SR-A2.41

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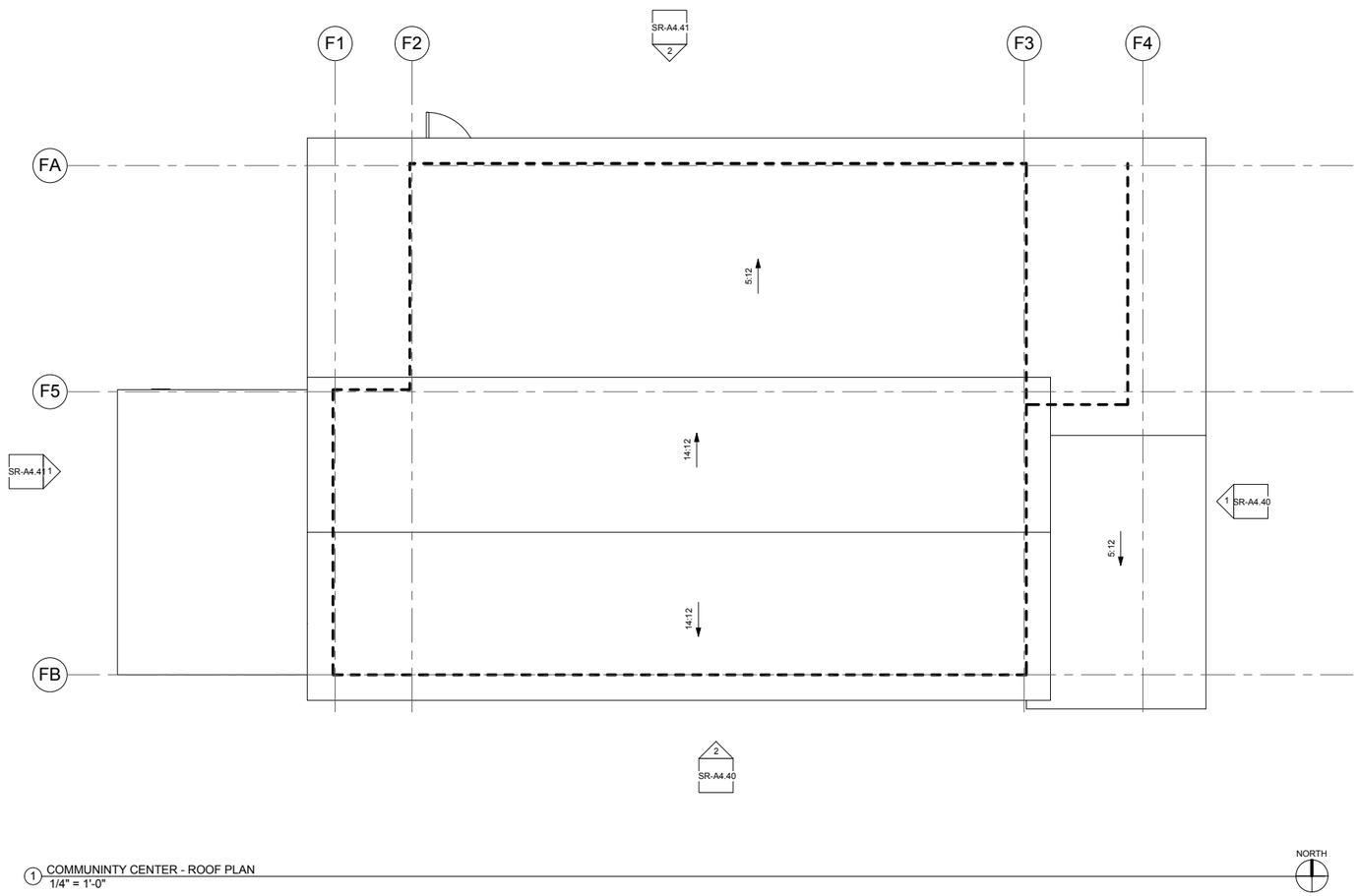

PALO PARK

ROOF PLAN - COMMUNITY CENTER

SR-A2.42

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SITE REVIEW
04/04/2016

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MATERIALS LIST	
Key Value	Keynote Text
7.1	LAP SIDING; COLORS TBD
7.2	SHAKE SIDING; COLORS TBD
7.3	ASPHALT ROOFING
7.4	METAL ROOFING
8.1	HM DOOR; COLOR TBD
8.2	VINYL WINDOW
8.3	DECORATIVE GABLE VENT; COLOR TBD
9.1	FASCIA BOARD 12", W/ BOXED EAVE; COLOR TBD

2 NORTH ELEVATION - ROW HOMES (3)
1/4" = 1'-0"

1 WEST ELEVATION - ROW HOMES (3)
1/4" = 1'-0"

PALO PARK

ELEVATIONS - ROW HOMES (BLDG A)

SR-A4.00

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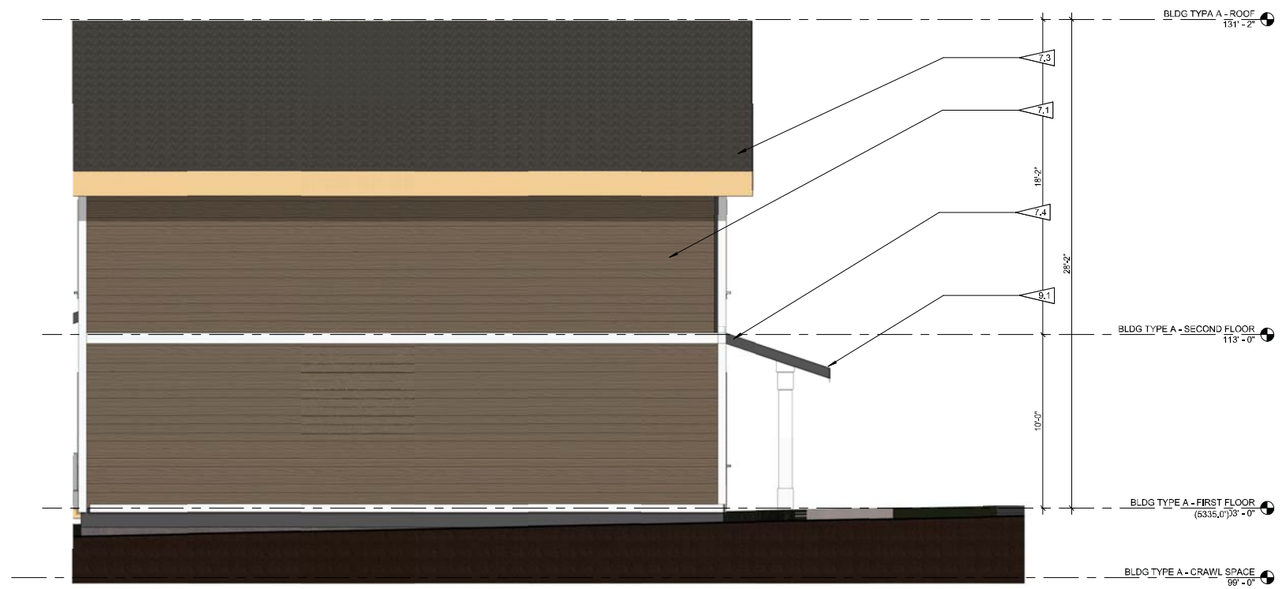
MATERIALS LIST	
Key Value	Keynote Text
7.1	LAP SIDING; COLORS TBD
7.2	SHAKE SIDING; COLORS TBD
7.3	ASPHALT ROOFING
7.4	METAL ROOFING
8.1	HM DOOR; COLOR TBD
8.2	VINYL WINDOW
8.3	DECORATIVE GABLE VENT; COLOR TBD
9.1	FASCIA BOARD 12", W/ BOXED EAVE; COLOR TBD

2 SOUTH ELEVATION - ROW HOMES (3)
1/4" = 1'-0"



1 EAST ELEVATION - ROW HOMES (3)
1/4" = 1'-0"

PALO PARK

ELEVATIONS - ROW HOMES (BLDG A)

SR-A4.01

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4 PERSPECTIVE - BUILDING A - SOUTH WEST

3 PERSPECTIVE - BUILDING A - SOUTH EAST

2 PERSPECTIVE - BUILDING A - NORTH WEST

1 PERSPECTIVE - BUILDING A - NORTH EAST

PALO PARK

PERSPECTIVES - ROW HOMES (BLDG A)

SR-A4.02

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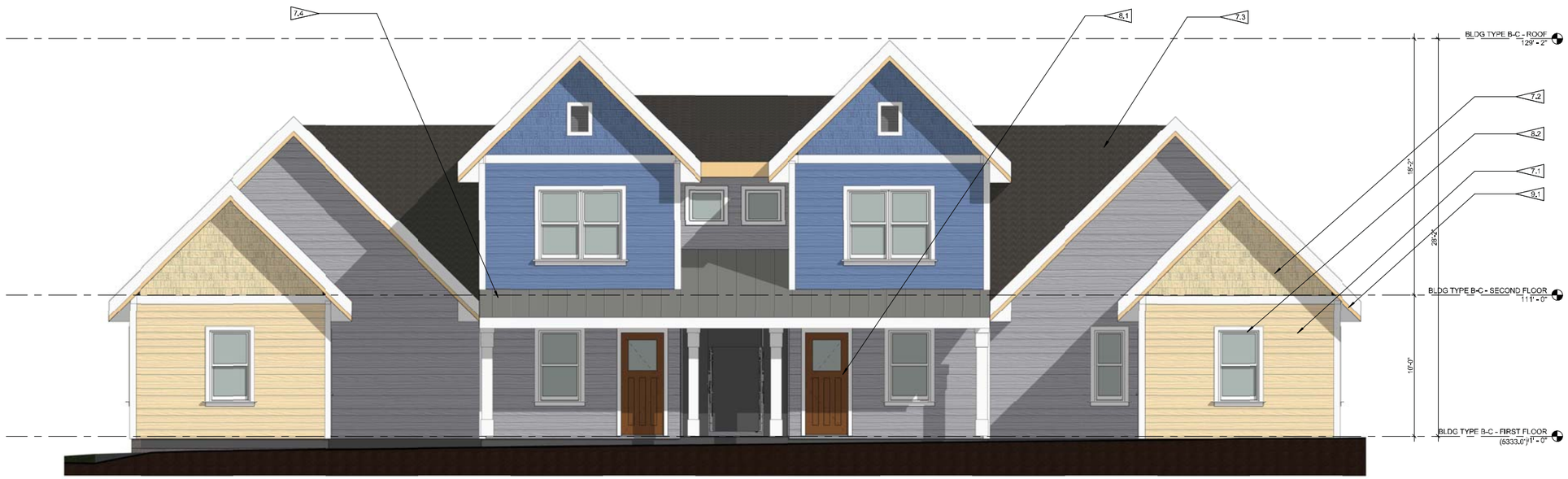
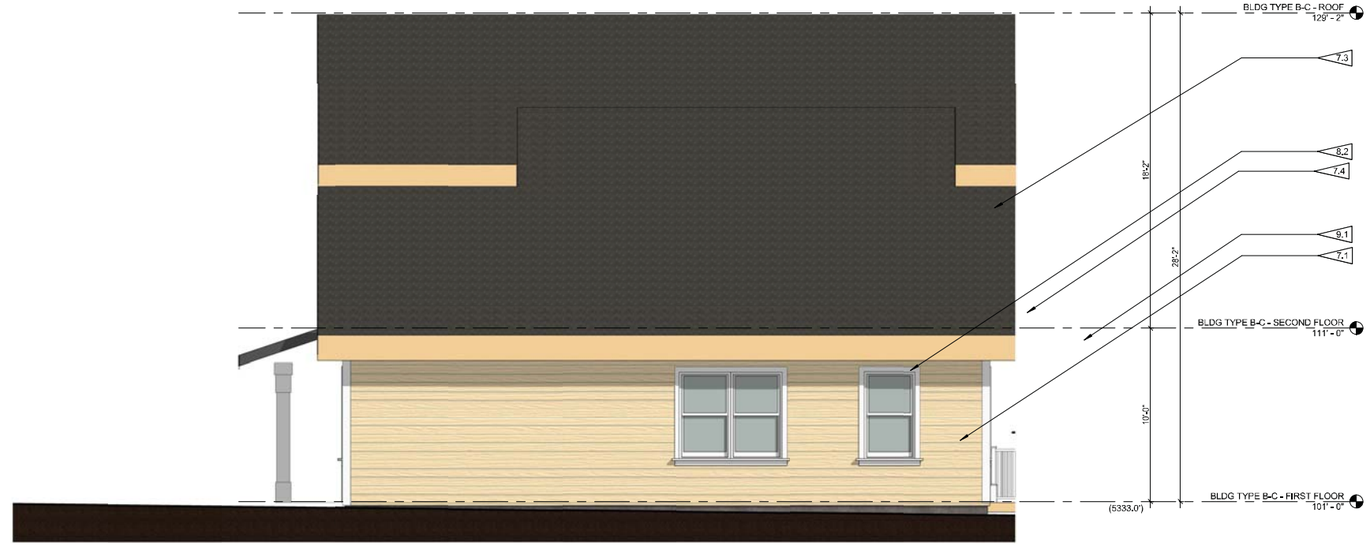
SITE REVIEW
04/04/2016

MATERIALS LIST	
Key Value	Keynote Text
7.1	LAP SIDING; COLORS TBD
7.2	SHAKE SIDING; COLORS TBD
7.3	ASPHALT ROOFING
7.4	METAL ROOFING
8.1	HM DOOR; COLOR TBD
8.2	VINYL WINDOW
9.1	FASCIA BOARD 12", W/ BOXED EAVE; COLOR TBD



2 NORTH ELEVATION - ROW HOMES
1/4" = 1'-0"



1 WEST ELEVATION - ROW HOMES
1/4" = 1'-0"

PALO PARK

ELEVATIONS - ROW HOMES (BLDGS B & C)

SR-A4.10

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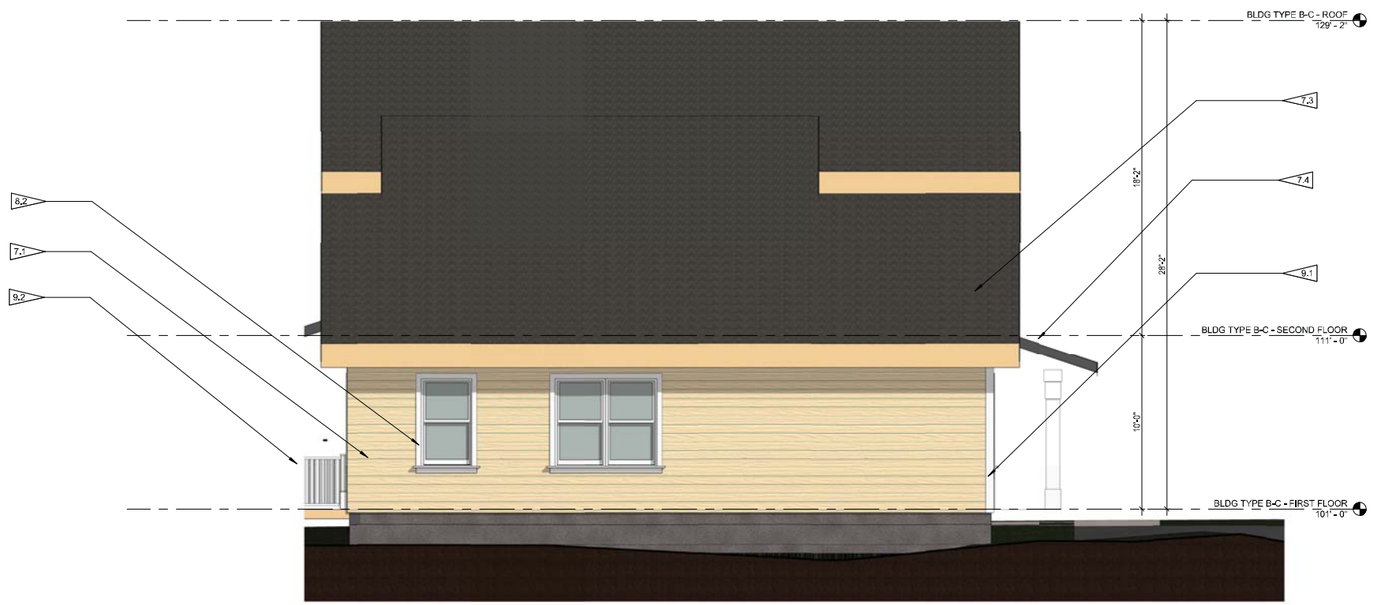
2 SOUTH ELEVATION - ROW HOMES
1/4" = 1'-0"

MATERIALS LIST	
Key Value	Keynote Text
7.1	LAP SIDING; COLORS TBD
7.2	SHAKE SIDING; COLORS TBD
7.3	ASPHALT ROOFING
7.4	METAL ROOFING
8.1	HM DOOR; COLOR TBD
8.2	VINYL WINDOW
8.3	DECORATIVE GABLE VENT; COLOR TBD
9.1	FASCIA BOARD 12", W/ BOXED EAVE; COLOR TBD
9.2	DECORATIVE RAILING; COLOR TBD
9.3	TRIM BOARD, 1X4



1 EAST ELEVATION - ROW HOMES
1/4" = 1'-0"

PALO PARK

ELEVATIONS - ROW HOMES (BLDGS B & C)

SR-A4.11

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4 PERSPECTIVE - BUILDING B/C - SOUTH WEST

3 PERSPECTIVE - BUILDING B/C - SOUTH EAST

2 PERSPECTIVE - BUILDING B/C - NORTH WEST

1 PERSPECTIVE - BUILDING B/C - NORTH EAST

PALO PARK

PERSPECTIVES - ROW HOMES (BLDGS B & C)

SR-A4.12

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SITE REVIEW
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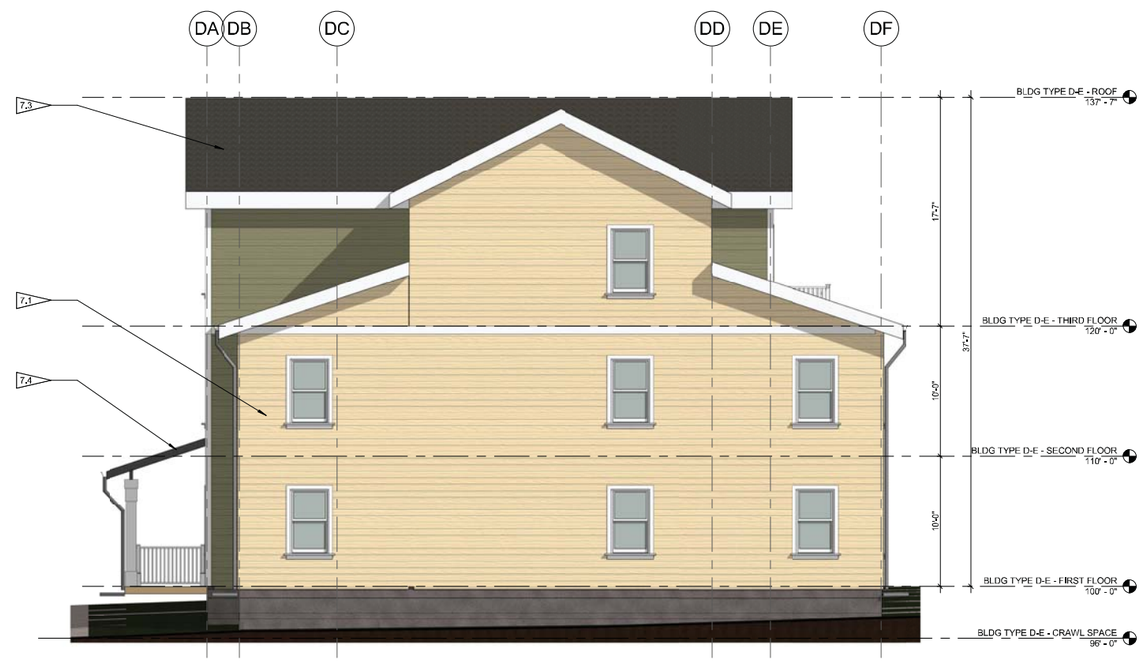
2 WEST ELEVATION - STACKED FLATS - SR
3/16" = 1'-0"

MATERIALS LIST	
Key Value	Keynote Text
7.1	LAP SIDING; COLORS TBD
7.2	SHAKE SIDING; COLORS TBD
7.3	ASPHALT ROOFING
7.4	METAL ROOFING
8.1	HM DOOR; COLOR TBD
8.2	VINYL WINDOW
9.1	FASCIA BOARD 12", W/ BOXED EAVE; COLOR TBD



1 NORTH ELEVATION - STACKED FLATS - SR
3/16" = 1'-0"

PALO PARK

ELEVATIONS - STACKED FLATS (BLDGS D & E)

SR-A4.20

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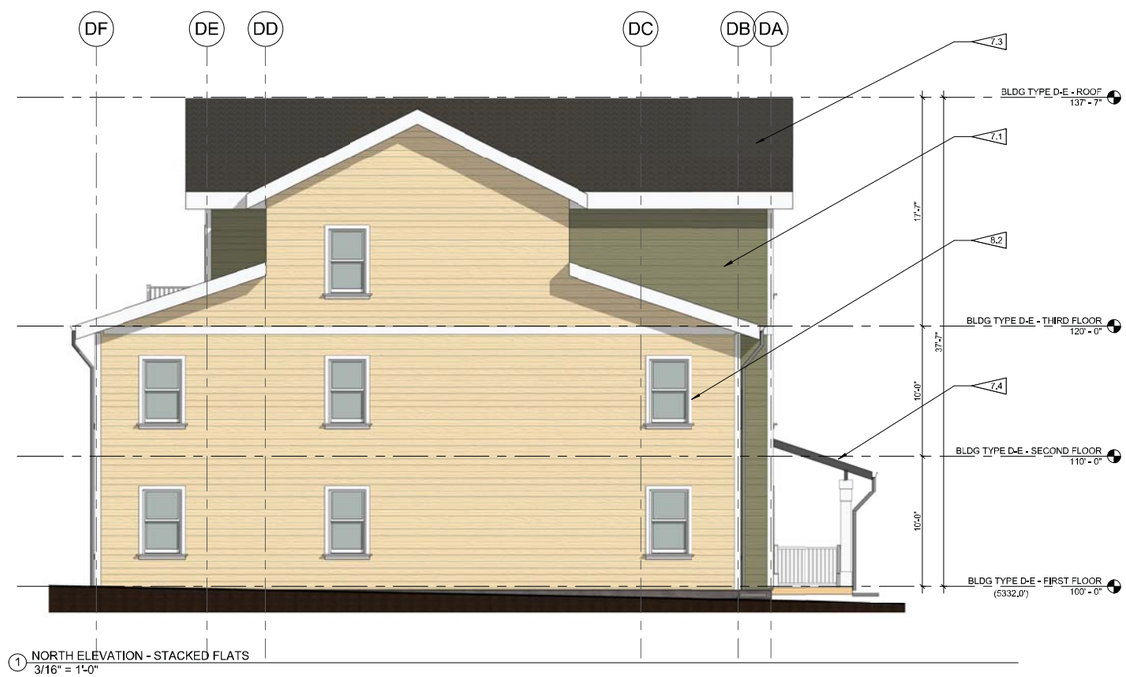
2 EAST ELEVATION - STACKED FLATS - SR
3/16" = 1'-0"

MATERIALS LIST	
Key Value	Keynote Text
7.1	LAP SIDING; COLORS TBD
7.2	SHAKE SIDING; COLORS TBD
7.3	ASPHALT ROOFING
7.4	METAL ROOFING
8.1	HM DOOR; COLOR TBD
8.2	VINYL WINDOW
9.1	FASCIA BOARD 12", W/ BOXED EAVE; COLOR TBD



1 NORTH ELEVATION - STACKED FLATS
3/16" = 1'-0"

PALO PARK

ELEVATIONS - STACKED FLATS (BLDGS D & E)

SR-A4.21

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4 PERSPECTIVE - BUILDING D/E - SOUTH WEST

3 PERSPECTIVE - BUILDING D/E - SOUTH EAST

2 PERSPECTIVE - BUILDING D/E - NORTH WEST

1 PERSPECTIVE - BUILDING D/E - NORTH EAST

PALO PARK

PERSPECTIVES - STACKED FLATS (BLDGS D & E)

SR-A4.22

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1 REAR ELEVATION
1/4" = 1'-0"

2 FRONT ELEVATION
1/4" = 1'-0"

PALO PARK TOWNHOMES

FRONT & REAR ELEVATIONS (COLOR)

SR-A4.30C

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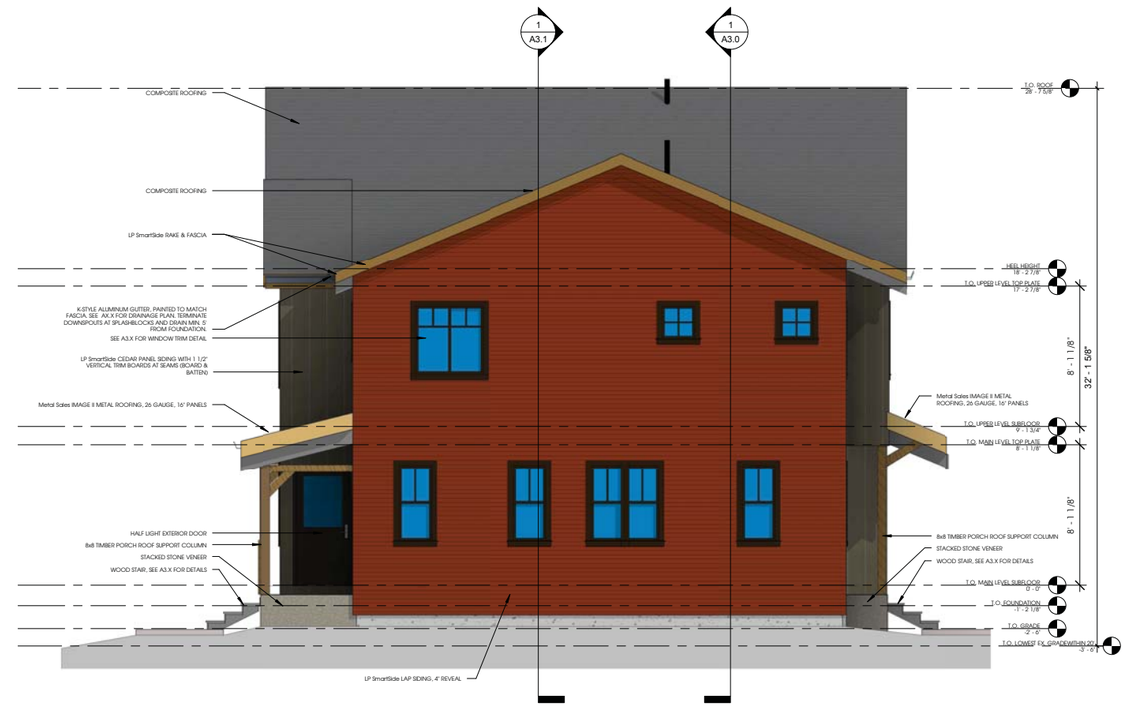
1 LEFT ELEVATION
1/4" = 1'-0"



2 LEFT ELEVATION
1/4" = 1'-0"

PALO PARK TOWNHOMES

SIDE ELEVATIONS (COLOR)

SR-A4.31C

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1 NORTHEAST PERSPECTIVE

3 SOUTHEAST PERSPECTIVE

2 NORTHWEST PERSPECTIVE

4 SOUTHWEST PERSPECTIVE

PALO PARK TOWNHOMES

EXTERIOR PERSPECTIVES

SR-A4.32

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KEYNOTES

Key Value	Keynote Text
4.1	SYNTHETIC STONE VENEER
5.1	CHAIN LINK FENCE ENCLOSURE
7.1	LAP SIDING; COLORS TBD
7.4	METAL ROOFING
8.1	HM DOOR; COLOR TBD
8.2	VINYL WINDOW
8.4	CHAIN LINK GATE
9.1	DECORATIVE TRIM; COLOR TBD
9.2	DECORATIVE RAILING; COLOR TBD

2 SOUTH ELEVATION - CC - SR
1/4" = 1'-0"

1 EAST ELEVATION - CC - SR
1/4" = 1'-0"

PALO PARK

ELEVATIONS - COMMUNITY CENTER

SR-A4.40

BOULDER HOUSING PARTNERS

4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302

15_005_00

SITE REVIEW
04/04/2016

KEYNOTE

Key Value	Keynote Text
4.1	SYNTHETIC STONE VENEER
5.1	CHAIN LINK FENCE ENCLOSURE
7.1	LAP SIDING; COLORS TBD
7.4	METAL ROOFING
8.1	HM DOOR; COLOR TBD
8.2	VINYL WINDOW
9.1	DECORATIVE TRIM; COLOR TBD
9.2	DECORATIVE RAILING; COLOR TBD

2 NORTH ELEVATION - CC - SR
1/4" = 1'-0"

1 WEST ELEVATION - CC - SR
1/4" = 1'-0"

PALO PARK

ELEVATIONS - COMMUNITY CENTER

SR-A4.41

BOULDER HOUSING PARTNERS

4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302
15_005_00

SITE REVIEW
04/04/2016

4 PERSPECTIVE - COMMUNITY CENTER - SOUTH WEST

3 PERSPECTIVE - COMMUNITY CENTER - SOUTH EAST

2 PERSPECTIVE - COMMUNITY CENTER - NORTH WEST

1 PERSPECTIVE - COMMUNITY CENTER - NORTH EAST

PALO PARK

PERSPECTIVES - COMMUNITY CENTER

SR-A4.42

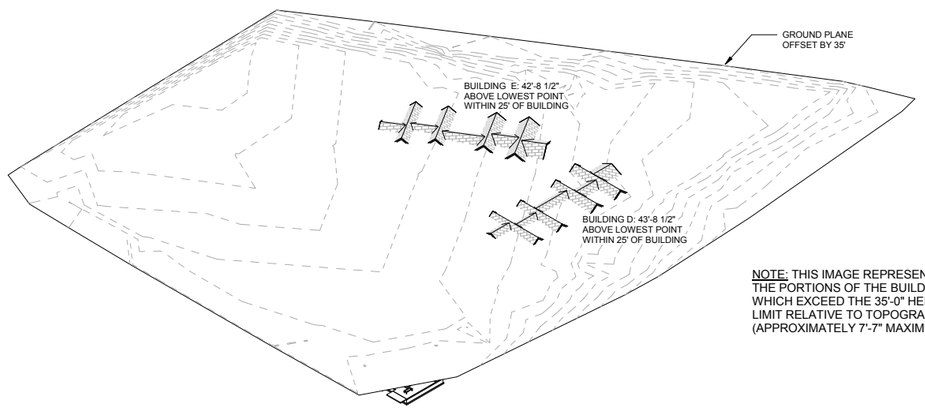
BOULDER HOUSING PARTNERS

4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302

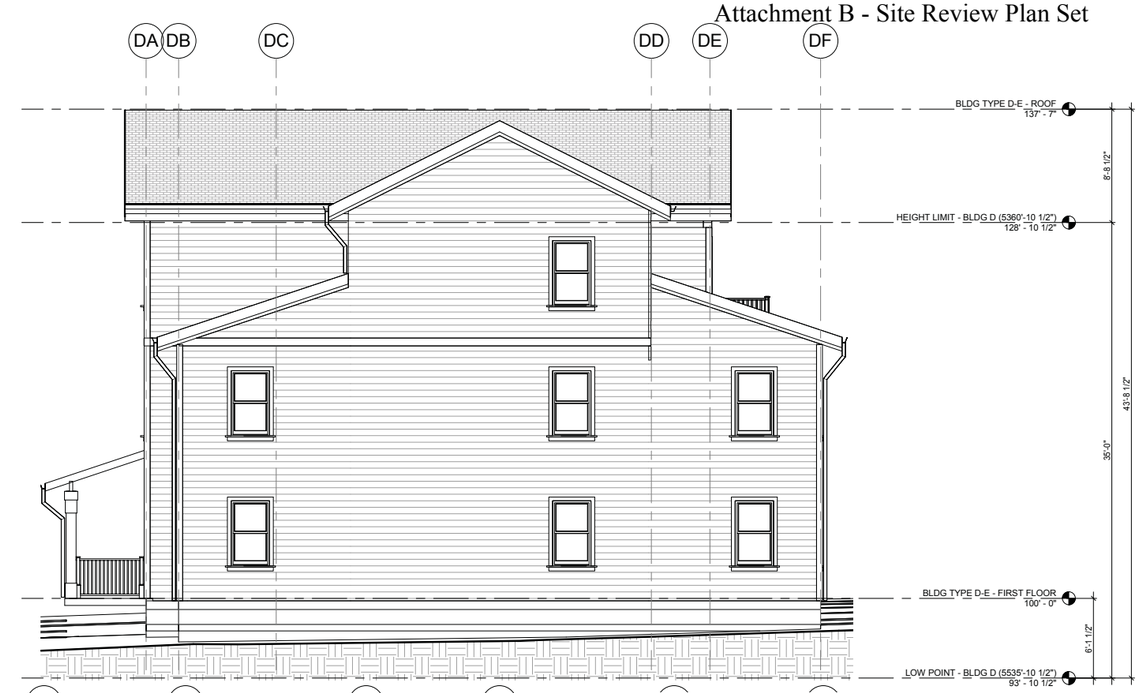
15_005_00

SITE REVIEW
04/04/2016



NOTE: THIS IMAGE REPRESENTS THE PORTIONS OF THE BUILDING WHICH EXCEED THE 35'-0" HEIGHT LIMIT RELATIVE TO TOPOGRAPHY (APPROXIMATELY 7'-7" MAXIMUM.)

1 HEIGHT LIMIT AXON DIAGRAM



3 NORTH ELEVATION - STACKED FLATS (BLDG D)
3/16" = 1'-0"

NEARBY BUILDING HEIGHTS	
BUILDING ADDRESS	ESTIMATED HEIGHT
3248 PALO PARKWAY	34'-6"
3254 PALO PARKWAY	35'-0"
3266 PALO PARKWAY	33'-6"
3274 PALO PARKWAY	30'-0"
3288 PALO PARKWAY	34'-9"
3292 PALO PARKWAY	34'-4"
3298 PALO PARKWAY	33'-3"
3786 RIDGEWAY STREET	30'-0"
3795 RIDGEWAY STREET	30'-0"
3812 HOWE COURT	25'-0"
3813 HOWE COURT	25'-0"
3830 HOWE COURT	25'-0"
3842 HOME COURT	25'-0"
3854 HOWE COURT	25'-0"

2 EAST ELEVATION - STACKED FLATS (BLDG D)
3/16" = 1'-0"

PALO PARK

ELEVATIONS - STACKED FLATS - HEIGHT MODIFICATION

SR-A4.23

BOULDER HOUSING PARTNERS

4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302
15_005_00

1 STREET VIEW FROM PALO PARKWAY LOOKING EAST
NTS

2 STREET VIEW FROM PALO PARKWAY LOOKING WEST
NTS

PALO PARK

STREET VIEW

SR-A4.43

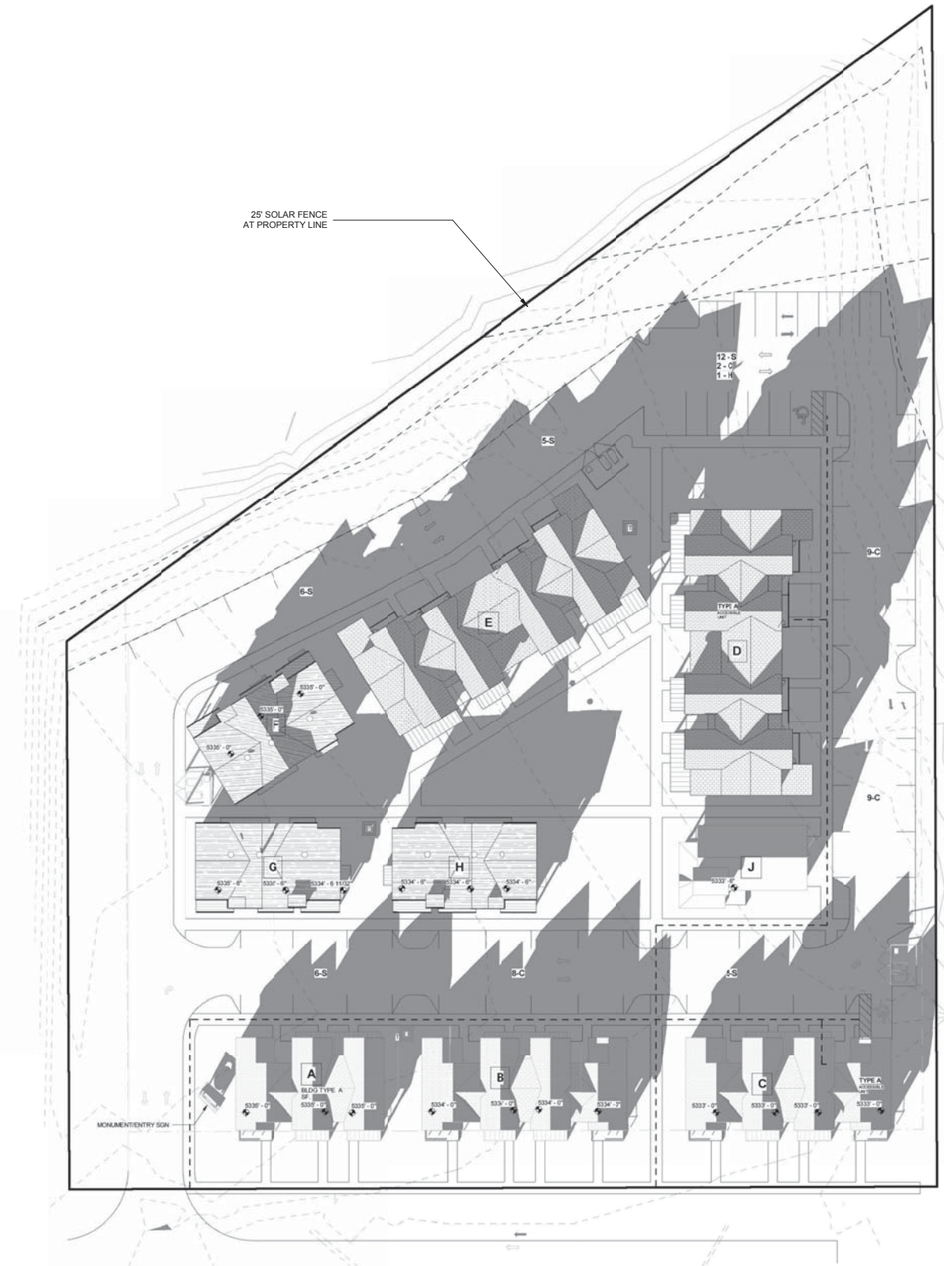
BOULDER HOUSING PARTNERS

4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302
15_005_00

1 SHADOW ANALYSIS - DEC 21 @ 10AM
1" = 30'-0"

NORTH



3 SHADOW ANALYSIS - DEC 21 @ 2PM
1" = 30'-0"

NORTH

PALO PARK

SOLAR ANALYSIS - 10AM & 2PM

SR-A10.00

BOULDER HOUSING PARTNERS

4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302
15_005_00

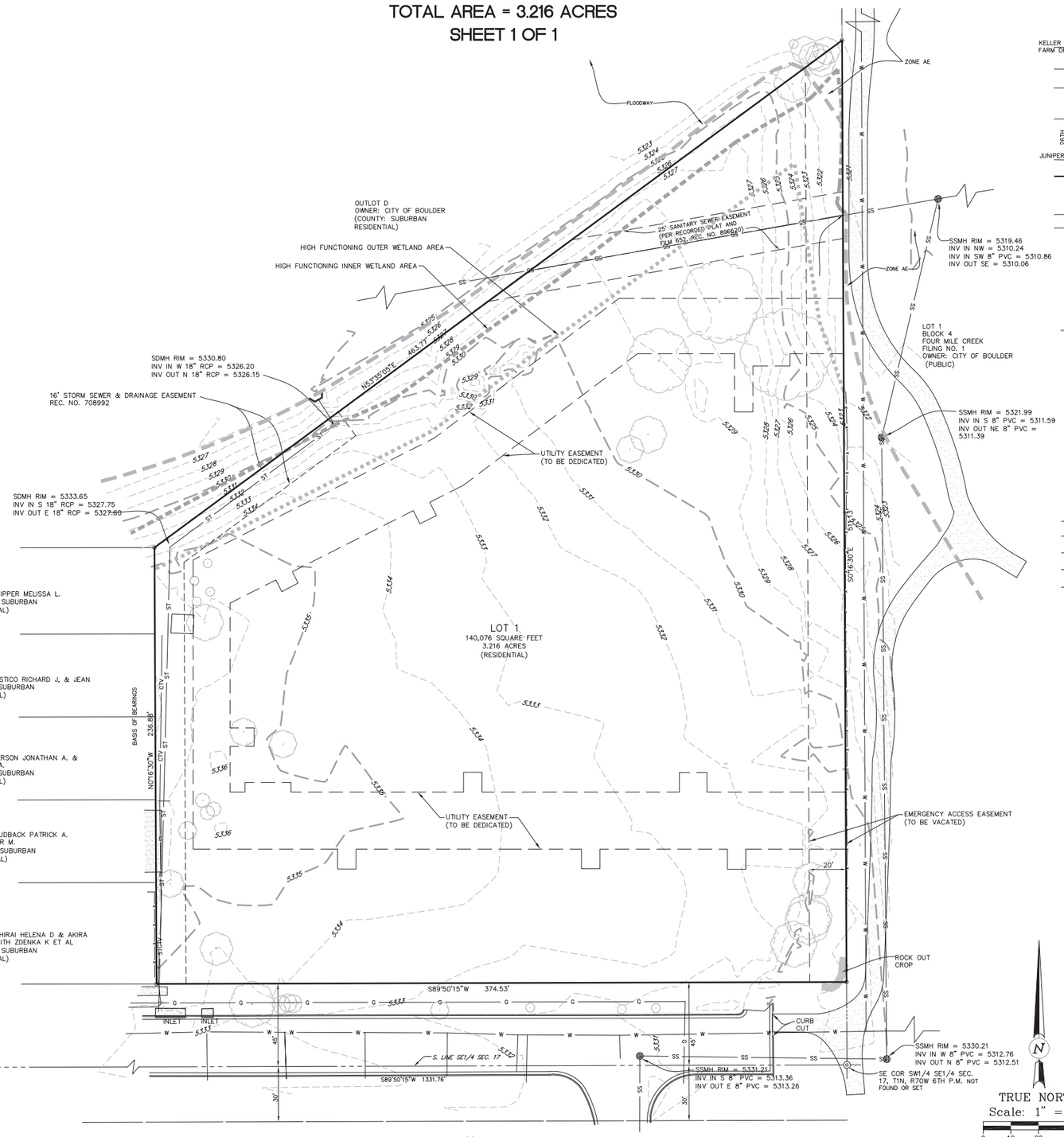
PALO PARK FILING NO. 4 REPLAT C PRELIMINARY PLAT

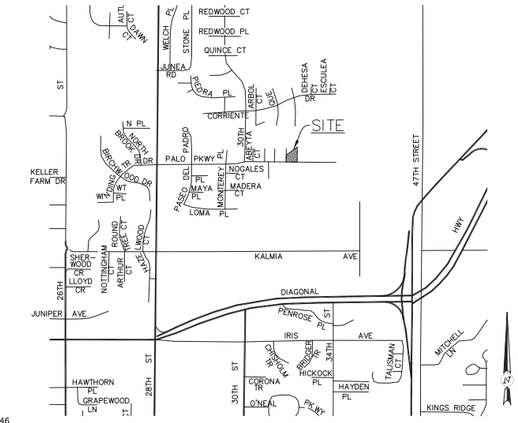
LOCATED IN THE SW 1/4 OF THE SE 1/4 OF SECTION 17, T1N, R70W OF THE 6TH P.M.

CITY OF BOULDER, COUNTY OF BOULDER, STATE OF COLORADO

TOTAL AREA = 3.216 ACRES

SHEET 1 OF 1





VICINITY MAP

1" = 1000'

LEGEND

5380	EXISTING CONTOUR
●	FOUND #5 REBAR WITH 1" RED PLASTIC CAP STAMPED SCOTT COX ASC PLS 24302 (UNLESS NOTED)
○	FOUND MONUMENT AS NOTED
	EXISTING ELECTRIC METER
	EXISTING WATER VALVE
	EXISTING GAS METER
	EXISTING WATER METER
△	CONTROL POINT
	EXISTING POWER POLE
	EXISTING FIRE HYDRANT
X X X	EXISTING FENCE
Po Po	EXISTING OVERHEAD POWER LINE
G G G	EXISTING GAS LINE
SS SS	EXISTING SANITARY SEWER W/MANHOLE
W W W	EXISTING WATER W/FIRE HYDRANT
(S54°08'29"W 0.08")	RECORD OR CALCULATED POSITION TO FOUND MONUMENT

UTILITY NOTES

1. ALL CITY UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF BOULDER DESIGN AND CONSTRUCTION STANDARDS.
2. WATER AND SEWER TAPS AND SERVICE LINE SIZES SHALL BE DETERMINED AT THE TIME OF BUILDING PERMIT APPLICATION.
3. ALL NEW WATER AND SANITARY SEWER SERVICE TAPS TO EXISTING MAINS SHALL BE MADE BY CITY CREWS AT THE DEVELOPER'S EXPENSE.
4. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE DONE IN A WAY SO AS TO MINIMIZE DISRUPTION IN SERVICE TO EXISTING USERS.
5. FINAL ENGINEERING PLANS ARE REQUIRED BY THE CITY OF BOULDER PRIOR TO ISSUANCE OF A BUILDING PERMIT.

LEGAL DESCRIPTION (PER TITLE COMMITMENT)

OUTLOT E
PALO PARK FILING NO. 4
COUNTY BOULDER
STATE OF COLORADO

SURVEY NOTES

1. BASIS OF BEARINGS: THE WESTERLY LINE OF THE SUBJECT PROPERTY, BEING MONUMENTED AS SHOWN HEREON, WITH THE LINE ASSUMED TO BEAR N00°16'30"W.
2. THE SIZE AND TYPE OF MONUMENTS FOUND ARE SHOWN HEREON.
3. THE SURVEY FIELD WORK ON THIS SITE WAS COMPLETED ON 03/24/15.
4. THE BENCHMARK UTILIZED FOR THIS SURVEY IS A CITY OF BOULDER BENCHMARK, ID NO. T-440-5-1-1-1, WITH AN ELEVATION OF 5333.92 NAVD88 DATUM.
5. NOTICE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED ON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON. CRS-13-80-105 (3)(a)
5. THE LOCATION OF THE ABOVE GROUND UTILITIES SHOWN HEREON ARE BASED ON THE TOPOGRAPHIC SURVEY BY DREXEL, BARREL AND COMPANY, DATED 03/24/15. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SAID SURVEY AND INFORMATION PROVIDED BY OTHERS (WHICH MAY INCLUDE THE UTILITY OWNER OR UTILITY LOCATING SERVICES). SCOTT, COX & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR UTILITY INFORMATION PROVIDED BY OTHERS. SCOTT, COX & ASSOCIATES, INC. RECOMMENDS THAT THE LOCATION OF THE UTILITIES BE FIELD VERIFIED PRIOR TO ANY DIGGING ON, OR ADJACENT TO THE SUBJECT PROPERTY.
6. HERITAGE TITLE COMPANY COMMITMENT NUMBER 451-H042662-036-JY7, DATED MARCH 4, 2015 AT 5:00 P.M., WAS ENTIRELY RELIED UPON FOR RECORDED INFORMATION REGARDING RIGHTS-OF-WAY, EASEMENTS AND ENCUMBRANCES IN THE PREPARATION OF THIS SURVEY. THE PROPERTY SHOWN AND DESCRIBED HEREON IS ALL OF THE PROPERTY DESCRIBED IN SAID TITLE COMMITMENT.
7. PLATS REFERENCED OR USED FOR THIS SURVEY: PALO PARK FILING NO. 4, DATED 04-11-1984;
8. LOT IS TO BE USED FOR MULTI FAMILY RESIDENCES.
9. THE PROPERTY IS ZONED RMX-2.
10. THE FEMA FLOOD INSURANCE RATE MAP, PANEL 08013C0392J AND PANEL 08013C0411J, DATED DECEMBER 18, 2012, INDICATES THAT PORTIONS OF THE SITE ARE LOCATED WITHIN ZONE AE, AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD.

SURVEYOR'S CERTIFICATE

I, A. JOHN BURI, A DULY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY SUPERVISION AND IS BASED ON A BOUNDARY SURVEY MADE BY SCOTT, COX & ASSOCIATES, INC., AND TO THE BEST OF MY KNOWLEDGE AND BELIEF CORRECTLY SHOWS THE LOCATION AND DIMENSIONS OF THE LOTS, IN SUBSTANTIAL COMPLIANCE WITH C.R.S. 38-51-106.

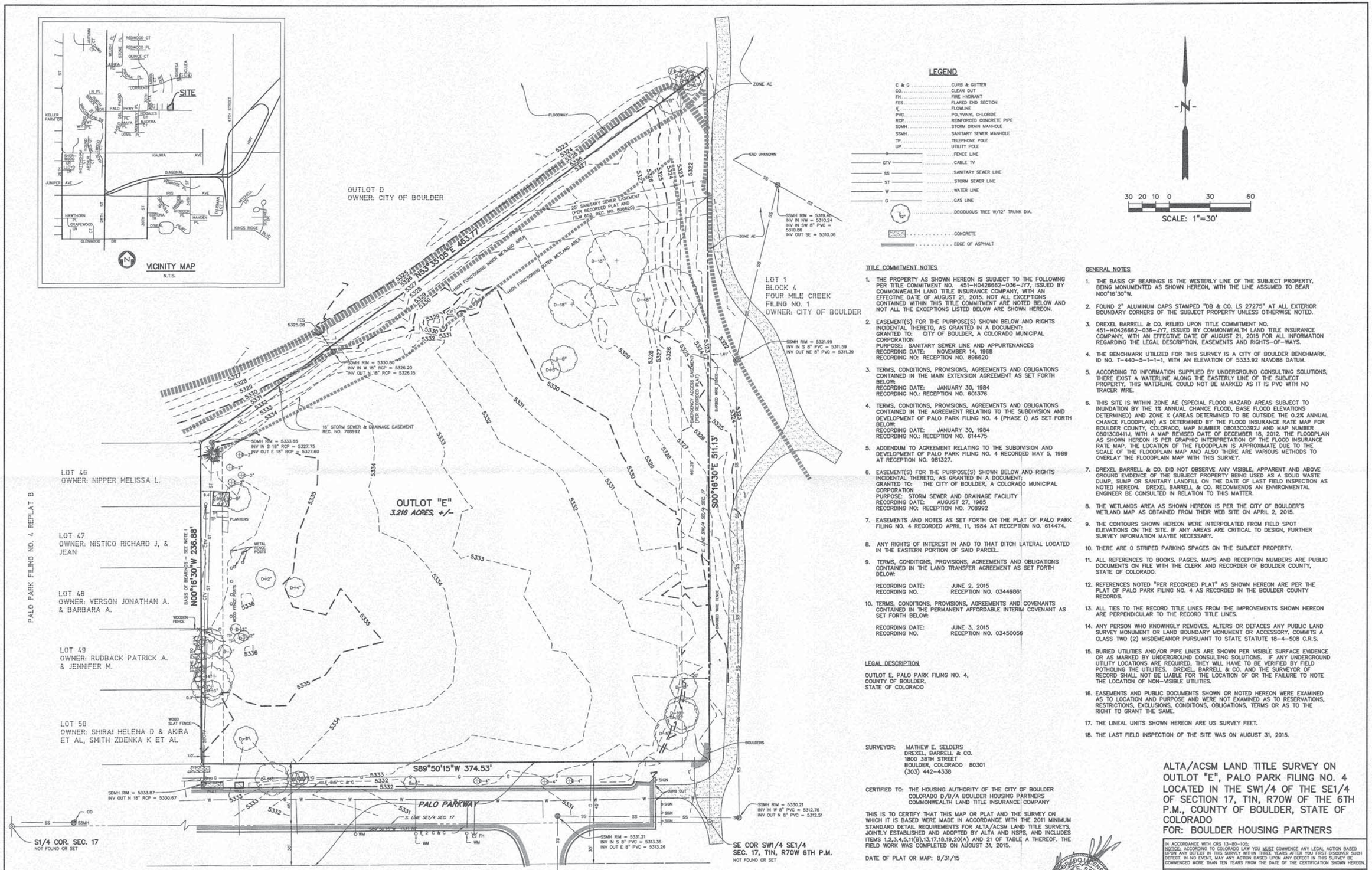
A. JOHN BURI, PLS 24302
FOR AND ON BEHALF OF
SCOTT, COX & ASSOCIATES, INC.

APPROVED BY THE CITY OF BOULDER

DIRECTOR OF PLANNING _____ DATE _____

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 - 3051

Designed by	AJB	Date	Scale	Drawing no.	Sheet
Drawn by	JAS	05/05/16	1"=30'	15257D-1	1
Checked by	AJB	Revision	Description	Date	Project no. 15257D



LEGEND

C & G	CURB & GUTTER
CO	CLEAN OUT
FH	FIRE HYDRANT
FES	FLARED END SECTION
℄	FLOWLINE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
SDMH	STORM DRAIN MANHOLE
SSMH	SANITARY SEWER MANHOLE
TP	TELEPHONE POLE
UP	UTILITY POLE
—X—	FENCE LINE
—CTV—	CABLE TV
—SS—	SANITARY SEWER LINE
—ST—	STORM SEWER LINE
—W—	WATER LINE
—G—	GAS LINE
D=2"	DECIDUOUS TREE W/12" TRUNK DIA.
CONCRETE	CONCRETE
	EDGE OF ASPHALT

30 20 10 0 30 60

SCALE: 1"=30'

TITLE COMMITMENT NOTES

1. THE PROPERTY AS SHOWN HEREON IS SUBJECT TO THE FOLLOWING PER TITLE COMMITMENT NO. 451-H0426662-036-JY7, ISSUED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY, WITH AN EFFECTIVE DATE OF AUGUST 21, 2015. NOT ALL EXCEPTIONS CONTAINED WITHIN THIS TITLE COMMITMENT ARE NOTED BELOW AND NOT ALL THE EXCEPTIONS LISTED BELOW ARE SHOWN HEREON.
2. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
   GRANTED TO: CITY OF BOULDER, A COLORADO MUNICIPAL CORPORATION
   PURPOSE: SANITARY SEWER LINE AND APPURTENANCES
   RECORDING DATE: NOVEMBER 14, 1968
   RECORDING NO: RECEPTION NO. 896620
3. TERMS, CONDITIONS, PROVISIONS, AGREEMENTS AND OBLIGATIONS CONTAINED IN THE MAIN EXTENSION AGREEMENT AS SET FORTH BELOW:
   RECORDING DATE: JANUARY 30, 1984
   RECORDING NO.: RECEPTION NO. 601376
4. TERMS, CONDITIONS, PROVISIONS, AGREEMENTS AND OBLIGATIONS CONTAINED IN THE AGREEMENT RELATING TO THE SUBDIVISION AND DEVELOPMENT OF PALO PARK FILING NO. 4 (PHASE I) AS SET FORTH BELOW:
   RECORDING DATE: JANUARY 30, 1984
   RECORDING NO.: RECEPTION NO. 614475
5. ADDENDUM TO AGREEMENT RELATING TO THE SUBDIVISION AND DEVELOPMENT OF PALO PARK FILING NO. 4 RECORDED MAY 5, 1989 AT RECEPTION NO. 981327.
6. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
   GRANTED TO: THE CITY OF BOULDER, A COLORADO MUNICIPAL CORPORATION
   PURPOSE: STORM SEWER AND DRAINAGE FACILITY
   RECORDING DATE: AUGUST 27, 1985
   RECORDING NO: RECEPTION NO. 708992
7. EASEMENTS AND NOTES AS SET FORTH ON THE PLAT OF PALO PARK FILING NO. 4 RECORDED APRIL 11, 1984 AT RECEPTION NO. 614474.
8. ANY RIGHTS OF INTEREST IN AND TO THAT DITCH LATERAL LOCATED IN THE EASTERN PORTION OF SAID PARCEL.
9. TERMS, CONDITIONS, PROVISIONS, AGREEMENTS AND OBLIGATIONS CONTAINED IN THE LAND TRANSFER AGREEMENT AS SET FORTH BELOW:
   RECORDING DATE: JUNE 2, 2015
   RECORDING NO. RECEPTION NO. 03449861
10. TERMS, CONDITIONS, PROVISIONS, AGREEMENTS AND COVENANTS CONTAINED IN THE PERMANENT AFFORDABLE INTERIM COVENANT AS SET FORTH BELOW:
    RECORDING DATE: JUNE 3, 2015
    RECORDING NO. RECEPTION NO. 03450056

LEGAL DESCRIPTION

OUTLOT E, PALO PARK FILING NO. 4,
COUNTY OF BOULDER,
STATE OF COLORADO

SURVEYOR: MATHEW E. SELDERS
DREXEL, BARRELL & CO.
1800 38TH STREET
BOULDER, COLORADO 80301
(303) 442-4338

CERTIFIED TO: THE HOUSING AUTHORITY OF THE CITY OF BOULDER
COLORADO D/B/A BOULDER HOUSING PARTNERS
COMMONWEALTH LAND TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1,2,3,4,5,11(B),13,17,18,19,20(A) AND 21 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON AUGUST 31, 2015.

DATE OF PLAT OR MAP: 8/31/15

COLORADO LICENSED PROFESSIONAL LAND SURVEYOR MATHEW E. SELDERS 27275 8-31-15

MATHEW E. SELDERS
COLORADO LICENSED PROFESSIONAL
LAND SURVEYOR NO. 27275

GENERAL NOTES

1. THE BASIS OF BEARINGS IS THE WESTERLY LINE OF THE SUBJECT PROPERTY, BEING MONUMENTED AS SHOWN HEREON, WITH THE LINE ASSUMED TO BEAR N00°16'30"W.
2. FOUND 2" ALUMINUM CAPS STAMPED "DB & CO. LS 27275" AT ALL EXTERIOR BOUNDARY CORNERS OF THE SUBJECT PROPERTY UNLESS OTHERWISE NOTED.
3. DREXEL BARRELL & CO. RELIED UPON TITLE COMMITMENT NO. 451-H0426662-036-JY7, ISSUED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY, WITH AN EFFECTIVE DATE OF AUGUST 21, 2015 FOR ALL INFORMATION REGARDING THE LEGAL DESCRIPTION, EASEMENTS AND RIGHTS-OF-WAYS.
4. THE BENCHMARK UTILIZED FOR THIS SURVEY IS A CITY OF BOULDER BENCHMARK, ID NO. T-440-5-1-1-1, WITH AN ELEVATION OF 5333.92 NAVD88 DATUM.
5. ACCORDING TO INFORMATION SUPPLIED BY UNDERGROUND CONSULTING SOLUTIONS, THERE EXIST A WATERLINE ALONG THE EASTERLY LINE OF THE SUBJECT PROPERTY, THIS WATERLINE COULD NOT BE MARKED AS IT IS PVC WITH NO TRACER WIRE.
6. THIS SITE IS WITHIN ZONE AE (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, BASE FLOOD ELEVATIONS DETERMINED) AND ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DETERMINED BY THE FLOOD INSURANCE RATE MAP FOR BOULDER COUNTY, COLORADO, MAP NUMBER 08013C0392J AND MAP NUMBER 08013C0411J, WITH A MAP REVISED DATE OF DECEMBER 18, 2012. THE FLOODPLAIN AS SHOWN HEREON IS PER GRAPHIC INTERPRETATION OF THE FLOOD INSURANCE RATE MAP. THE LOCATION OF THE FLOODPLAIN IS APPROXIMATE DUE TO THE SCALE OF THE FLOODPLAIN MAP AND ALSO THERE ARE VARIOUS METHODS TO OVERLAY THE FLOODPLAIN MAP WITH THIS SURVEY.
7. DREXEL BARRELL & CO. DID NOT OBSERVE ANY VISIBLE, APPARENT AND ABOVE GROUND EVIDENCE OF THE SUBJECT PROPERTY BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL ON THE DATE OF LAST FIELD INSPECTION AS NOTED HEREON. DREXEL BARRELL & CO. RECOMMENDS AN ENVIRONMENTAL ENGINEER BE CONSULTED IN RELATION TO THIS MATTER.
8. THE WETLANDS AREA AS SHOWN HEREON IS PER THE CITY OF BOULDER'S WETLAND MAP AS OBTAINED FROM THEIR WEB SITE ON APRIL 2, 2015.
9. THE CONTOURS SHOWN HEREON WERE INTERPOLATED FROM FIELD SPOT ELEVATIONS ON THE SITE. IF ANY AREAS ARE CRITICAL TO DESIGN, FURTHER SURVEY INFORMATION MAYBE NECESSARY.
10. THERE ARE 0 STRIPED PARKING SPACES ON THE SUBJECT PROPERTY.
11. ALL REFERENCES TO BOOKS, PAGES, MAPS AND RECEPTION NUMBERS ARE PUBLIC DOCUMENTS ON FILE WITH THE CLERK AND RECORDER OF BOULDER COUNTY, STATE OF COLORADO.
12. REFERENCES NOTED "PER RECORDED PLAT" AS SHOWN HEREON ARE PER THE PLAT OF PALO PARK FILING NO. 4 AS RECORDED IN THE BOULDER COUNTY RECORDS.
13. ALL TIES TO THE RECORD TITLE LINES FROM THE IMPROVEMENTS SHOWN HEREON ARE PERPENDICULAR TO THE RECORD TITLE LINES.
14. ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY, COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18-4-508 C.R.S.
15. BURIED UTILITIES AND/OR PIPE LINES ARE SHOWN PER VISIBLE SURFACE EVIDENCE OR AS MARKED BY UNDERGROUND CONSULTING SOLUTIONS. IF ANY UNDERGROUND UTILITY LOCATIONS ARE REQUIRED, THEY WILL HAVE TO BE VERIFIED BY FIELD POTHOLING THE UTILITIES. DREXEL, BARRELL & CO. AND THE SURVEYOR OF RECORD SHALL NOT BE LIABLE FOR THE LOCATION OF OR THE FAILURE TO NOTE THE LOCATION OF NON-VISIBLE UTILITIES.
16. EASEMENTS AND PUBLIC DOCUMENTS SHOWN OR NOTED HEREON WERE EXAMINED AS TO LOCATION AND PURPOSE AND WERE NOT EXAMINED AS TO RESERVATIONS, RESTRICTIONS, EXCLUSIONS, CONDITIONS, OBLIGATIONS, TERMS OR AS TO THE RIGHT TO GRANT THE SAME.
17. THE LINEAL UNITS SHOWN HEREON ARE US SURVEY FEET.
18. THE LAST FIELD INSPECTION OF THE SITE WAS ON AUGUST 31, 2015.

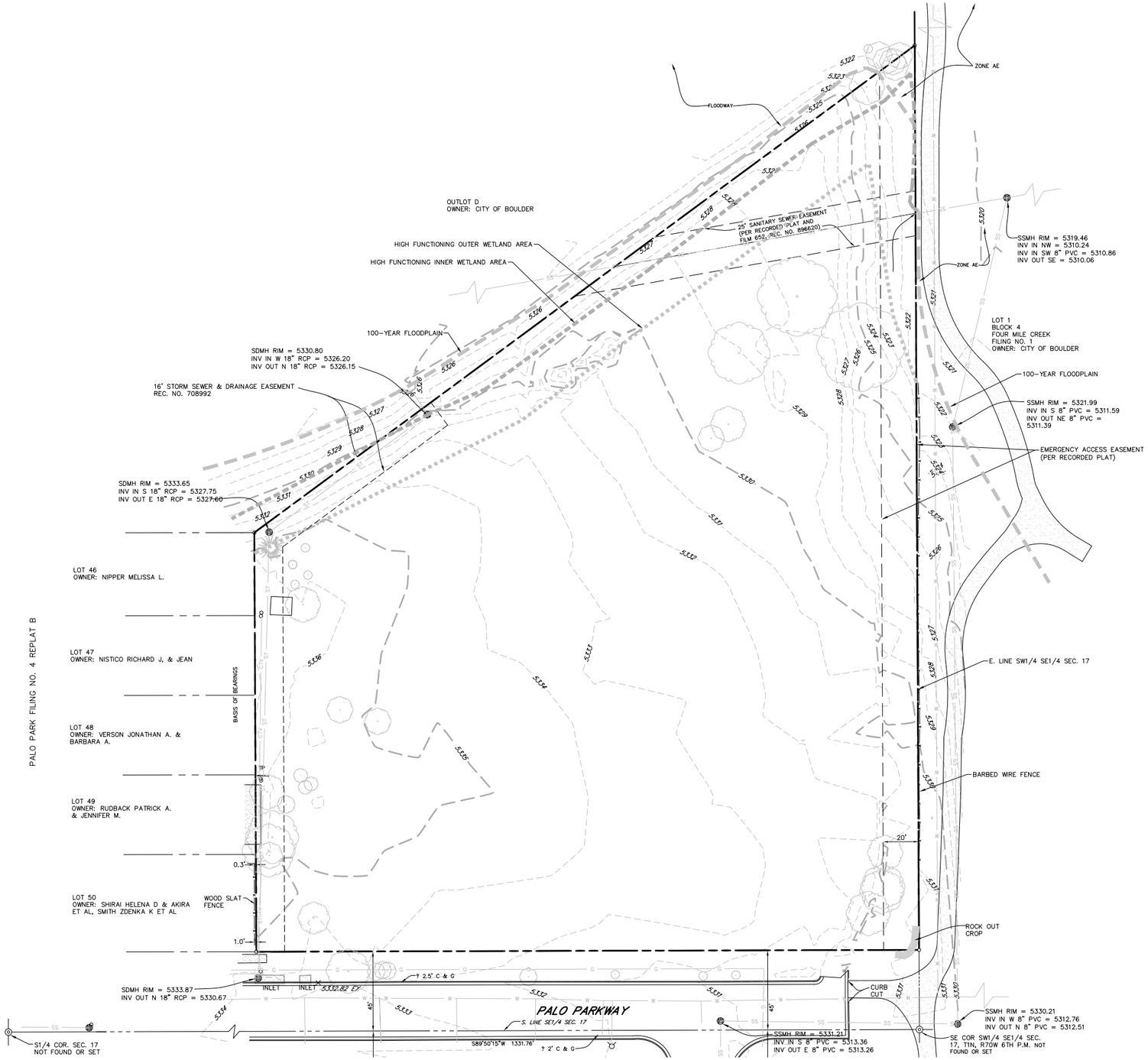
ALTA/ACSM LAND TITLE SURVEY ON OUTLOT "E", PALO PARK FILING NO. 4 LOCATED IN THE SW1/4 OF THE SE1/4 OF SECTION 17, T1N, R70W OF THE 6TH P.M., COUNTY OF BOULDER, STATE OF COLORADO

FOR: BOULDER HOUSING PARTNERS

IN ACCORDANCE WITH CRS 13-80-105:
NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

Drexel, Barrell & Co. Engineers/Surveyors
1800 38TH STREET BOULDER, COLORADO 80301 (303) 442-4338
COLORADO SPRINGS, COLORADO (719) 260-0887
GREELEY, COLORADO (970) 351-0645
STEAMBOAT SPRINGS, COLORADO (970) 879-1523
GRAND JUNCTION, COLORADO (970) 257-1350

Revisions - Date	Date	Drawn By	Job No.
8/31/15	3/24/15	JRF	5809-3
	Scale 1"=30'	Checked By MES	Drawing No. B87-81



LEGEND

- EXISTING TREE
- EXISTING CONTOUR
- EXISTING SWALE
- EXISTING TELEPHONE PEDESTAL
- EXISTING CABLE T.V. PEDESTAL
- CONTROL POINT
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING FIRE HYDRANT
- EXISTING SPRINKLER VALVE BOX
- EXISTING FENCE
- EXISTING UNDERGROUND TELEPHONE
- EXISTING OVERHEAD TELEPHONE
- EXISTING UNDERGROUND POWER LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER W/MANHOLE
- EXISTING WATER W/FIRE HYDRANT
- EXISTING STORM SEWER W/MANHOLE

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 - 3051
DWG NO. 15257B-2

PALO PARK

Existing Conditions Plan

SR-C1.00

BOULDER HOUSING PARTNERS

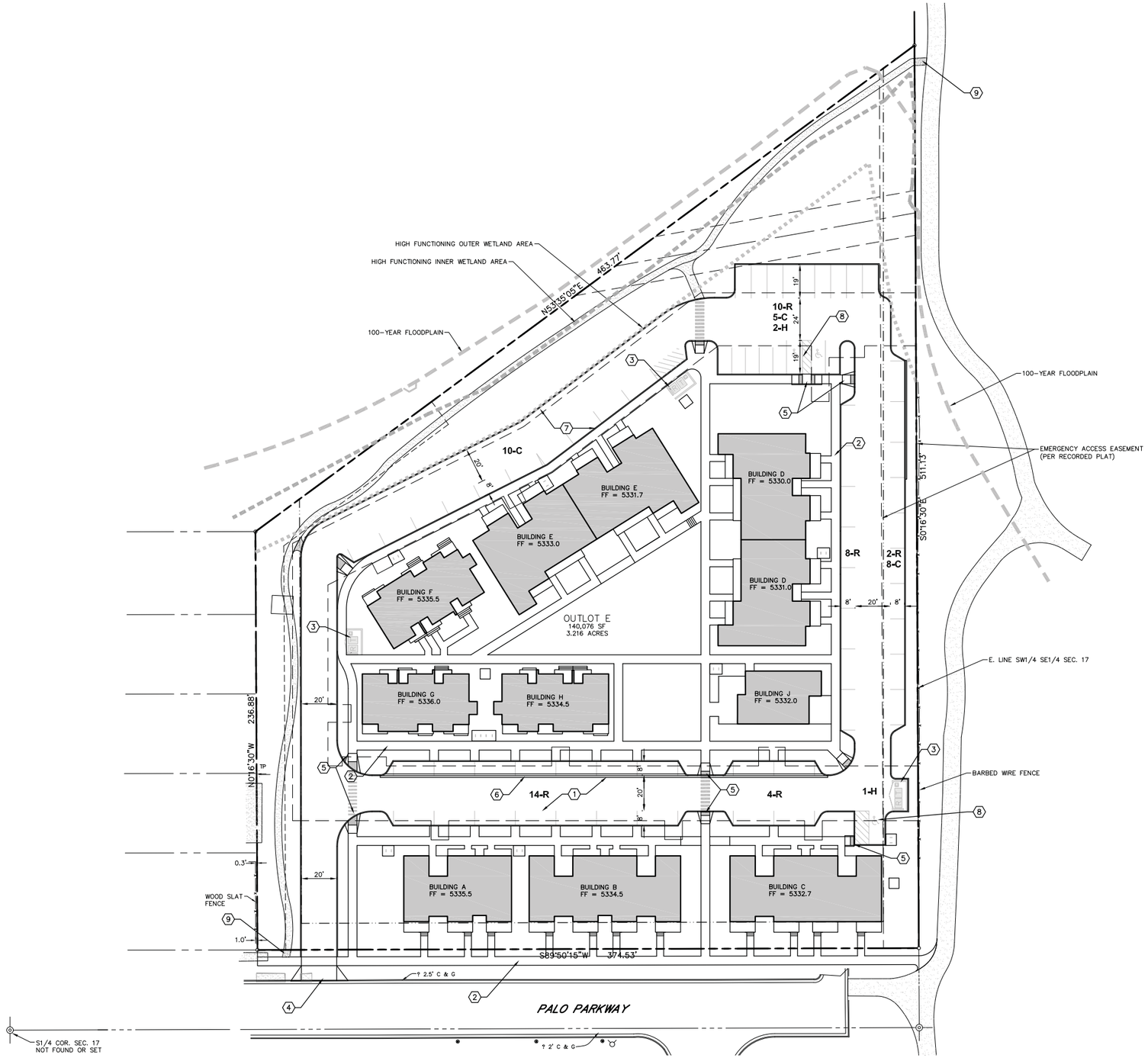
4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302

15_005_00

4525 Palo Parkway, Boulder, CO 80303

SITE REVIEW
Call Up
05/05/2016
4525 Palo Parkway



LEGEND

EXISTING DECIDUOUS TREE

EXISTING PINE TREE

5305 EXISTING CONTOUR

PARKING TABLE	
NUMBER OF UNITS	44
REGULAR SPACES	41
COMPACT SPACES	23
COMPACT RATIO	36%
TOTAL SPACES	64

KEYED NOTES (1)

1. TWO-WAY TRAFFIC AISLE.
2. PROPOSED 5' CONCRETE SIDEWALK.
3. TRASH ENCLOSURE.
4. STANDARD CITY OF BOULDER DRIVEWAY RAMP WITH DETACHED WALK.
5. STANDARD CDOT CURB RAMP.
6. PROPOSED 2' CONCRETE DRAIN PAN.
7. PROPOSED CURB AND GUTTER.
8. ACCESSIBLE PARKING SPACE WITH STANDARD CITY OF BOULDER ADA SIGN.
9. PAVE WITH CONCRETE BETWEEN EXISTING WALK AND PROPERTY LINE.

N

Scale: 1" = 30'

0 15 30 60

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 – 3051
DWG NO. 15257B-2

PALO PARK

Civil Site Plan

SR-C1.01

BOULDER HOUSING PARTNERS

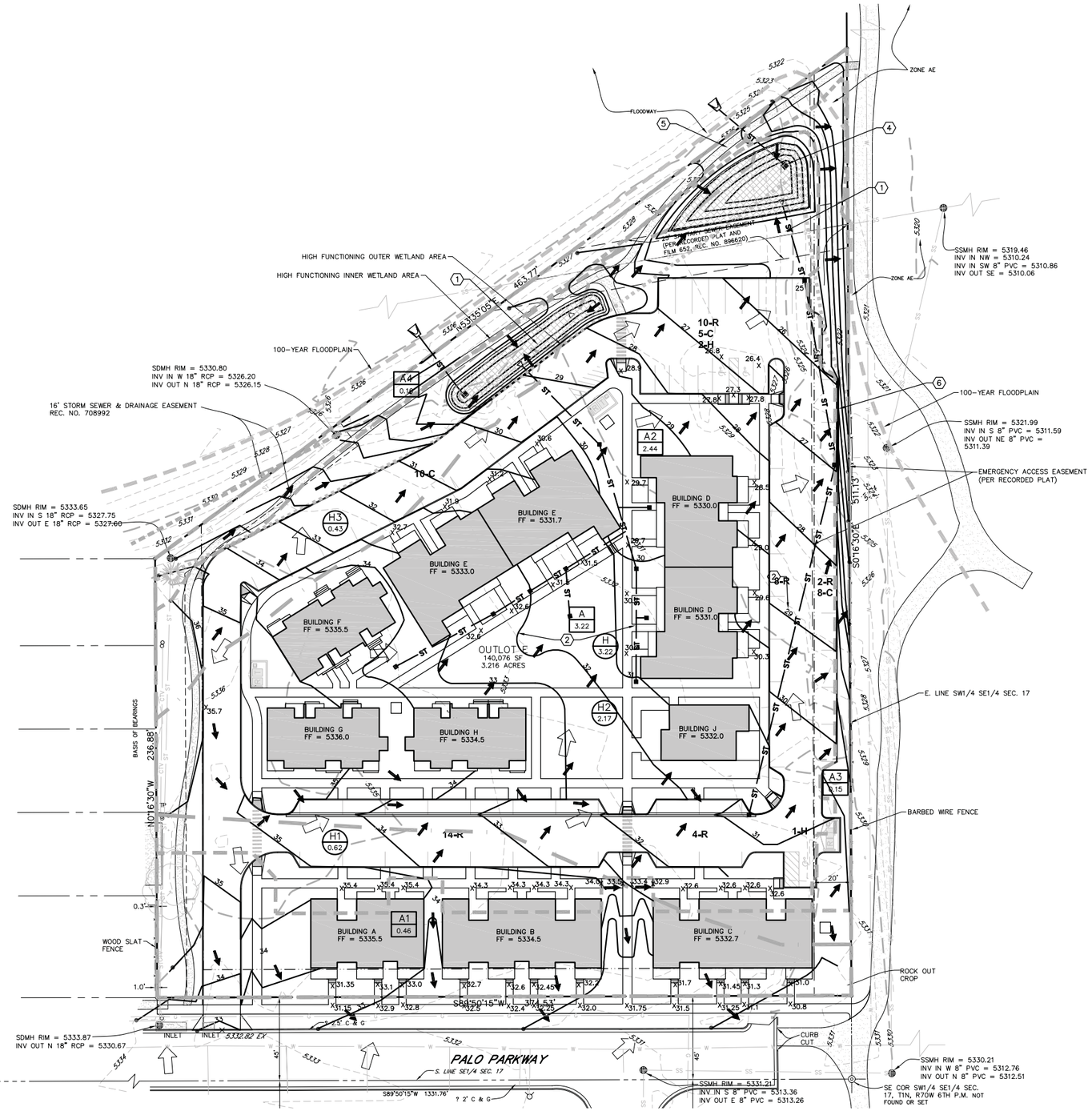
4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302

15_005_00

4525 Palo Parkway, Boulder, CO 80303

SITE REVIEW
05/05/2016



LEGEND

- EXISTING DECIDUOUS TREE
- EXISTING PINE TREE
- 5305 — EXISTING CONTOUR
- 5 — PROPOSED CONTOUR ADD 5300 TO ALL CONTOURS
- POINT WHERE PROPOSED GRADE MEETS EXISTING GRADE
- X 25.8 — PROPOSED SPOT ELEVATION ADD 5200 TO ALL SPOT ELEVATIONS
- X 25.8 — EXISTING SPOT ELEVATION
- HISTORIC SHEET FLOW
- PROPOSED FLOW DIRECTION
- DRAINAGE BASIN BOUNDARY (HISTORIC)
- PROPOSED BASIN BOUNDARY
- H / 1 — SUB-BASIN DESIGNATION (HISTORIC) / AREA IN ACRES
- A / 1 — PROPOSED SUB-BASIN DESIGNATION / AREA IN ACRES
- PROPOSED WATER QUALITY FEATURE
- ST — ST — PROPOSED STORM SEWER WITH INLET

KEYED NOTES (1)

1. PROPOSED WATER QUALITY POND.
2. PROPOSED STORM SEWER.
3. PROPOSED BIO SWALE.
4. PROPOSED OUTLET STRUCTURE.
5. PROPOSED EMERGENCY OVERFLOW WEIR.
6. PROPOSED RETAINING WALL. MAXIMUM WALL HEIGHT OF 30"

GRADING NOTES

1. GRADE AWAY FROM BUILDINGS AT A MINIMUM 10% SLOPE IN THE FIRST 10 FEET AT LANDSCAPE AREAS AND AT A MINIMUM 2% SLOPE IN THE FIRST 10 FEET AT IMPERVIOUS AREAS, EXCEPT AS NOTED.
2. TOP OF FOUNDATION ELEVATION SHALL BE SET AT LEAST 8" ABOVE THE PROPOSED GRADING AT THE EXTERIOR OF THE FOUNDATION AT LANDSCAPE AREAS.
3. THE FEMA FLOOD INSURANCE RATE MAP, PANEL 08013C0392J AND PANEL 08013C0411J, DATED DECEMBER 18, 2012, INDICATES THAT PORTIONS OF THE SITE ARE LOCATED WITHIN ZONE AE, AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD.
4. ALL CITY UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF BOULDER STANDARD SPECIFICATIONS.
5. THE LOCATION OF THE ABOVE GROUND UTILITIES SHOWN HEREON ARE BASED ON THE TOPOGRAPHIC SURVEY BY DREXEL, BARREL AND COMPANY, DATED 03/24/15. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SAID SURVEY AND INFORMATION PROVIDED BY OTHERS (WHICH MAY INCLUDE THE UTILITY OWNER OR UTILITY LOCATING SERVICES). SCOTT, COX & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR UTILITY INFORMATION PROVIDED BY OTHERS. SCOTT, COX & ASSOCIATES, INC. RECOMMENDS THAT THE LOCATION OF THE UTILITIES BE FIELD VERIFIED PRIOR TO ANY DIGGING ON, OR ADJACENT TO THE SUBJECT PROPERTY.
6. BENCH MARK ELEVATION TAKEN FROM CITY OF BOULDER BENCHMARK, ID NO. T-440-5-1-1-1, PER DREXEL BARRELL DRAWING B87-81, DATED 3/24/15. ELEVATION = 5333.92 NAVD88 DATUM.
7. A FINAL STORM WATER PLAN AND REPORT IS REQUIRED BY THE CITY OF BOULDER PRIOR TO ISSUANCE OF A BUILDING PERMIT.
8. IF REQUIRED, ALL APPLICABLE CITY AND/OR STATE PERMITS PERTAINING TO THE DISCHARGE OF GROUNDWATER MUST BE OBTAINED PRIOR TO PREPARATION OF BUILDING PERMIT PLANS.

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 – 3051
DWG NO. 15257B-2

PALO PARK

Preliminary Grading, Drainage, and Erosion Control Plan

SR-C1.02

BOULDER HOUSING PARTNERS

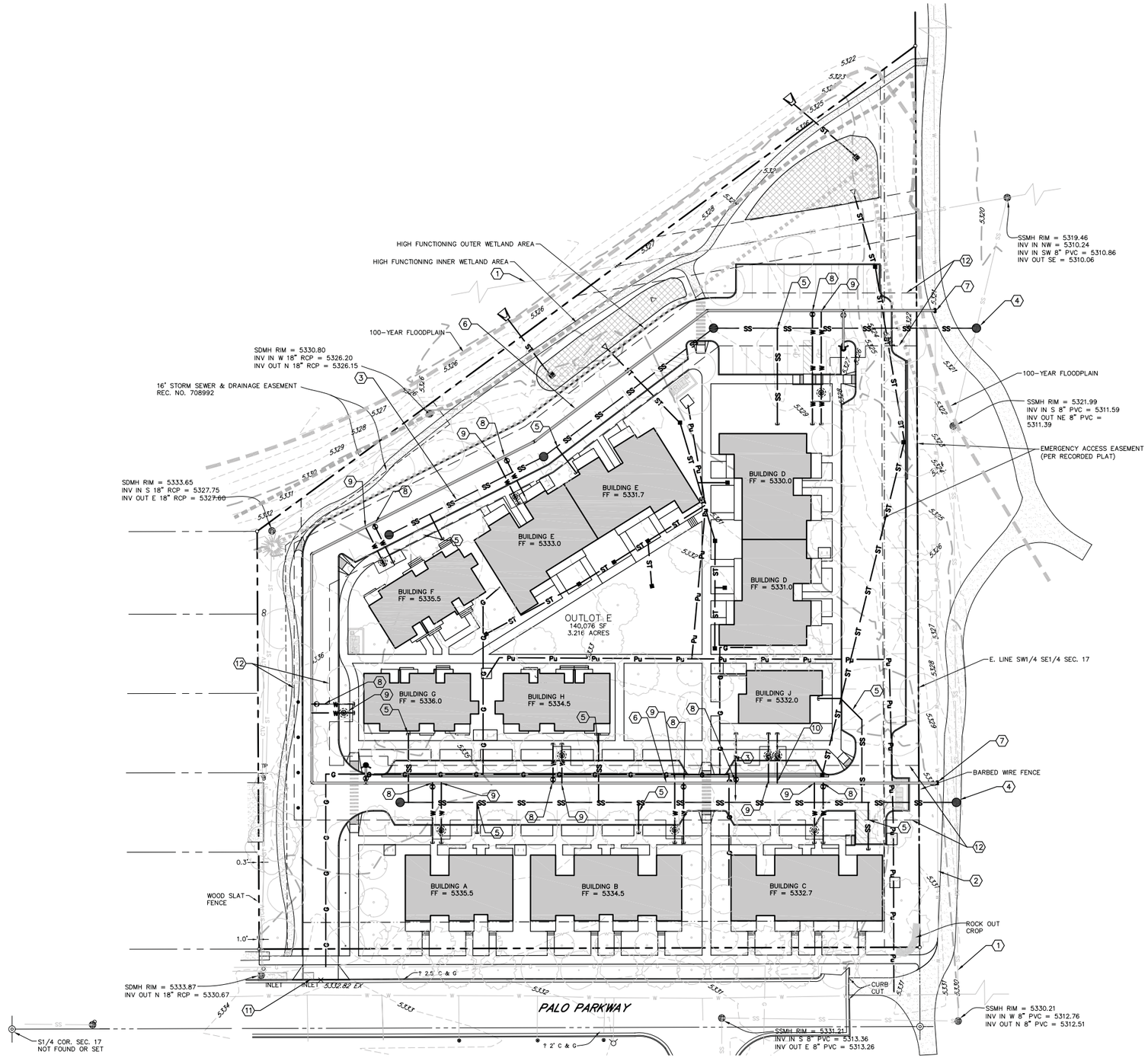
4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302

15_005_00

4525 Palo Parkway, Boulder, CO
80303

SITE REVIEW
Call Up
05/05/2016
4525 Palo Parkway



LEGEND

- EXISTING DECIDUOUS TREE
- EXISTING CONCRETE
- EXISTING EDGE OF ASPHALT
- EXISTING CURB & GUTTER
- EXISTING CLEAN OUT
- EXISTING SIGN
- EXISTING POWER POLE
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- EXISTING FENCE
- EXISTING CABLE TV
- EXISTING GAS LINE
- EXISTING SANITARY SEWER W/MANHOLE
- EXISTING WATER W/FIRE HYDRANT
- EXISTING STORM SEWER W/MANHOLE
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER W/FIRE HYDRANT
- PROPOSED STORM SEWER W/INLET
- PROPOSED UNDERGROUND POWER
- PROPOSED GAS LINE

KEYED NOTES

1. EXISTING SANITARY SEWER MAIN TO REMAIN.
2. EXISTING WATER MAIN TO REMAIN.
3. PROPOSED 8" SANITARY SEWER MAIN.
4. CONNECT TO EXISTING SANITARY SEWER MAIN.
5. PROPOSED 4" SANITARY SEWER SERVICE. (TYP.)
6. PROPOSED 8" WATER MAIN.
7. CONNECT TO EXISTING WATER MAIN.
8. PROPOSED 4" FIRE SERVICE. (TYP.)
9. PROPOSED 1.5" DOMESTIC WATER SERVICE AND METER.
10. PROPOSED IRRIGATION SERVICE.
11. EXISTING STORM SEWER INLET TO BE REMOVED AND REPLACED.
12. PROPOSED PUBLIC UTILITY EASEMENT.

UTILITY NOTES

1. ALL CITY UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF BOULDER STANDARD SPECIFICATIONS.
2. WATER, FIRELINE, SEWER TAPS, AND SERVICE LINE SIZES SHALL BE DETERMINED AT THE TIME OF BUILDING PERMIT APPLICATION.
3. ALL NEW WATER AND SANITARY SEWER SERVICE TAPS TO EXISTING MAINS SHALL BE MADE BY CITY CREWS AT THE DEVELOPER'S EXPENSE.
4. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE DONE IN A WAY SO AS TO MINIMIZE DISRUPTION IN SERVICE TO EXISTING USERS.
5. THE LOCATION OF THE ABOVE GROUND UTILITIES SHOWN HEREON ARE BASED ON THE FIELD SURVEY BY DREXEL BARRELL & CO. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SAID SURVEY AND INFORMATION PROVIDED BY OTHERS (WHICH MAY INCLUDE THE UTILITY OWNER OR UTILITY LOCATING SERVICES). SCOTT, COX & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR UTILITY INFORMATION PROVIDED BY OTHERS. SCOTT, COX & ASSOCIATES, INC. RECOMMENDS THAT THE LOCATION OF THE UTILITIES BE FIELD VERIFIED PRIOR TO ANY DIGGING ON, OR ADJACENT TO THE SUBJECT PROPERTY.
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7. ALL BUILDINGS SHALL BE INDIVIDUALLY SERVICED FROM THE PROPOSED UTILITY MAINS.

N

Scale: 1" = 30'

0 15 30 60

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DWG NO. 15257B-2

PALO PARK

Preliminary Utility Plan

SR-C1.03

BOULDER HOUSING PARTNERS

4525 Palo Parkway, Boulder, CO 80303

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15_005_00

4525 Palo Parkway, Boulder, CO
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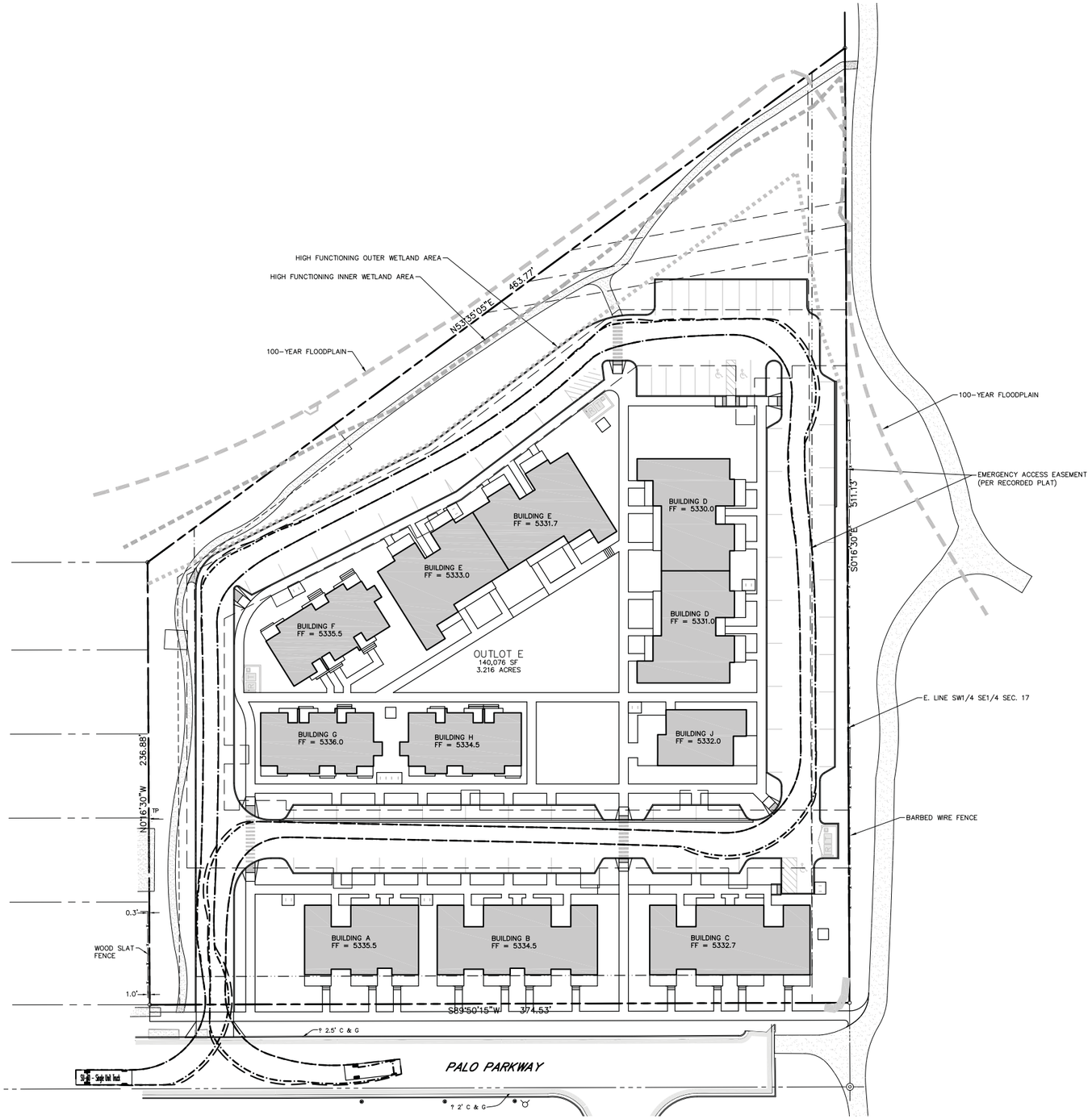
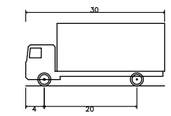
SITE REVIEW
Call Up
05/05/2016
4525 Palo Parkway





SU-30 – Single Unit Truck

OVERALL LENGTH	30.000ft
OVERALL WIDTH	8.000ft
OVERALL BODY HEIGHT	13.500ft
MIN BODY GROUND CLEARANCE	1.367ft
TRACK WIDTH	8.000ft
LOCK-TO-LOCK TIME	5.00s
MAX STEERING ANGLE	31.80°

OUTLINE OF WHEEL TRACK

OUTLINE OF BODY TRACK

Scale: 1" = 30'

0 15 30 60

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DWG NO. 15257B-2

PALO PARK

Preliminary Turning Analysis

SR-C1.04

BOULDER HOUSING PARTNERS

4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302

15_005_00

4525 Palo Parkway, Boulder, CO 80303

SITE REVIEW
05/05/2016

SITE REVIEW
Palo Park Community
4525 Palo Parkway

Boulder Housing Partners
4800 N Broadway
Boulderhousing.org

Written Statement & Site Review Criteria Response

April 4, 2016

Project Overview

Boulder Housing Partners, the Housing Authority of the City of Boulder, in partnership with Flatirons Habitat for Humanity, proposes a 44-unit, mixed-income and mixed-tenure housing development at 4525 Palo Parkway. This project is a unique opportunity to create new affordable units for families and individuals in a well-designed, sustainable, and vibrant community. The entire community will be 100% permanently affordable, with a range of incomes below 60% AMI.

Project History

Since the fall of 2014, **Boulder Housing Partners** (BHP) has been working closely with the **City of Boulder** and **Flatirons Habitat for Humanity** to plan for a new affordable family housing community located at 4525 Palo Parkway.

The City of Boulder acquired the property from Boulder Valley School District in 2006 with the intent of using it for an affordable housing development. BHP is proud that the City has entrusted us with the development of this property partnership with Habitat**,** and is now the owner of the property. The site was annexed into the City in early 2016 in order to develop this project. **The development of the Palo Park Community is listed as a priority in the City's 2016/2017 Housing Boulder Action Plan.**

Desired Outcomes

City Council has adopted a series of **Desired Outcomes** for the project as follows:

The City of Boulder and Boulder Housing Partners will work closely in concept planning, engaging the community, and developing options for the site. Through an open, inclusive and transparent process, the city and BHP will identify options that optimize the following desired outcomes:

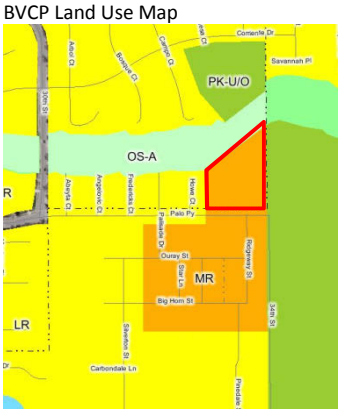
- *Collaborative public process from concept planning through final development approval;*
- *Design that is compatible with the existing neighborhood character and development patterns;*
- *100% permanent affordability with a mixture of ownership and rental housing;*
- *Mixed-income affordability from very low to moderate income;*
- *Housing that is consistent with the land use designation and policies of the Boulder Valley Comprehensive Plan;*
- *Development that accomplishes the following two goals of the Comprehensive Housing Strategy: Strengthen Our Current Commitments and Create Diverse Housing Choices;*
- *Financial viability and sustainability;*
- *Housing designs suitable for families and multiple generations; and*
- *Energy efficiency and green building practices and outcomes.*

Site Context and Zoning

The property located at 4525 Palo Parkway has recently been annexed into the City of Boulder to facilitate the development of this proposed affordable housing project. The land use designation per the BVCP is Medium Density Residential (MR) with a planned density of six to 14 dwelling units per acre. This project is consistent with this MR land use, proposing a density of 13.7 dwelling units per acre. The zoning designation of the property is Residential-Mixed 2, which permits 10 dwelling units per acre, or up to 20 dwelling units for acre for affordable housing development.

The neighborhood immediately to the south (Northfield Commons) is also zoned RMX-2 while the area to the east (Pleasantview Soccer Complex) is zoned Public (P). The project site is also adjacent to the Palo Park neighborhood in unincorporated Boulder County to the north and west, where the county zoning is Suburban Residential. Directly to the north of the site is the Four Mile Creek corridor and associated greenway.

BVCP Land Use Map



City of Boulder Zoning Map

Program

The Palo Park Community project is a proposed new affordable family housing development at 4525 Palo Parkway that will be integrated into the Palo Park and Northfield Commons neighborhoods. The site is 3.2 acres and is currently vacant.

The proposed project consists of 44 new dwelling units in the form of triplexes, townhomes, and stacked apartments. Boulder Housing Partners will develop and manage 35 rental units, and Flatirons Habitat for Humanity will build nine homeownership units. The anticipated unit mix for the site is: 13 one-bedroom units, 14 two-bedroom units, and 17 three-bedroom units.

The development is focused around a central green space, which provides the potential for strong community-building. The plan offers several amenities including a community center, a playground, and community gardens. A footpath and a network of sidewalks will be provided as part of the new development in order to continue this permeability through the site.

There is one proposed access point serving the project. At the request of neighbors, this access point has been off-set from Ridgeway Street to discourage traffic cutting through Northfield Commons. We are proposing a one-way looped private road through the site which will provide vehicular and emergency access.

Community Benefit

The Palo Park Community supports both the City's long term goals and the objectives of the Boulder Valley Comprehensive Plan by adding significant value to the community through the provision of affordable housing. The level of coordination between local, state, and federal resources required to provide a 100% affordable project is extraordinary. This is why there are very few fully affordable projects built in Boulder each year.

The Palo project, as proposed, will be 100% affordable and will provide 44 new homes to low and moderate income families. The project will serve families and individuals earning between 30-60% of the Area Median Income. For a family of four, this equates to annual household incomes between $29,820 and $59,640.

The Palo Park project is unique in that it will provide both homeownership and rental opportunities within the neighborhood. Boulder Housing Partners plans to develop and manage 35 rental units and Flatirons Habitat for Humanity will develop nine homes for purchase. All units will be permanently affordable.

Design Intent

The architectural character of the Palo Park project is intended to evoke, above all else, a sense of community and compatibility with the existing neighborhood. The outdoor spaces created by the placement of the buildings and other improvements on the site are intended to be pedestrian in scale and to connect the residents to the environment and to each other.

There is an intentional effort in the design to provide permeability to this development, to maintain a visual connection between the adjacent neighborhoods of Palo Park to the west and Northfield Commons to the south, the Four Mile Creek and greenway corridor to the north, and the multi-use path and play fields to the east. At the same time, there is an internal focus created within the project towards the Village Green; a park-like space surrounded by the higher density structures (which contain the majority of BHP's two-bedroom and three-bedroom units in stacked flats) as well as the three Habitat triplexes. This orientation was created so that the children living in the higher density apartments have a safe and secure place to play outside which is immediately adjacent and highly visible from where they live. As a complement to this approach to the core of the site, and as a gesture to reinforce the existing streetscape along Palo Parkway, the development is completed with a series of two-story townhomes which are a mixture of one-bedroom and two-bedroom BHP units. Each of these units incorporates an articulated front porch and a pitched roof to complement the scale and rhythm of the existing streetscape which is common to so many established Boulder neighborhoods.

The style of the proposed architecture can best be described as a blend of traditional farmhouse and contemporary craftsman, a character that is sensitive to the surrounding community. The design of this new development will facilitate strong integration and add value to the existing neighborhood. Through community engagement, the neighbors expressed a strong preference for more saturated earth-tone

colors and natural materials. The materials are modern, consisting mostly of painted cement board siding and trim with accents in stone veneer along Palo Parkway units. Vinyl windows, painted metal doors, a combination of asphalt shingle and natural metal roofing and painted metal gutters and downspouts round out the list of primary exterior components. The landscaping is intended to be native, low water use grasses, trees and shrubs.

The end product will be a holistic design, creating a harmonious vernacular that is residential in feel, traditional in scale and material, and tastefully understated in execution as one would expect for an affordable housing project built by Boulder Housing Partners.

Estimated Development Schedule

Pending approvals and project financing, Boulder Housing Partners anticipates beginning construction on the 35 rental units in late 2016, with a construction duration of 13-14 months. BHP plans to lease-up these units in early to mid-2018.

Flatirons Habitat for Humanity currently anticipates construction of their nine units to begin in late 2017. They intend to build one tri-plex per year, for three years.

Proposed Modifications

This application requests the following modifications to be permitted and approved for this development:

- **Maximum Height** – BHP requests an increase in maximum allowable building height for the two stacked flat apartment buildings from 35’ to 43’ 8.5”, measured per BRC standards. Ordinance No. 8028 from February 2015 identifies that the maximum height for principal buildings may be modified if at least 40% of the building is used for permanently affordable units. This project is providing 100% permanently affordable units. These buildings were intentionally sited at the northeast corner of the property in response to comments from neighbors, in order to shift density away from existing residential development. This location, however, happens to be near the lowest point topographically on the site. A height modification is requested due to this

topography, combined with a desire to improve the architectural compatibility for the three-story buildings.

- **Density** – The RMX-2 zoning allows for residential development at a density up to 20 dwelling units per acre for projects delivering affordable housing. BHP is requesting a density of 14 dwelling units per acre for this site, which is consistent with the BVCP Medium Density Residential land use designation. The project is providing 100% permanently affordable units.
- **Building Type** – The BRC requires for the RMX-2 zoning district that a lot or parcel shall not be developed with more than 50% of any one housing type. BHP requests a modification to this criterion to allow this project to include 24 of the 44 units (54%) as multi-family stacked flats in two buildings. These 24 units would include 8 one-bedroom units, 8 two-bedroom units, and 8 three-bedroom units. The remainder of the units on-site would be split between townhomes and triplex housing types.

Transportation Demand Management

BHP strives to educate residents about alternate modes of transportation, emphasizing that taking the bus, riding a bike or taking some other form of alternate transportation is as convenient as driving a car. A Transportation Demand Management Plan has been submitted to the City. This plan includes the provision of neighborhood eco passes to BHP residents, and bike parking in excess of requirements. BHP maintains partnerships with both eGo Carshare and Boulder BCycle, however, these two organizations have indicated they are not yet prepared to extend their existing networks at this time. For this reason, BHP is looking at other creative options. We are currently in discussions with a new Boulder County non-profit called Chain Reaction who is interested in partnering with BHP at this site to provide families and individuals with bikes through an earn-a-bike program. BHP is also working with the City identify the possible enhancements to the bus stop along 28th Street, which would benefit the greater neighborhood.

Parking

Through community engagement, BHP has consistently heard a request from neighbors to accommodate adequate parking for the residents on-site. We also consistently heard a concern that overflow parking will contribute to congestion that already exists in the neighborhood. For this reason, we are not requesting a parking reduction for the project at this time, and are instead, providing parking above City's code requirement.

During the Concept Plan Review, the City requested that BHP complete a survey of parking at some of BHP's comparable sites. BHP hired transportation engineers to visit four of BHP's family properties at peak time on two occasions (one weekday and one weekend day) to determine how the parking at the sites is being utilized. Based on this information, we determined that the provision of 1.4 parking spaces per unit should provide sufficient parking for this proposed neighborhood. This results in a total of 63 parking spaces, compared to the BRC requirement of 52 parking spaces. The transportation engineer also performed surveys of the public right of way along Palo Parkway and determined that only 24% of the available parking spaces are being utilized.

BHP understands that the larger neighborhood is facing existing parking issues, especially as it relates to the use of the Pleasantview Soccer Complex. BHP will continue to advocate for evaluation and

improvements to this situation through conversations with FC Boulder and the City (Parks and Transportation).

SUSTAINABILITY

One of the primary goals of BHP's newly implemented Strategic Plan is minimizing our environmental impact. This goal calls for consistent and innovative improvements to the BHP portfolio and practices regarding environmental impact. BHP is a national leader in sustainability within affordable housing, and we are constantly striving to reduce our overall consumption of resources. Our organizational goal is to become the first Net Zero Housing Authority in the country. To date, BHP has installed almost 1 megawatt of solar PV across our portfolio. We have partnered with Eco Cycle to maximize our waste diversion rates. Our waste diversion goals are in sync with the City and County efforts to be near zero waste by 2025. BHP was awarded a Boulder Energy Grant which will help us accelerate our resident engagement pertaining to energy use. Staff has partnered with the City of Boulder Water department on a pilot program to sub meter several properties with real time meters. All of these efforts have led to significant resource and costs savings as well as a great opportunity to engage with residents around water conservation. BHP staff intends to explore the application of all this knowledge and experience to the development of Palo Park.

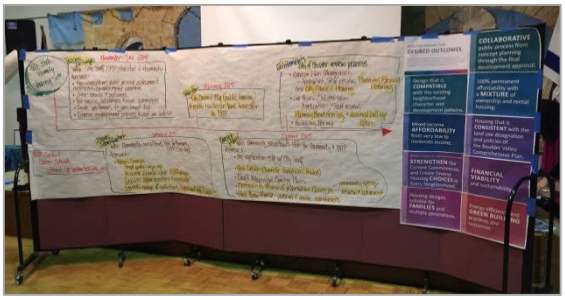
Habitat has also made a commitment to being a leader in building sustainable and energy-efficient affordable homes for hard-working families. They seek ongoing partnerships with programs and certifications, such as LEED for Homes, ENERGY STAR, and Indoor airPLUS.

Beyond complying with the City of Boulder's Green Points program, this project will fulfill the requirements of the Enterprise Green Communities (EGC) program. This program helps to bring the health, economic, and environmental benefits of sustainable construction to affordable housing development, and is a requirement of receiving Low Income Housing Tax Credits. These standards address the project holistically, and focus on integrative design, location and neighborhood fabric, site improvements, water conservation, energy efficiency, materials, healthy living environment, and operations, maintenance, and resident engagement.

COMMUNITY ENGAGEMENT

BHP has a very strong commitment to neighborhood engagement. Over the past year, BHP has been working closely with residents of the surrounding neighborhoods to design a plan for the site. That process involved a lot of listening about concerns, answering questions, and collaborative problem solving.

Below is a list of some of the many opportunities where neighbors could choose from to discuss the project with BHP or the City. We have engaged neighbors through **30 meetings**, dozens of phone conversations and hundreds of emails with neighbors. It is our intention to continue to collaborate with the community throughout the predevelopment and development process.



Neighborhood Meetings

- Focus Groups – 4 in January 2015 (January 13, 15, 27, 29)
- Property Walkabouts, - June 2, 6, 9, 23
- Community Visioning Meeting – June 17, 2015
- Concept Plan Open House – July 22, 2015
- Neighborhood Open House/BBQ – September 9, 2015

Land Transfer Approval

- City Council - September 2, 2014
- City Council - February 17, 2015
- City Council - May 19, 2015

Concept Plan Review and Annexation Approval

- Planning Board - November 19, 2016
- City Council 1st Reading – December 1, 2015
- City Council 2nd Reading and Approval - January 5, 2016 (and Concept Plan Review)

While disagreements with some neighbors still remain over the proposed density of the site, Boulder Housing Partners has responded to the following neighborhood design priorities:

- Incorporate sufficient parking for residents on-site. As mentioned above, BHP is proposing parking that we believe is appropriate for the site, and which is above what the BRC requires for this zoning district.
- Provide a buffer to the single family homes to the west. Minimize activity and parking on the west.
- Provide a buffer to the creek and floodplain and protect natural resources.
- Ensure design compatibility with surrounding neighborhood.
- Create streetscape along Palo Parkway to match existing neighborhood.
- Locate higher density housing towards the northeast.
- Provide access to the site that is off-set from Ridgeway Street. We heard support on this topic from City Council, and this is supported by the traffic study.
- Provide permeability through site and access to the creek for neighbors. BHP has provided strong pedestrian connections through the site.
- Provide playground and community gardens as amenities for residents.

SITE REVIEW CRITERIA

(1) Boulder Valley Comprehensive Plan:

✓ **(A) The proposed site plan is consistent with the land use map and the service area map and, on balance, the policies of the Boulder Valley Comprehensive Plan.**

The site is located within the City of Boulder, and has a current land use designation of Medium Density Residential in the Boulder Valley Comprehensive Plan. The BVCP defines Medium Density Residential as six to 14 dwelling units per acre. The proposal of 13.7 dwelling units per acre is consistent with medium density development. On January 5, 2016, City Council approved the annexation of the property into the City of Boulder.

The proposed site plan is also consistent with the goals, objectives, and recommendations of the BVCP by providing significant community benefit. The proposed project will provide 100 percent permanent affordability with a mixture of ownership and rental housing. The project will have mixed-income affordability from very low to moderate income. Provided housing choices are suitable for families and individuals.

✓ **(B) The proposed development shall not exceed the maximum density associated with the Boulder Valley Comprehensive Plan residential land use designation.**

The proposed development does not exceed the maximum density associated with the BVCP Medium Density Land Use designation.

✓ **(C) The proposed development's success in meeting the broad range of BVCP policies considers the economic feasibility of implementation techniques require to meet other site review criteria.**

As a public agency, and the long-term owner/manager of this project, BHP is fully committed to consider the economic feasibility of implementation techniques required to meet other site review criteria. BHP has been successfully developing new affordable housing in this community for nearly 30 years, and has been providing services for 50 years.

BHP is held to the same standards of development, while relying on incomes that are restricted in perpetuity. This requires us to seek subsidy from many funding sources to help support our projects. The level of coordination between local, state, and federal resources required to provide a 100% affordable project is extraordinary. All of these generous funding partners scrutinize the ever-increasing cost to deliver affordable units, especially in Boulder County. For this reason, we must be very aware of the cost implications of added design requirements and amenities.

✓ **((2) Site Design: Projects should preserve and enhance the community's unique sense of place through creative design that respects historic character, relationship to the natural environment, multi-modal transportation connectivity and its physical setting. Projects should utilize site design techniques which are consistent with the purpose of site review in subsection (a) of this section and enhance the quality of the project.**

Creating a sense of place is a key focus of this project, and is critical to the success of this community. The creative design responds to, and is respectful of, the architectural character of the surrounding neighborhoods. The outdoor spaces created by the placement of the buildings and other improvements on the site are intended to be pedestrian in scale and to connect the residents to the environment and to each other. The central green space was created so that the children have a safe and secure place to play outside which is immediately adjacent and highly visible from where they live.

Careful thought has been given to how the site layout responds to the Four Mile Creek to the north. We have provided a footpath to allow residents of this neighborhood, as well as surrounding neighborhoods to access and experience the natural area. Additionally, the project provides connections to the adjacent multi-modal path, which can connect residents to services in town as well as recreational opportunities.

✓ (A) Open Space: Open space, including, without limitation, parks, recreation areas, and playgrounds:

The proposed project provides significant open space for the future residents of the community. This is presented through the central green, playground, community gardens, as well as significant buffers to the west and north. Additionally, this site location provides easy access to several City parks including East Palo Park, Pleasantview Soccer Fields, and the newly constructed Elks Park. The proposed project provides two direct connections to the multi-modal path that is located directly east of the property.

> **✓ (i) Useable open space is arranged to be accessible and functional and incorporates quality landscaping, a mixture of sun and shade and places to gather;**

Useable open space provided is well above the required amount of 20%, with a combined total open space of 58%. Arrangement of the open space, as shown on the submitted drawings, has been carefully addressed to provide both active and passive areas for gathering. The areas for more active gathering include the central green, playground, picnic tables at the community center, and the community gardens. The project provides areas for passive activities through the buffer with native landscaping and footpath along the west and the northern boundaries of the property, leading to the creek corridor.

> **✓ (ii) Private open space is provided for each detached residential unit;**

This project provides 60 sf of private open space for each residential unit through a patio or balcony.

> **✓ (iii) The project provides for the preservation of or mitigation of adverse impacts to natural features, including, without limitation, healthy long-lived trees, significant plant communities, ground and surface water, wetlands, riparian areas, drainage areas and species on the federal Endangered Species List, "Species of Special Concern in Boulder County" designated by Boulder County, or prairie dogs (Cynomys ludiovicianus), which is a species of local concern, and their habitat;**

Natural resources have been carefully considered through the site design. BHP does not intend to develop within the floodplain or wetland buffer areas, with the exception of the footpath and water quality

In April 2015, BHP hired ERO Resources to conduct a natural resource assessment at the property, in order to identify any natural resources of importance. This assessment included a review of potential wetlands, identification of potential federally threatened and endangered species habitat, and identification of other wildlife habitat that might affect the development of the project area. ERO determined that no wetlands exist on the project site, and did not identify any suitable habitat for federally listed threatened or endangered species.

BHP requested that ERO also specifically evaluate the potential for firefly habitat at the site, in response to concern from neighbors. The report identified that the habitat for the species occurs to the north of the project site along Four Mile Creek. Though fireflies are not protected under any federal or local regulations, the report suggested that to minimize the impact of the proposed project on these fireflies, an unmowed buffer of tall grasses and other species be established adjacent to Four Mile Creek. BHP intends to do this, and has proposed tall grasses and Cottonwoods within the wetland buffer areas to encourage the firefly population.

BHP has also hired an arborist to complete a tree survey and evaluate the condition of the trees on-site. This report has been presented to the City for review. At the request of adjacent neighbors, the trees along the western property line will remain.

> ✓ **(iv) The open space provides a relief to the density, both within the project and from surrounding development;**

As discussed above, the proposed project provides significantly more open space than is required. The open space is well distributed throughout the site. The development is focused around a central green and gathering space, with more passive open space areas along the perimeters of the site, which provides a nice transition to surrounding uses including open space and native habitats.

> ✓ **(v) Open space designed for active recreational purposes is of a size that it will be functionally useable and located in a safe and convenient proximity to the uses to which it is meant to serve;**

This project provides a small playground for the future residents of the community, which is tucked into the center of the site, protected from any roadways. The play equipment is targeted towards younger children, with the understanding that there are several playgrounds and parks within walking and biking distance for older children.

> ✓ **(vi) The open space provides a buffer to protect sensitive environmental features and natural areas; and**

As discussed above, the propose plan has preserved open space on the northern boundary of the property to protect wetlands associated with Four Mile Creek. No development will occur within the wetland buffers, with the exception of the footpath and water quality.

✓ **(vii) If possible, open space is linked to an area- or city-wide system.**

This property is located directly adjacent to the Four Mile Creek corridor which is managed by the City's Greenways program. The site also has direct access to the vast multi-modal path system. The project has connected to the adjacent path in two locations.

N/A (B) Open Space in Mixed Use Developments (Developments that contain a mix of residential and nonresidential uses)

✓ **(C) Landscaping:**

✓ **(i) The project provides for aesthetic enhancement and a variety of plant and hard surface materials, and the selection of materials provides for a variety of colors and contrasts and the preservation or use of local native vegetation where appropriate;**

The native and adaptive plants proposed for this project provide a variety of season color and transition from the built environment to the adjacent open space and native communities.

✓ **(ii) Landscape design attempts to avoid, minimize, or mitigate impacts to important native species, plant communities of special concern, threatened and endangered species and habitat by integrating the existing natural environment into the project;**

Plant and seed selection help to minimize the transition into the native habitat on the norther and eastern boundaries of the property. On the northern edge along the drainage channel and wetland buffer, the project minimizes the impact as much as possible to allow the existing conditions (grad and plant materials) to remain. We are proposing that the entire buffer will not be mowed and the addition of Cottonwoods and tall grasses will encourage the firefly population.

✓ **(iii) The project provides significant amounts of plant material sized in excess of the landscaping requirements of sections 9-9-12, "Landscaping and Screening Standards" and 9-9-13, "Streetscape Design Standards," B.R.C. 1981; and**

This project meets the landscape standards outlined in the BRC. Along the northern and western edges of the property, a much larger buffer than required is provided in response to neighbor comments (25' provided versus 6' required).

✓ **(iv) The setbacks, yards, and useable open space along public rights-of-way are landscaped to provide attractive streetscapes, to enhance architectural features, and to contribute to the development of an attractive site plan.**

This project provides a completed streetscape along Palo Parkway right-of-way (8' tree lawn and large shade trees are proposed) to match the adjacent neighborhood.

✓ **(D) Circulation: Circulation, including, without limitation, the transportation system that serves the property, whether public or private and whether constructed by the developer or not:**

✓ **(i) High speeds are discouraged or a physical separation between streets and the project is provided;**

This project provides a private looped street through the development. The drive aisle width is set at 20' in order to slow traffic down and to minimize paved areas. At the request of the City, we have provided parallel parking along the majority of the street, which should slow traffic in addition to providing a physical separation between the streets and the pedestrian environment.

✓ **(ii) Potential conflicts with vehicles are minimized;**

In addition to slowing traffic through the strategies outline above, potential conflicts with vehicles are minimized through strong pedestrian connections throughout the site, crosswalks, and sidewalk bulb-outs.

✓ **(iii) Safe and convenient connections are provided that support multi-modal mobility through and between properties, accessible to the public within the project and between the project and the existing and proposed transportation systems, including, without limitation, streets, bikeways, pedestrianways and trails;**

The proposed project provides several safe and convenient connections through and around the site. A direct sidewalk connection with from Ridgeway Street provides a access to the public into the site via an enhanced promenade. An alternate route through the site is provided along the west and north via a footpath, ultimately connecting to the multi-modal path to the east. Additionally, BHP proposes to extend the sidewalk along the north side of Palo Parkway past the project boundary to provide a direct safe connection from the neighborhood to the multi-modal path and soccer fields.

✓ **(iv) Alternatives to the automobile are promoted by incorporating site design techniques, land use patterns, and supporting infrastructure that supports and encourages walking, biking, and other alternatives to the single-occupant vehicle;**

In addition to the multi-modal connections and traffic calming measures noted above, this project will include bike parking (short-term and long-term) scattered throughout the site in order to maximize accessibility and encourage biking for residents. We are proposing bike parking in excess of the requirements outlined in the BRC. Please see TDM plan for additional strategies to encourage alternatives to the single-occupant vehicle.

✓ **(v) Where practical and beneficial, a significant shift away from single-occupant vehicle use to alternate modes is promoted through the use of travel demand management techniques;**

An aggressive TDM is proposed, including NECO passes, ample short-term and long-term bike parking, as well as the potential for an earn-a-bike programs for residents. We are also working with the City identify the potential for enhancements to the bus stop along 28th Street, which would benefit the greater neighborhood.

✓ **(vi) On-site facilities for external linkage are provided with other modes of transportation, where applicable;**

The proposed design provides for 2 connections to the adjacent multi-modal path that runs parallel to the east property line; 1 at the northeast corner of the site as an extension of the proposed foot path and 1 as an extension of the sidewalk in the ROW of the Palo Parkway streetscape.

✓ **(vii) The amount of land devoted to the street system is minimized; and**

The project provides a private loop road that is 20' in width. This is the minimum width allowable per the Fire Department in order to adequately service the site for Emergency vehicles.

✓ **(viii) The project is designed for the types of traffic expected, including, without limitation, automobiles, bicycles, and pedestrians, and provides safety, separation from living areas, and control of noise and exhaust.**

The project has been carefully designed to provide safe and efficient travel for all modes of transportation. The drive throughout the site will be a private street, with traffic calming and pedestrian safety measures proposed.

✓ **(E) Parking:**

✓ **(i) The project incorporates into the design of parking areas measures to provide safety, convenience, and separation of pedestrian movements from vehicular movements;**

At the request and direction of PDS, the majority of the proposed parking is parallel parking on the loop drive. There are a total of 3 crosswalks within the site, providing adequate and safe crossing for pedestrians from the interior to the exterior of the loop drive. Trash collection and short term bike parking are distributed around the site such that residents do not need to cross vehicular paths to access their locations.

✓ **(ii) The design of parking areas makes efficient use of the land and uses the minimum amount of land necessary to meet the parking needs of the project;**

As stated above, the parking configuration has been designed with input from PDS, inclusive of both planning and transportation. Compact spaces are concentrated in the one parking lot area at the northeast corner of the site. The project is providing parking in excess of the requirements in the BRC in response to requests from the neighbors, as well as to best serve our residents.

✓ **(iii) Parking areas and lighting are designed to reduce the visual impact on the project, adjacent properties, and adjacent streets; and**

Per the photometrics indicated on the Site Lighting Plan, all site lighting proposed for the project has been selected and located to provide safe and adequate lighting while minimizing the visual impact on neighboring sites and meeting the City's development criteria for both safety and light spillover.

✓ **(iv) Parking areas utilize landscaping materials to provide shade in excess of the requirements in Subsection 9-9-6 (d), "Parking Area Design Standards," and Section 9-9-14, "Parking Lot Landscaping Standards," B.R.C. 1981.**

Per the Landscape Plan on Sheet SR-L1.01, planting adjacent to parking areas and drive aisles has been designed to provide shade in accordance with the City's development standards and guidelines.

✓ **(F) Building Design, Livability, and Relationship to the Existing or Proposed Surrounding Area:**

✓ **(i) The building height, mass, scale, orientation, and configuration are compatible with the existing character of the area or the character established by an adopted plan for the area;**

The proposed building heights are generally consistent with other 2 and 3 story homes in the neighborhood. The mass, scale, and orientation of the buildings to the surrounding streets are also consistent with the surrounding neighborhoods. The architectural character is consistent with and sensitive to the adjacent neighborhoods, which we heard from the community was a strong priority. The taller and higher density buildings have been tucked into the northeast corner of the site, in a location furthest away from the exiting single family detached homes in Palo Park and Northfield Commons.

✓ **(ii) The height of buildings is in general proportion to the height of existing buildings and the proposed or projected heights of approved buildings or approved plans for the immediate area;**

The primary reason for a request for height modification is to maintain a consistency in the slope and massing of the pitched or gabled roofs on the 3 story buildings. The proposal is responsive to the form, scale and rhythm of the streetscape vernacular in the Northfield Commons neighborhood across the street. BHP believes that maintaining the design continuity created by pitched roof and gables on all the buildings in the project warrants consideration of the requested height modification in order to maintain design continuity throughout the project.

✓ **(iii) The orientation of buildings minimizes shadows on and blocking of views from adjacent properties;**

As indicated in the Shadow Analysis on Sheets SR-A-4.00, the 3 story buildings are situated on the site such that shadows on other buildings are minimized and no views from other buildings are affected.

✓ **(iv) If the character of the area is identifiable, the project is made compatible by the appropriate use of color, materials, landscaping, signs, and lighting;**

The design of the proposed project attempts to draw inspiration from the materials, form and mass of the buildings in the surrounding neighborhoods. The design of the streetscape along Palo Parkway and the signage and lighting is consistent with City Standards which are also present in the surrounding neighborhoods.

✓ **(v) Projects are designed to a human scale and promote a safe and vibrant pedestrian experience through the location of building frontages along public streets, plazas, sidewalks and paths, and through the use of building elements, design details and landscape materials that include, without limitation, the location of entrances and windows, and the creation of transparency and activity at the pedestrian level;**

The features and amenities of the proposed design including the sidewalks, crosswalks, open spaces, streetscapes, footpaths, bike parking areas, plazas and play areas are all designed to be safe, of human scale, and supportive of a vibrant and interactive pedestrian experience. The design of the buildings, including the front porches, rear patios, and protective overhangs as well as the 'front porch entry' experience and the placement of windows and doors are such that a transparency and activity is reinforced at the ground level of all proposed buildings.

✓ **(vi) To the extent practical, the project provides public amenities and planned public facilities;**

This project will construct a public sidewalk along the north side of Palo Parkway, as well as provide an extension of this sidewalk to connect with the multi-modal path to the east. While the site will be privately owned, BHP welcomes members of the community to visit the neighborhood, and use the playground and community center for special events.

✓ **(vii) For residential projects, the project assists the community in producing a variety of housing types, such as multifamily, townhouses and detached single family units, as well as mixed lot sizes, number of bedrooms and sizes of units;**

This project provides community benefit through the provision of a variety of housing types. This project is unique in in that it will provide both homeownership and rental opportunities within the neighborhood. Boulder Housing Partners plans to develop and manage 35 rental units (one-, two-, and three-bedroom), and Flatirons Habitat for Humanity will develop nine, three-bedroom homes for purchase. All units will be permanently affordable, serving families and individuals that earn between 30-60% AMI.

✓ **(viii) For residential projects, noise is minimized between units, between buildings, and from either onsite or off-site external sources through spacing, landscaping, and building materials;**

Strategies will be employed in the construction of the building and the demising walls between units such that all applicable codes for noise transmission are met or exceeded. Plantings and landscape have been placed such that the impact of sound and light on adjacent properties and between buildings will be minimized.

✓ **(x) A lighting plan is provided which augments security, energy conservation, safety, and aesthetics;**

A Site Lighting Plan including photometrics demonstrating compliance with all City Standards is provided on Sheet SR-E1.01. Careful attention will be paid to the balancing the lighting so that the site is safe and secure, while also being respectful to the surrounding neighbors.

✓ **(xi) The project incorporates the natural environment into the design and avoids, minimizes, or mitigates impacts to natural systems;**

As stated above, the major component of the natural environment is the Four Mile Creek to the north of the site. The proposed plan offers protection to the wetlands by providing open space along this creek corridor.

✓ **(xii) Buildings minimize or mitigate energy use; support on-site renewable energy generation and/or energy management systems; construction wastes are minimized; the project mitigates urban heat island effects; and the project reasonably mitigates or minimizes water use and impacts on water quality.**

BHP has a goal of achieving a near net zero energy use for this project, which is consistent with BHP's strategic plan goals for new development. To achieve these energy goals, this project will employ numerous strategies including, but not limited to: low energy lighting fixtures, EnergyStar appliances, high performance mechanical systems, smart framing and super insulated walls and roofs, and solar PV. BHP is also in discussion with the City, County, and other partners to evaluate whether an EV charging station is appropriate at this site, and identifying potential funding sources for this feature.

In addition to reducing energy use, the project will achieve greater sustainability goals through the following: low water use plumbing fixtures, efficient irrigation systems and landscape materials, construction waste management, continuous mechanical ventilations, and low VOC interior paints, adhesives, and sealants.

✓ **(xiii) Exteriors or buildings present a sense of permanence through the use of authentic materials such as stone, brick, wood, metal or similar products and building material detailing;**

The use of 'authentic' materials in this project must be balanced with economic realities of providing 100% permanently affordable housing. To that end, stone veneer is concentrated on the townhome buildings along Palo Parkway. We heard a strong preference from neighbors that we not use brick on this project. The porch roofs over the 1st floor patio entries incorporate standing seam metal roofing. Cementitious siding, which has a warrantable lifespan longer that 'natural' wood is used on the majority of the exterior in both horizontal lapped and vertical board and batten configurations. Vertical 'shake' shingles are used as architectural accents along with other traditional 'cottage' detailing to tie the design together.

✓ **(xiv) Cut and fill are minimized on the site, the design of buildings conforms to the natural contours of the land, and the site design minimizes erosion, slope instability, landslide, mudflow or subsidence, and minimizes the potential threat to property caused by geological hazards;**

Through design of the site, areas of cut and fill have been minimized. The building placement conforms to the natural contours of the land. There are no geologic hazards at the site, and erosion control measures will be provided.

N/A (xv) In the urbanizing areas along the Boulder Valley Comprehensive Plan boundaries between Area II and Area III, the building and site design provide for a well-defined urban edge; and

N/A (xvi) In the urbanizing areas located on the major streets shown on the map in Appendix A of this title near the Boulder Valley Comprehensive Plan boundaries between Area II and Area III, the buildings and site design establish a sense of entry and arrival to the City by creating a defined urban edge and a transition between rural and urban areas.

✓ **(G) Solar Siting and Construction: For the purpose of ensuring the maximum potential for utilization of solar energy in the City, all applicants for residential site reviews shall place streets, lots, open spaces, and buildings so as to maximize the potential for the use of solar energy in accordance with the following solar siting criteria:**

✓ **(i) Placement of Open Space and Streets: Open space areas are located wherever practical to protect buildings from shading by other buildings within the development or from buildings on adjacent properties. Topography and other natural features and constraints may justify deviations from this criterion.**

The layout of the site was accomplished with placement of open space and streets in mind. The site design has evolved over time, with influences derived from input received at community meetings, public hearings, and comments from PDS, Planning Board and City Council. BHP believes that the best possible configuration, balancing the needs and desires of all stakeholders, is represented in the proposed design.

✓ **(ii) Lot Layout and Building Siting: Lots are oriented and buildings are sited in a way which maximizes the solar potential of each principal building. Lots are designed to facilitate siting a structure which is unshaded by other nearby structures. Wherever practical, buildings are sited close to the north lot line to increase yard space to the south for better owner control of shading.**

Given the constraints of the irregular shape of the property, topography, the floodplain and wetland buffer, site access, direct relationship to the Palo Parkway, and ultimate goals for the project, the orientation of the buildings is unfortunately not optimized for solar potential. The buildings are configured to minimize shading of each other and of adjacent structures. BHP does intend to explore the use of solar PV on appropriate roof areas, and within the project budget. This solar PV system has not yet been designed.

✓ **(iii) Building Form: The shapes of buildings are designed to maximize utilization of solar energy. Buildings shall meet the solar access protection and solar siting requirements of section 9-9-17, "Solar Access," B.R.C. 1981.**

The form of these buildings has considered all aspects for balancing the potential for solar energy, the special attention giving to the open space in prioritizing the pedestrian, and developing a site plan which adheres to many principles of good urban design where buildings address the streets.

✓ **(iv) Landscaping: The shading effects of proposed landscaping on adjacent buildings are minimized.**

Where possible, trees have been proposed, while minimizing any impacts on the solar potential of the buildings.

N/A **(H) Additional Criteria for Poles Above the Permitted Height: No site review application for a pole above the permitted height will be approved unless the approving agency finds all of the following:**

N/A **(I) Land Use Intensity Modifications:**

N/A **(J) Additional Criteria for Floor Area Ratio Increase for Buildings in the BR-1 District:**

N/A **(K) Additional Criteria for Parking Reductions: The off-street parking requirements of section 9-9-6, "Parking Standards," B.R.C. 1981, may be modified as follows:**

N/A **(L) Additional Criteria for Off-Site Parking: The parking required under section 9-9-6, "Parking Standards," B.R.C. 1981, may be located on a separate lot if the following conditions are met:**

Additional Information for Height Modification:

✓ **5. How does the proposal accommodate pedestrians, including without limitation uses proposed for the ground level, percent of transparent material at the ground level, and signage and graphics?**

The proposal accommodates pedestrians by completing the streetscape along Palo Parkway in accordance with the City's design standards including a continuation of street trees and extension of a detached sidewalk along the entire frontage as well as a connection of the sidewalk to the multi-modal path at the east side of the property Additionally, the project provides significant pedestrian permeability through the site via a network of sidewalks and paths. First, a strong connection to Northfield Commons has been created as a continuation of Ridgeway Street north to the Community Center, playground, past the community gardens, and ultimately to the open space and creek corridor along the northern boundary of the site. The project also includes a proposed footpath which traverses the west edge of the property up to the creek corridor, eventually connecting to the multimodal path.

In addition to the pedestrian amenities discussed above, the proposed open spaces, streetscapes, footpaths, bike parking areas, plazas and play areas are all designed to be safe, of human scale, and supportive of a vibrant and interactive pedestrian experience. The design of the buildings, including the front porches, rear patios, and protective overhangs as well as the 'front porch entry' experience and the placement of windows and doors are such that a transparency and activity is reinforced at the ground level of all proposed buildings.

Conclusion

Thank you for taking the time to review and consider this Site Review application. We look forward to working with City staff, Planning Board, and City Council to make this project a reality. Our goal for this project is to create a well-integrated community that will provide permanently affordable, safe, and healthy homes for future Boulder residents.

Project Team

Boulder Housing Partners

Founded in 1966, Boulder Housing Partners (BHP) is the housing authority for the City of Boulder. Our goal is to make living in Boulder possible and affordable, regardless of income. We are committed to fostering a healthy sense of community in every property we develop.

We build, own and manage 33% of the total inventory of affordable housing in Boulder, making a strong contribution to City Council's goal that 10% of all housing is permanently affordable. We actively seek opportunities to grow our housing inventory. BHP provides assistance nearly two thousand households through five housing programs. In all of our work, Boulder Housing Partners strives to provide homes, create community and change lives

SITE REVIEW
Palo Park Community
4525 Palo Parkway

Boulder Housing Partners
4800 N Broadway
Boulderhousing.org

Site Review Comment Response

May 5, 2016

Airport Influence Zone

BHP understands that we must apply to the FAA for an Obstruction Clearance Review once plans are finalized, and prior to building permit. An avigation easement has already been executed for the property.

Access/Circulation

1. **Pursuant to Section 2.04(l)(1) of the City's Design and construction Standards (DCS), the radii curb returns being shown for the access point must be replaced with a driveway ramp for a detached sidewalk as shown in technical drawing 2.21 of the DCS which will eliminate the need for curb-ramps.**
   The site plan has been revised to accommodate this request.

2. **Following up on Dave Lowrey's (Fire Protection) comment below and pursuant to Section 2.10 (D)(4) of the DCS, please revise the site plans to demonstrate the street corners/curves can accommodate an SU-30 vehicle.**
   A Preliminary Turning Analysis for an SU-30 vehicle has been included with the resubmittal.

3. **Please revise the site plan to provide a concrete surface for sections of the four-foot wide crusher fines trail that are within City right-of-way.**
   The site plan has been revised to accommodate this request.

4. **Pursuant to section 4.7.10 of the Guide to the Americans with Disabilities Act Accessibility Guidelines (ADAAG Manual) please revise the site plans to demonstrate the diagonal curb ramps meet section 4.7.10 with respect to providing a 4-foot landing area and a segment of straight curb at least 2-feet within the crosswalk or revise site plan to provide perpendicular curb ramps.**
   The site plan has been revised to demonstrate perpendicular curb ramps.

5. **Per section 4.7 of the ADAAG Manual, please revise the site plans to provide curb ramps for the northern crosswalk if the crosswalk is part of an accessible route between the site and crusher fines trail.**
   The site plan has been revised accordingly.

6. **Please revise the project's TDM Plan to add language on the number of years that residents will be provided Eco-Passes and to include funding transit stop improvements for the southbound transit stop of 28th Street to encourage ridership.**
   The TDM Plan has been revised to incorporate these items.

7. **In support of meeting the site review criteria on circulation outlined in section 9-2-14(h)(2)(D), B.R.C. 1981, please revise the site plan to move the parallel parking along the northwest of the site from the north side of the access street to the south in order to eliminate conflicts between crossing pedestrians and vehicles.**
   The site plan has been revised to move the parallel parking along the northwest of the site from the north side of the access street to the south in order to eliminate conflicts between crossing pedestrians and vehicles.

8. **In meeting <u>section 9-9-6(g)(3), B.R.C. 1981,</u> regarding the location of short-term bike parking, please revise the site plan to place short-term bike parking at each of the different buildings.**
   The site plan has been revised to place short-term bike parking at each of the different buildings. A total of 36 short term bike parking spaces are provided.

9. **Please revise the written statement to describe if the long-term bike parking is available to all residents or is being provided in some of the residential units.**
   *Long-term bike parking is available to **all residents**, and is provided in the following manner:*
   -Exterior Long-Term Bike Parking: 44 spaces (These spaces are located on the ground floor of Buildings A through E)
   Building A: 4 spaces
   Building B: 4 spaces
   Building C: 4 spaces
   Building D: 16 spaces
   Building E: 16 spaces
   -In Unit Long-Term Bike Parking: 22 spaces
   Building A: 1 space (In 1 BR unit)
   Building B: 2 spaces (1 in each 1-BR unit)
   Building C: 1 space (In 1BR unit, Not in ADA unit)
   Habitat Building F: 6 spaces (2 per unit)
   Habitat Building G: 6 spaces (2 per unit)
   Habitat Building H: 6 spaces (2 per unit)

<u>Building and Housing Codes</u>

1. **Please be advised that per 2012 IBC Table 2902.1, a second restroom is required in the community center. The restrooms in the units may not be substituted for public restrooms.**
   We are currently working to refine the programmatic requirements of the Community Center and will incorporate a 2nd restroom.

2. **Please be advised that fire separation distances will need to be considered between buildings.**
   Fire separation distances will be considered between buildings. Please note that all buildings on the project (except for the Community Center) will be equipped with automatic sprinkler systems, which will significantly reduce the required separations allowed without introducing protective openings.

3. **Please clearly identify all accessible units (Type A and B).**
   There are (2) Type A Accessible Units in the project; a 1BR Row Home in Building C (east end) and a 2BR Flat on Level One of Building D. All units with at-grade entries (all row homes and all level-one flats) will be Type B Accessible. All level-two and level-three flats, while not required to be Type B Accessible because there is no elevator service, are also designed to meet Type B Accessible standards within the unit.

Building and Site Design

1. **Refer to Landscape comments below regarding the provision of detached sidewalks in order to accommodate mature trees along the drive aisles. The buildings must present an attractive streetscape and provide for the safety and convenience of pedestrians, as required by Site Review.**
   The site plan has been revised to detach sidewalks at the entry and along the east-west drive aisle, and can now accommodate larger street trees. Additionally, we have been able to widen the space between the buildings and the sidewalk along the eastern (north-south) drive aisle, allowing us additional room to plant trees.

2. **Per the site review criterion 9-2-14(h)(2)(F)(v), projects should be designed to a human scale and promote a safe and vibrant pedestrian experience through the location of building frontages along public streets, plazas, sidewalks and paths, and through use of building elements, design details and landscape materials that include, without limitation, the location of entrances and windows, and the creation of transparency and activity at the pedestrian level. In support of this criterion, Buildings D & E (stacked flats) should front on the drive access, not the village green area. The plans currently show the west elevation as having front doors with porches and the east elevation as having decks/balconies facing the drive access. Consideration should also be given to creating more emphasis to the entrances to the flats on the upper floors.**
   Buildings D & E have been flipped. The front doors and porches now front on the drive access, not on the village green area.

3. **In coordination with detaching the sidewalk on the south side of the drive access, move the transformer back from the sidewalk and screen with landscaping.**
   The transformer has been relocated to the east side of the property and has been screened.

4. **In order to make the garden area more accessible and functional, consideration should be given to moving the community gardens to the south next to the community center. This would require shifting Building D to the north. The proposed head-in parking could also be moved to be adjacent to the community center, for use for employees of service providers that use the community center. The relocated garden area could shield the higher intensity residential uses and would be impacted by less shading.**
   Thank you for your comments. We have located the community gardens intentionally at the northeast corner of the site for several reasons, including:
   - *We would like to keep as much of the Building D fronting the central green as possible, for the benefit of the residents living there.*
   - *Due to topography, shifting the Building D north would require an additional height modification request.*
   - *We wanted to distribute the activity throughout the site, as well provide separate opportunities for passive and active uses.*

5. **The design of the community center should be emphasized, especially due to the height of the adjacent buildings. The design at concept plan included a tower feature which has been lost in the revised plans.**
   BHP received mixed reviews related to the architectural character of the community center proposed in the concept plan. This, in addition to being mindful of budget on this affordable

housing project, led the design team to revise the community center to a more traditional farmhouse character.

6. **In support of comments 4 and 5 above, the community center could be shifted slightly to the west to become more visible to Palo Parkway, and act as an architectural statement and unifying structure for the development.**
   In response to feedback from Planning Board and Council on the concept plan, it was important to BHP to provide a strong pedestrian connection through the site from the Northfield Commons neighborhood. Shifting the community center to the west would disrupt this linear connection from south to north. Pedestrians entering the site via the enhanced promenade will be able to see the front porch of the community center, which will provide outdoor seating for users of this building and the playground.

7. **In response to neighborhood comment and Planning Board/City Council feedback at Concept Plan Review, please address how storage is being accommodated for each unit, since garages are not being provided.**
   Oversized closets/laundry rooms are being provided within each unit for storage. This is in addition to the long-term covered bike parking that is provided in each building.

Drainage

1. **The plans show the proposed water quality pond on top of an existing wastewater trunk main and easement. Relocation of the pond is required.**
   This pond has been relocated north of the existing wastewater trunk main and easement. A second water quality pond has been added to the northwest side of the site.

2. **The following contours shown on the Preliminary Grading, Drainage, and Erosion Control Plan need to be corrected:**
   - **The 31 contour at the southeast corner of Building E shops and does not connect to Building D**
   - **The 31 contour southeast of Building J does not connect to the 31 contour east of Building C**
   - **The 33 contour at the northwest corner of Building C stops and does not connect to Building B**
   - **The 35 contour at the northwest corner of Building F stops and does not connect to Building G**

   The plans have been revised to accommodate these requests.

Fire Protection

The turning radius must meet a SU-30 criteria.
A Preliminary Turning Analysis for an SU-30 vehicle has been included with the submittal.

Landscaping

1. **The primary area of concern involves the attached sidewalks and numerous medium and large trees planted in the locations that are neither code compliant for separation of trees and buildings nor practical from a long term maintenance and success perspectives. Street trees are required on private streets.**
   As noted above, the site plan has been revised to detach sidewalks at the entry and along the east-west drive aisle, and can now accommodate larger street trees. Additionally, we have been

able to widen the space between the buildings and the sidewalk along the eastern (north-south) drive aisle, allowing us additional room to plant trees. Please note we have reduced the setback along Palo Parkway from 25' to 15', still compliant with code requirements.

2. **Another factor to consider includes evaluation of soil conditions and limitations on drip irrigation immediately next to building foundations. Staff has reviewed projects nearby that have expansive soils limiting landscape irrigation options. The numerous small planters adjacent to buildings could be significantly impacted.**
   The site plan has been revised. We have been able to enlarge some of the planter areas and will continue to work on these areas as we progress through the design process.

3. **The areas marked as non-irrigated native seed need additional detail and should probably be separated into wetland buffer and non-wetland related landscaping. Remove the irrigation reference entirely as all seed needs irrigation for establishment. The details of the irrigation plan will be developed at the Technical Document Review.**
   The site plan and notes for seeding have been revised to accommodate these requests.

4. **Regarding overall species selection, as currently laid out the design has some conflicts with tree selections, adjacent pedestrians, adjacent buildings, and longevity. The plan should change significantly with sidewalk changes. Please consider the following:**
   a. **The crimson spire oak may not perform well in the soils and has issues with leader damage; it is also likely too big for the planting areas as currently designed**
   b. **The autumn brilliance serviceberry is likely too wide for the areas specified**
   c. **The pear is too close to adjacent pavement**

   The site plan and notes for trees have been revised. Many small trees have been replaced with larger street tress per new street alignments and have been moved to provide a minimum of 3' to walks.

5. **Staff appreciates preservation of the cottonwoods on the western property line. It is not advisable to locate the proposed path under their canopy. It is recommended to realign the path to avoid any impact and any future hazardous conditions.**
   The existing cottonwoods were retained at the request of the adjacent neighbor to the west. The site plan has been revised to move the proposed path further east away from the existing cottonwoods.

6. **The location of the small community garden area seems disconnected from the larger open area and clubhouse. It may also have some exposure issues given the proximity of structures. Consider moving it south to be contiguous to the large open space and shifting residential units and the clubhouse north. The location is also more centrally accessible to residents.**
   Thank you for your suggestion. As discussed above, we have located the community gardens intentionally at the northeast corner of the site for several reasons, including:
   - *We would like to keep as much of the Building D fronting the central green as possible, for the benefit of the residents living there.*
   - *Due to topography, shifting the Building D north would require additional height modification request.*
   - *We wanted to distribute the activity throughout the site, as well provide separate opportunities for passive and active uses.*

Plan Documents

1. **Please provide a Land Use Summary Table on sheet SR-A1.01. A.**
   A Land Use Summary Table has been provided on sheet SR-A1.01. A.

2. **If possible, move open space tabulation and dwelling unit matrix to sheet SR-A1.01**
   The Open Space tabulation and Dwelling Unit matrix has been moved to sheet SR-A1.01

3. **Revise the open space tabulation to include a summary table like the one provided. Please move this to SR-A1.01, if possible.**
   The open space tabulation has been revised to include a summary table similar to the one provided.

4. **Please move the parking tables to sheet SR-A1.01 and include rows to demonstrate how the required parking is calculated.**
   The Parking Tables have been revised and moved as requested.

5. **Update open space diagram to include all areas of open space that meet the standards of subsections 9-9-11(e) and (f), B.R.C. 1981, not just parking area.**
   The open space diagram has been revised to include all areas of open space that meet the standards of B.R.C.

6. **Call out locations and quantities of bike parking on landscape plan (sheet SRL1.01) and on the site development plan (sheet SR-A1.01).**
   The locations and quantities of bike parking have been called out on the landscape plan and on the site development plan as requested. A total of 102 bike parking spaces will be provided, including 66 long-term spaces and 36 short-term spaces.

7. **Provide a materials board and refined materials list for each building. This can be provided on one comprehensive board or separately for each building type.**
   A Materials Board will be provided as requested prior to Planning Board.

8. **Provide color elevations and perspectives, including the window finish for Buildings F, G, and H.**
   Colored Elevations and perspectives of Buildings F, G, and H have been provided.

9. **The applicant's response to criteria describes a goal of achieving a near net zero energy use for this project, including the use of solar PV. Please show the conduit for future rooftop PV systems on the plan set.**
   Conduit will be placed inside the buildings in strategically selected locations (MEP chases) to facilitate future PV installation when that becomes a reality.

10. **In support of the site review criteria related to energy use, consideration should be given to providing at least one dual cord electrical vehicle charging station.**
    This project budget currently does not include funding for an electrical vehicle charging station. In anticipation of a future EV charging station, BHP will provide electrical wiring necessary for when funding becomes available.

11. **Provide an updated comprehensive elevation/street view from Palo Parkway for Buildings A, B, and C that shows the view shed from Ridgeway Street, similar to the one provided at Concept Plan.**
    The design of the Row Homes has not changed substantially since Concept Review, and the rendering provided then is still representative of the proposed project. This rendering has been included in this submittal.

12. **In support of the height modification request, please quantify what amount of the modification is necessary due to topography and what amount is due to the design (pitched roofs).**
    BHP has requested a height modification for the two stacked flat buildings to be built up to 43' 8.5", a request of 8' 8.5" above 35' requirement. Of that total request, approximately 3' 2" is due to architectural character (pitched roofs), and the balance of 5' 6.5" is due to topography.

    If the flats buildings were constructed on a flatter area of the site (SW corner), the height modification request would likely be only approximately 3'2", which would then be due to architectural character. If the flats buildings were constructed on a flatter area of the site (SW corner), AND the roofs were made flat, no height modification request would be necessary. BHP believes that both the proposed location of the buildings on the site and the architectural character (pitched roofs) improve the compatibility of the project with the surrounding neighborhood.

13. **Please provide the full solar analysis worksheet on the solar analysis sheets. The worksheet can be found in the Solar Access Guide. Also, please remove analysis #2 on these sheets representing a shadow cast by a 35' building within the building envelop since it confuses the height modification request.**
    The requested modifications will be updated in a submittal prior to Planning Board.

14. **Provide a preliminary lighting plan. Per site review criterion <u>9-2-14(h)(2)(F)(ix)</u> a lighting plan must be provided which "augments security, energy conservation, safety and aesthetics" Refer to wetlands informational comments below. Demonstrate how the informal path will be illuminated for use and safety without impacts to the wetlands.**
    Please refer to the Photometric Plan and advise of additional information is required prior to Planning Board.

15. **Revise sheet SR-C1.00 to meet the requirements for a preliminary plat in <u>section 9-12-6</u> B.R.C 1981. Per <u>section 9-12-6(a)</u> B.R.C. 1981, the preliminary plat may be an application under Site Review if it meets the requirements of this section.**
    A Preliminary Plat has been included with the submittal.

<u>Wetlands</u>

1. **As currently proposed, the project will require a Standard Wetland permit in accordance with <u>section 9-3-9</u> of the Boulder Revised Code, 1981. The wetland permitting criteria require that the applicant demonstrate that the activity is designed and located to minimize the direct impacts to the adjacent wetland, stream, or water body. Mitigation will be required for any permanent impacts to the Four Mile Creek wetland area, including improvements associated with the water quality pond outfall.**
   Thank you for the comment. This has been noted.

2. **Please label the wetland zones on the Preliminary Grading, Drainage, and Erosion Control Plan and the Landscape Plan.**
   The plans have been revised accordingly.

3. **The Natural Resources Assessment prepared by ERO Resources Group recommends the establishment of an un-mowed buffer of tall grasses and other species adjacent to Four Mile Creek to minimize the impacts of the project on fireflies. Firefly habitat has been proposed south of the path and native non-irrigated seed has bene proposed north of the path, only if the areas are to be disturbed. The design should be revised to provide firefly habitat on the creek side of the path.**
   The plans have been revised accordingly.

PRELIMINARY DRAINAGE REPORT

Palo Park Housing Development
4525 Palo Parkway
Boulder, Colorado

April 4, 2016
Revised May 5, 2016

Prepared for:

Boulder Housing Partners
4800 North Broadway
Boulder, Colorado 80304

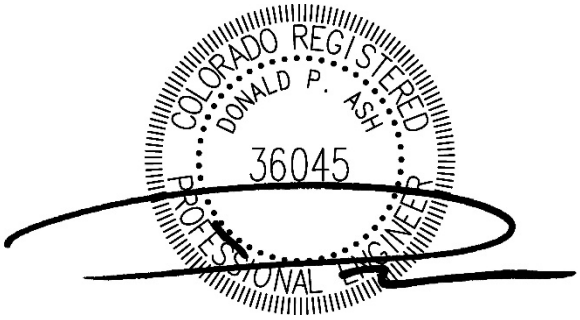
Prepared by:

SCOTT, COX & ASSOCIATES, INC.
consulting engineers - surveyors
1530 55th Street - Boulder, CO 80303
303-444-3051

Project No. 15257B

ENGINEER'S STATEMENT

I hereby certify that this report for the preliminary drainage design for the Site Review at 4525 Palo Parkway was prepared under my direct supervision in accordance with the provisions of the City of Boulder Design and Construction Standards for the owners thereof.



Donald P. Ash
Registered Professional Engineer
State of Colorado No. 36045

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STORM WATER QUALITY AND EROSION CONTROL	4
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FINAL GRADING AND DRAINAGE PLAN

APPENDIX A:
RUNOFF CALCULATIONS

APPENDIX B:
WATER QUALITY CALCULATIONS

INTRODUCTION

This report is submitted as the Preliminary Drainage Report of the existing and proposed conditions for the Palo Parkway Residential Development, located at 4525 Palo Parkway in the City of Boulder. The site is located in the Southwest ¼ of the Southeast ¼ of Section 17, Township 1 North, Range 70 West of the 6th Prime Meridian, in the City of Boulder, Boulder County, State of Colorado. The site is bounded by the Fourmile Canyon Creek to the north, existing residential properties to the west, Palo Parkway ROW to the south, and City of Boulder owned recreational areas to the east.

This report is being prepared to accompany the Site Review submittal for the project. The purpose of this Preliminary Drainage Report and Plan is to address specific drainage issues related to the proposed site changes. This study meets the requirements set forth in the City of Boulder Design and Construction Standards.

EXISTING ON-SITE DRAINAGE

The existing 3.25 acre site is currently undeveloped native grassland. The site generally slopes from the southwest to northeast at an average slope of 2%. The majority of storm runoff drains via overland flow either to the north or to the east, ultimately flowing into Fourmile Canyon Creek, which runs along the northern edge of the site from the west to east. Existing storm sewer, which conveys runoff from offsite areas, runs within a 16-foot drainage easement along the west, and a portion of the north, property line. Existing drainage patterns are shown on the Preliminary Grading, Drainage and Erosion Control Plan that is included with this report. For the purposes of this report, the existing site has been broken into three (3) sub-basins, Basins H1-H3.

Basin H1 is located along the south side of the site. Runoff from within this basin drains via overland flow to the south property line and then to the Palo Parkway ROW.

Basin H2 is located in the central portion of the site. Runoff from within Basin H2 flows via overland to the east into the recreational area along the east property line. This runoff ultimately flows into Fourmile Canyon Creek.

Basin H3 is located along the north edge of the property. Runoff in this basin flows via overland flow directly into Fourmile Canyon Creek.

Existing runoff calculations for the existing basins have been included in Appendix A. The runoff from the existing site is summarized in Table 1.

PROPOSED ON-SITE DRAINAGE

The Preliminary Grading, Drainage & Erosion Control Plan shows the proposed Site Plan, on-site grading and overland flow directions. Under the proposed conditions, the site will be divided into four (4) sub-basins, Basin A1-A4.

Basin A1 is located on the south edge of the site. This basin is similar to, but slightly smaller than, Historical Basin H1, and those flow patterns will be retained. Basin A1 flows via overland flow to the south side of the property and then onto the Palo Parkway ROW.

Basin A2 is the majority of the central portion of the site. Basin A2 includes the remainder of the developed portion of the property. Runoff from within Basin A2 will flow via a swale, sheet, concrete pan, and storm sewer into the water quality ponds at the north side of the property.

Basin A3 is located along the eastern edge of the site. Runoff from within this basin flows via overland flow to the recreational area to the east of the site. This flow is similar to Historical Basin H2, but the flow has been significantly reduced, as only the landscaped portions on the eastern side of the site are included in this basin.

Basin A4 is located at the north edge of the site. Runoff from within this basin flows via overland flow directly into Fourmile Canyon Creek. This flow is similar to Historical Basin H3, but the flow has been slightly reduced.

Proposed drainage patterns are shown on the Final Grading, Drainage and Erosion Control Plan. Proposed runoff calculations for Basin P have also been enclosed in Appendix A. Proposed runoff from the site is shown in Table 1.

DRAINAGE DESIGN CRITERIA

As required in City of Boulder Design and Construction Standards for Drainage Improvements (DCS) for all sites using detention, hydrologic information was developed for an initial storm return period of 5-years and major storm return period of 100-years. The criteria and methodology used in determining the storm runoff peaks and volumes were those outlined in the DCS.

The design rainfall data used in this study was taken from the time-intensity-frequency curve for the City of Boulder (Figure 7-1 DCS) as developed by Urban Drainage and Flood Control District (UD&FCD). Runoff calculations were obtained using the Rational Method as outlined in the DCS for basins having less than 160 acres.
The Rational Formula is:

$$Q = CIA$$

Where:
- Q = Peak Discharge (cfs)
- C = Runoff Coefficient (Table 7-2 CBDCS)
- I = Rainfall Intensity (in/hr) (Figure 7-1 CBDCS)
- A = Drainage Basin Tributary Area (acres)

The existing and proposed conditions for the entire site were analyzed for the 10 and 100-year storm events. The results are shown in the following Table 1 and the relevant calculation sheets are provided in Appendix A.

TABLE 1

Drainage Basin	Area (acres)	5-Year Peak Runoff (cfs)	100-Year Peak Runoff (cfs)
Basin H	3.22	1.67	9.36
Basin H1	0.62	0.46	2.74
Basin H2	2.17	1.13	6.32
Basin H3	0.43	0.30	1.76
Basin A	3.22	7.37	20.22
Basin A1	0.46	1.23	3.39
Basin A2	2.44	6.23	15.97
Basin A3	0.15	0.16	0.90
Basin A4	0.16	0.17	0.96

DETENTION STORAGE

Storm runoff due to the proposed improvements will increase during the 5-year and 100-year storm events. This is due to the increase of the overall imperviousness of the site. The increase in storm water runoff will discharge directly into Fourmile Canyon Creek drainageway and will not impact downstream properties. Due to this drainage condition, detention will not be required on this site. Water quality facilities will be provided for this site in the form of an Extended Detention Basin.

Two Extended Detention Basins have been designed to provide the required water quality capture volume (WQCV) for this site. The calculations for the facility sizing are enclosed in Appendix B.

A limited release orifice plate will provide the required 40-hour drain time for the water quality capture volume. The orifice plate meets the requirements for an extended detention basin and the 40-hour drain time as specified in the Urban Drainage and Flood Control District (UDFCD) Drainage Criteria Manual.

In the event the individual ponds were to overflow, the flow will be directed to the emergency spillways and spill directly to the Fourmile Canyon Creek drainageway. The spillways will be sized to convey two times (2X) the runoff from the developed conditions during the 100 year storm from their basins.

By maintaining this water quality capture volume, it is our conclusion that the runoff for the initial and major storm events from the tributary basin can be conveyed directly to the major drainage system without adversely impacting upstream, surrounding, or downstream properties and facilities, per Section 7.12 of the City of Boulder Design and Construction Standards.

STORM WATER QUALITY

The principal form of storm water quality runoff enhancement is the utilization of an Extended Detention Basin (EDB) facility. Surface drainage from the developed surfaces of the site will drain to the Water Quality pond where runoff from the pond will be conveyed through the water quality outlet structure into Fourmile Canyon Creek. The use of the EDB as a storm water quality runoff enhancement is consistent with the Urban Drainage and Flood Control District, Urban Storm Drainage Criteria Manual, Volume 3, Best Management Practices.

FLOOD STATEMENT

Based on the FEMA Flood Insurance Rate Map (FIRM) - Map Number 08013C0411 J dated December 18, 2012, the majority of the site is located in Zone X and is outside any mapped 100-year floodplain.

CONCLUSIONS

The primary consideration for this project was to design a drainage plan for the site to accommodate the proposed development plan without having adverse impact on the surrounding properties. The drainage plan handles runoff from 5-year and 100-year storm events. All analyses were performed in accordance with the City of Boulder Design and Construction Standards.

APPENDIX A

RUNOFF CALCULATIONS

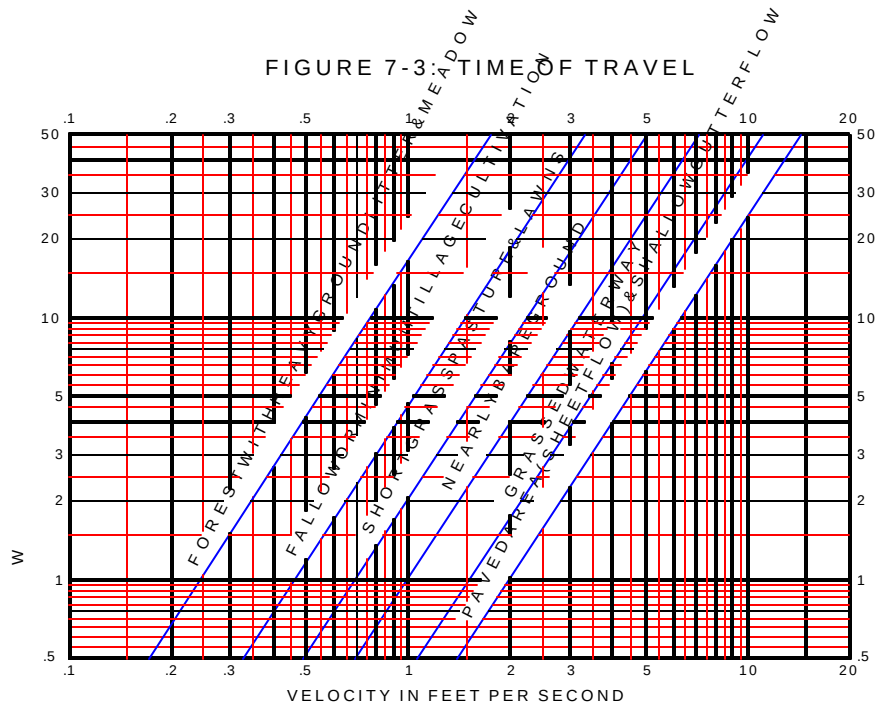
Table 7-2: Runoff Coefficients for the Rational Method

LAND USE OR SURFACE CHARACTERISTICS	PERCENT IMPERVIOUS	STORM FREQUENCY			
		2-Yr	5-Yr	10-Yr	100-Yr
Business:					
Commercial Areas	95	0.87	0.88	0.90	0.93
Neighborhood Areas	65	0.60	0.65	0.70	0.80
Residential:					
Single-Family	40	0.40	0.45	0.50	0.70
Multi-Unit (detached)	50	0.50	0.55	0.60	0.75
Multi-Unit (attached)	70	0.65	0.70	0.70	0.80
½ Acre Lot	30	0.30	0.40	0.45	0.65
Apartments	70	0.65	0.70	0.70	0.80
Industrial:					
Light Areas	80	0.75	0.80	0.80	0.85
Heavy Areas	90	0.80	0.80	0.85	0.90
Parks, Cemeteries:	7	0.15	0.25	0.35	0.60
Playgrounds:	13	0.20	0.30	0.40	0.70
Schools:	50	0.50	0.55	0.60	0.75
Railroad Yard Areas:	40	0.40	0.45	0.50	0.70
Undeveloped Areas:					
Historic Flow Analysis	2	0.10	0.20	0.30	0.60
Greenbelts, Agricultural	-	-	-	-	-
Offsite Flow Analysis (when offsite land use is not defined)	45	0.45	0.50	0.55	0.72
Streets:					
Paved	100	0.87	0.88	0.90	0.93
Gravel	7	0.15	0.25	0.35	0.65
Drives and Walks:	96	0.85	.087	0.90	0.92
Roofs:	90	0.80	0.85	0.90	0.90
Lawns:					
Sandy Soil	0	0.00	0.10	0.20	0.50
Clayey Soil	0	0.10	0.20	0.30	0.60

NOTE: These rational formula coefficients do not apply for larger basins where the time-of-concentration exceeds 60 minutes.

(Source: Urban Drainage and Flood Control District)

FIGURE 7-3: TIME OF TRAVEL



ESTIMATE OF AVERAGE FLOW VELOCITY FOR USE WITH THE RATIONAL METHOD

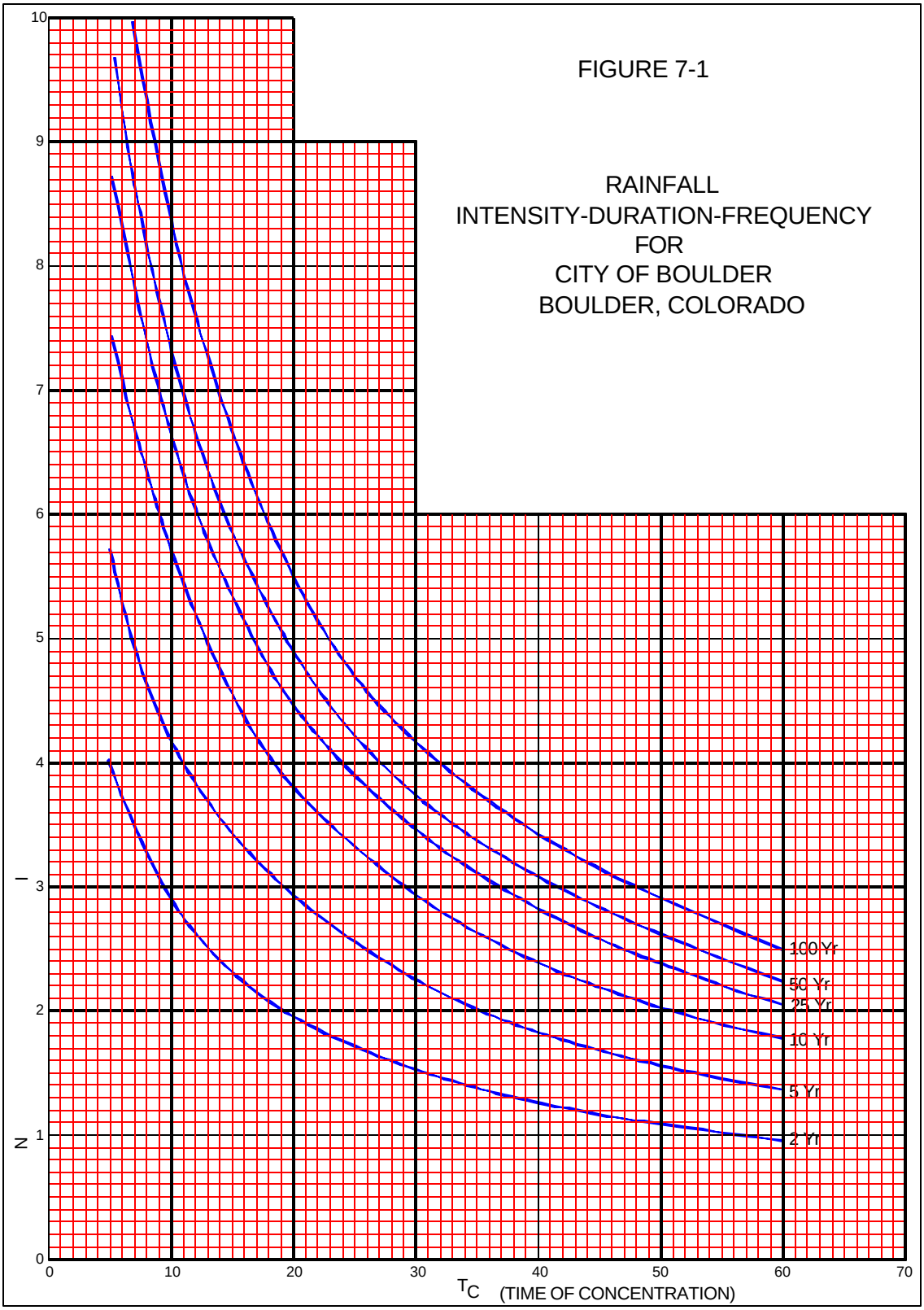


FIGURE 7-1
RAINFALL
INTENSITY-DURATION-FREQUENCY
FOR
CITY OF BOULDER
BOULDER, COLORADO
100 Yr
50 Yr
25 Yr
10 Yr
5 Yr
2 Yr
I
N
T
0
1
2
3
4
5
6
7
8
9
10
0
10
20
30
40
50
60
70
TC (TIME OF CONCENTRATION)

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PALO PARK HOUSING DEVELOPMENT

4525 PALO PARKWAY
BOULDER, COLORADO

Project #: 15257B
Date: 5/5/2016
By: MRF

Municipality: Boulder	Runoff Coefficients						Initial Overland Time (t_i) $t_i=1.8(1.1-C_5)L^{1/2}S^{-1/3}$			Travel Time (t_t) t_t=Length/(Velocity*60)					t_c Computed	t_c Urbanized Check		t_c Final	Rainfall Intensities (in/hr)				Flow Rates (cfs)			
Parcel Name	Parcel Size	C_2	C_5	C_{10}	C_{100}	% Impervious	Overland Flow (L_o) (ft)	Slope (ft/ft)	t_i (min)	Length (ft)	Slope (ft/ft)	Cv	Velocity (ft/s)	t_t (min)	Time of Conc $t_i + t_t = t_c$	Total Length (ft)	t_c=(L/180)+10 (min)	Minimum t_c=5 min	I_2	I_5	I_{10}	I_{100}	Q_2	Q_5	Q_{10}	Q_{100}
Basin H	3.22	0.10	0.20	0.30	0.60	2.00	382.0	0.024	24.2	0	0.0240	7	1.08	0.0	24.2	382	12.1	24.2	1.8	2.6	3.4	4.9	0.56	1.67	3.28	9.36
Basin H1	0.62	0.10	0.20	0.30	0.60	2.00	113.0	0.025	12.9	0	0.0240	7	1.08	0.0	12.9	113	10.6	12.9	2.5	3.7	5.1	7.4	0.15	0.46	0.94	2.74
Basin H2	2.17	0.10	0.20	0.30	0.60	2.00	382.0	0.024	24.1	0	0.0240	7	1.08	0.0	24.1	382	12.1	24.1	1.8	2.6	3.4	4.9	0.38	1.13	2.21	6.32
Basin H3	0.43	0.10	0.20	0.30	0.60	2.00	194.0	0.041	14.3	0	0.0240	7	1.08	0.0	14.3	194	11.1	14.3	2.4	3.5	4.7	6.9	0.10	0.30	0.60	1.76
Basin A	3.22	0.51	0.57	0.64	0.78	52.93	77.0	0.020	6.7	481	0.0100	20	2.00	4.0	10.7	558	13.1	10.7	2.8	4.0	5.5	8.1	4.62	7.37	11.27	20.22
Basin A1	0.46	0.42	0.49	0.56	0.74	40.50	42.0	0.030	5.0	0	0.0240	7	1.08	0.0	5.0	42	10.2	5.0	4.0	5.5	7.3	10.0	0.77	1.23	1.89	3.39
Basin A2	2.44	0.58	0.64	0.69	0.81	61.97	85.0	0.020	6.2	530	0.0150	20	2.45	3.6	9.8	615	13.4	9.8	2.8	4.0	5.5	8.1	3.99	6.23	9.34	15.97
Basin A3	0.15	0.10	0.20	0.30	0.60	0.00	22.0	0.182	2.9	0	0.0240	7	1.08	0.0	2.9	22	10.1	5.0	4.0	5.5	7.3	10.0	0.06	0.16	0.33	0.90
Basin A4	0.16	0.10	0.20	0.30	0.60	0.00	25.0	0.200	3.0	0	0.0240	7	1.08	0.0	3.0	25	10.1	5.0	4.0	5.5	7.3	10.0	0.06	0.17	0.35	0.96

SCOTT, COX & ASSOCIATES, INC.
consulting engineers - surveyors

PROJECT #: 15257B
DATE: 5/5/2016
BY: MRF

Historic Basin H

SURFACE	AREA	C_2	C_5	C_{10}	C_{100}	%IMP
ROOFS	0.00	0.80	0.85	0.90	0.90	90.00
DRIVES AND WALKS	0.00	0.85	0.87	0.90	0.92	96.00
HISTORIC	3.22	0.10	0.20	0.30	0.60	2.00
TOTAL AREA	3.22	**0.10**	**0.20**	**0.30**	**0.60**	**2.00**

Historic Basin H1

SURFACE	AREA	C_2	C_5	C_{10}	C_{100}	%IMP
ROOFS	0.00	0.80	0.85	0.90	0.90	90.00
DRIVES AND WALKS	0.00	0.85	0.87	0.90	0.92	96.00
HISTORIC	0.62	0.10	0.20	0.30	0.60	2.00
TOTAL AREA	0.62	**0.10**	**0.20**	**0.30**	**0.60**	**2.00**

Historic Basin H2

SURFACE	AREA	C_2	C_5	C_{10}	C_{100}	%IMP
ROOFS	0.00	0.80	0.85	0.90	0.90	90.00
DRIVES AND WALKS	0.00	0.85	0.87	0.90	0.92	96.00
HISTORIC	2.17	0.10	0.20	0.30	0.60	2.00
TOTAL AREA	2.17	**0.10**	**0.20**	**0.30**	**0.60**	**2.00**

Historic Basin H3

SURFACE	AREA	C_2	C_5	C_{10}	C_{100}	%IMP
ROOFS	0.00	0.80	0.85	0.90	0.90	90.00
DRIVES AND WALKS	0.00	0.85	0.87	0.90	0.92	96.00
HISTORIC	0.43	0.10	0.20	0.30	0.60	2.00
TOTAL AREA	0.43	**0.10**	**0.20**	**0.30**	**0.60**	**2.00**

SCOTT, COX & ASSOCIATES, INC.
consulting engineers - surveyors

PROJECT #: 15257B
DATE: 5/5/2016
BY: MRF

Proposed Basin A

SURFACE	AREA	C_2	C_5	C_{10}	C_{100}	%IMP
ROOFS	0.56	0.80	0.85	0.90	0.90	90.00
DRIVES AND WALKS	1.25	0.85	0.87	0.90	0.92	96.00
LAWNS - CLAYEY	1.41	0.10	0.20	0.30	0.60	0.00
TOTAL AREA	3.22	**0.51**	**0.57**	**0.64**	**0.78**	**52.93**

Proposed Basin A1

SURFACE	AREA	C_2	C_5	C_{10}	C_{100}	%IMP
ROOFS	0.10	0.80	0.85	0.90	0.90	90.00
DRIVES AND WALKS	0.10	0.85	0.87	0.90	0.92	96.00
LAWNS - CLAYEY	0.26	0.10	0.20	0.30	0.60	0.00
TOTAL AREA	0.46	**0.42**	**0.49**	**0.56**	**0.74**	**40.50**

Proposed Basin A2

SURFACE	AREA	C_2	C_5	C_{10}	C_{100}	%IMP
ROOFS	0.47	0.80	0.85	0.90	0.90	90.00
DRIVES AND WALKS	1.14	0.85	0.87	0.90	0.92	96.00
LAWNS - CLAYEY	0.84	0.10	0.20	0.30	0.60	0.00
TOTAL AREA	2.44	**0.58**	**0.64**	**0.69**	**0.81**	**61.97**

Proposed Basin A3

SURFACE	AREA	C_2	C_5	C_{10}	C_{100}	%IMP
ROOFS	0.00	0.80	0.85	0.90	0.90	90.00
DRIVES AND WALKS	0.00	0.85	0.87	0.90	0.92	96.00
LAWNS - CLAYEY	0.15	0.10	0.20	0.30	0.60	0.00
TOTAL AREA	0.15	**0.10**	**0.20**	**0.30**	**0.60**	**0.00**

Proposed Basin A4

SURFACE	AREA	C_2	C_5	C_{10}	C_{100}	%IMP
ROOFS	0.00	0.80	0.85	0.90	0.90	90.00
DRIVES AND WALKS	0.00	0.85	0.87	0.90	0.92	96.00
LAWNS - CLAYEY	0.16	0.10	0.20	0.30	0.60	0.00
TOTAL AREA	0.16	**0.10**	**0.20**	**0.30**	**0.60**	**0.00**

APPENDIX B

WATER QUALITY CALCULATIONS

SCOTT, COX & ASSOCIATES, INC.
consulting engineers - surveyors

PROJECT #: 15257B
DATE: 5/5/2016
BY: MRF

Calculate Water Quality Capture Volume
Reference UDFCD Manual - Volume 3

1. Basin Storage Volume

A. Imperviousness Ratio ($I = I_a / 100$) I_A = 52.93%
i = 0.529

B. Contributing Watershed A = 3.22 Acres

C. Water Quality Capture Volume (WQCV)
$WQCV = 1.0 \times (0.91 * i^3 - 1.19 * i^2 + 0.78 * i)$
WQCV = 0.214 in / acre

D. Design Volume
Volume = (WQCV / 12) * Area *1.2 Volume = 0.0689 acre - feet
For Extended Detention type pond 3,003 cubic feet

WATER QUALITY CAPTURE VOLUME (WQCV) = 3,003 cubic feet

SCOTT, COX & ASSOCIATES, INC.
consulting engineers - surveyors

PROJECT #: 15257B
DATE: 5/5/2016
BY: MRF

Calculate Required EGC Infiltration Volume
Reference 2015 Enterprise Green Communities Criteria - Section 3.3

1. Basin Storage Volume
   A. Imperviousness Ratio ($I = I_a / 100$) — I_A = 52.93%, i = 0.529

   B. Contributing Watershed — A = 3.22 Acres

   C. Infiltration Volume

   VOL = 1.000 in / acre

   Design Volume
   Volume = (VOL / 12) * Area * imperviousness — Volume = 0.1418 acre - feet, 6,178 cubic feet

EGC INFILTRATION VOLUME = 6,178 cubic feet

SCOTT, COX & ASSOCIATES, INC.
consulting engineers - surveyors

PROJECT #: 15257B
DATE: 5/5/2016
BY: MRF

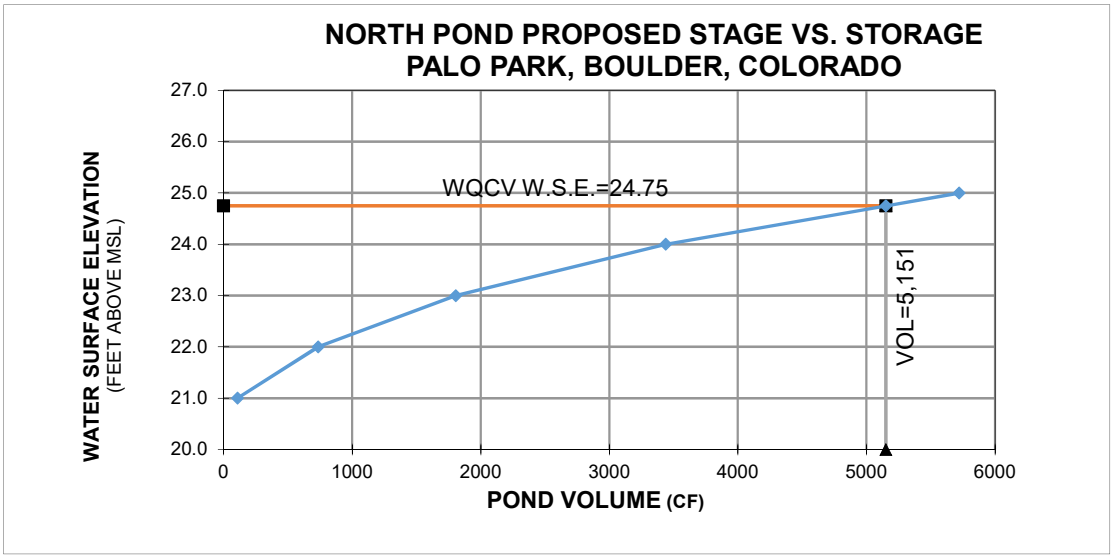
WQCV W.S.E.: 24.75

NORTH POND VOLUME CALCULATION

ELEVATION	DEPTH	AREA S.F.	WEIGHTED AVG AREA S.F.	INCREMENTAL VOLUME C.F.	CUMMULATIVE VOLUME C.F.
20.5		0			
	0.5		218	109	109
21.0		435			
	1.0		628	628	736
22.0		820			
	1.0		1,070	1,070	1,806
23.0		1,319			
	1.0		1,633	1,633	3,438
24.0		1,946			
	1.0		2,283	2,283	5,721
25.0		2,620			

TOTAL (CUBIC FEET)	5,721

	STAGE/STORAGE
STAGE(SF	CUM VOL(CF)
21.00	109
22.00	736
23.00	1,806
24.00	3,438
24.75	5,151
25.00	5,721



SCOTT, COX & ASSOCIATES, INC.
consulting engineers - surveyors

PROJECT #: 15257B
DATE: 5/5/2016
BY: MRF

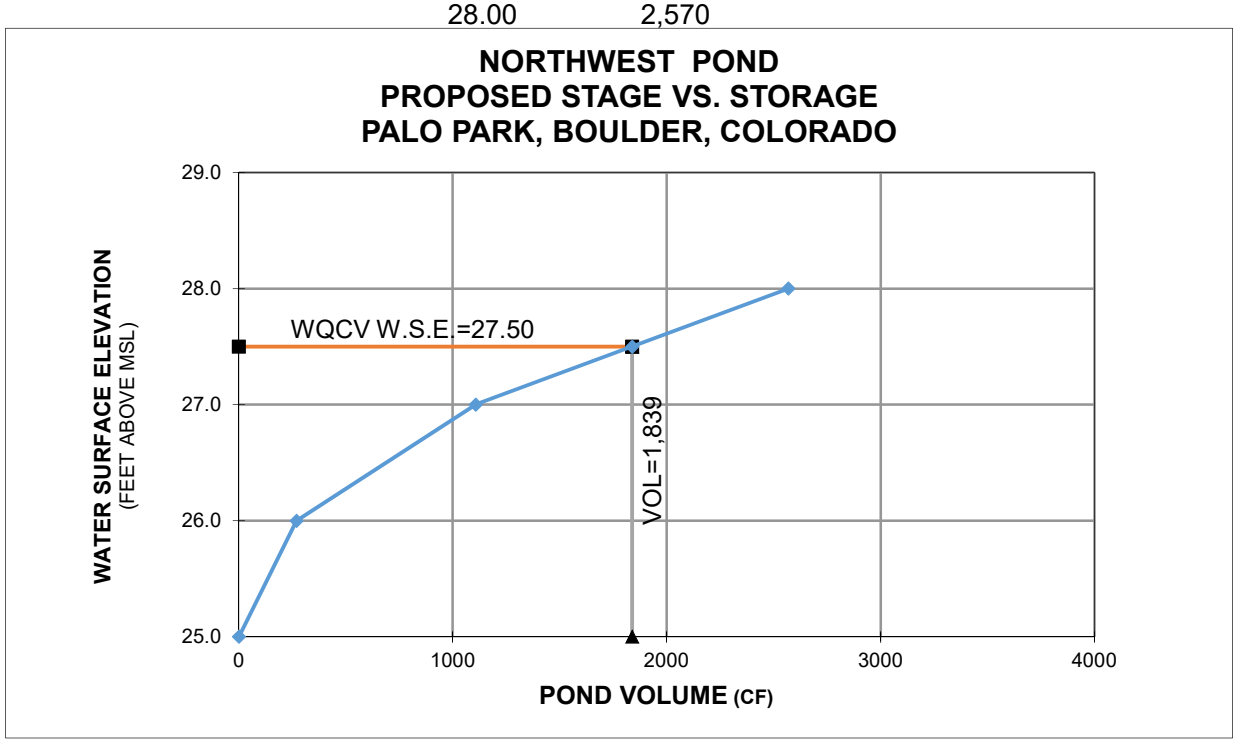
WQCV W.S.E.: 27.50

NORTHWEST POND VOLUME CALCULATION

ELEVATION	DEPTH	AREA S.F.	WEIGHTED AVG AREA S.F.	INCREMENTAL VOLUME C.F.	CUMMULATIVE VOLUME C.F.
25.0		0			
	1.0		270	270	270
26.0		540			
	1.0		838	838	1,108
27.0		1,135			
	1.0		1,462	1,462	2,570
28.0		1,789			

TOTAL (CUBIC FEET)	2,570

	STAGE/STORAGE
STAGE(SF	CUM VOL(CF)
25.00	0
26.00	270
27.00	1,108
27.50	1,839
28.00	2,570



United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for

Boulder County Area, Colorado

PALO PARK

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:974 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 45 90 180 270

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Boulder County Area, Colorado
Survey Area Data: Version 12, Sep 22, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 30, 2014—Sep 18, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Boulder County Area, Colorado (CO643)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CaB	Calkins sandy loam, 1 to 3 percent slopes	0.8	22.1%
NdD	Nederland very cobbly sandy loam, 1 to 12 percent slopes	2.7	77.9%
Totals for Area of Interest		**3.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If

intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Boulder County Area, Colorado

CaB—Calkins sandy loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: jprc
Elevation: 4,900 to 5,500 feet
Mean annual precipitation: 12 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 140 to 155 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Calkins and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Calkins

Setting

Landform: Flood plains, terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium

Typical profile

H1 - 0 to 14 inches: sandy loam
H2 - 14 to 60 inches: sandy loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: About 24 to 36 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B
Ecological site: Sandy Bottomland (R067XB031CO)

Minor Components

Mcclave

Percent of map unit: 6 percent

Valmont

Percent of map unit: 6 percent

Nunn

Percent of map unit: 3 percent

NdD—Nederland very cobbly sandy loam, 1 to 12 percent slopes

Map Unit Setting

National map unit symbol: jps7
Elevation: 5,500 to 6,500 feet
Mean annual precipitation: 15 to 20 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 140 to 155 days
Farmland classification: Not prime farmland

Map Unit Composition

Nederland and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nederland

Setting

Landform: Alluvial fans, terraces
Landform position (three-dimensional): Base slope, tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Cobbly loamy alluvium

Typical profile

H1 - 0 to 7 inches: very cobbly sandy loam
H2 - 7 to 20 inches: very cobbly sandy clay loam
H3 - 20 to 60 inches: very cobbly sandy loam

Properties and qualities

Slope: 1 to 12 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: Cobbly Foothills (R048AY346CO)

Minor Components

Valmont

Percent of map unit: 20 percent

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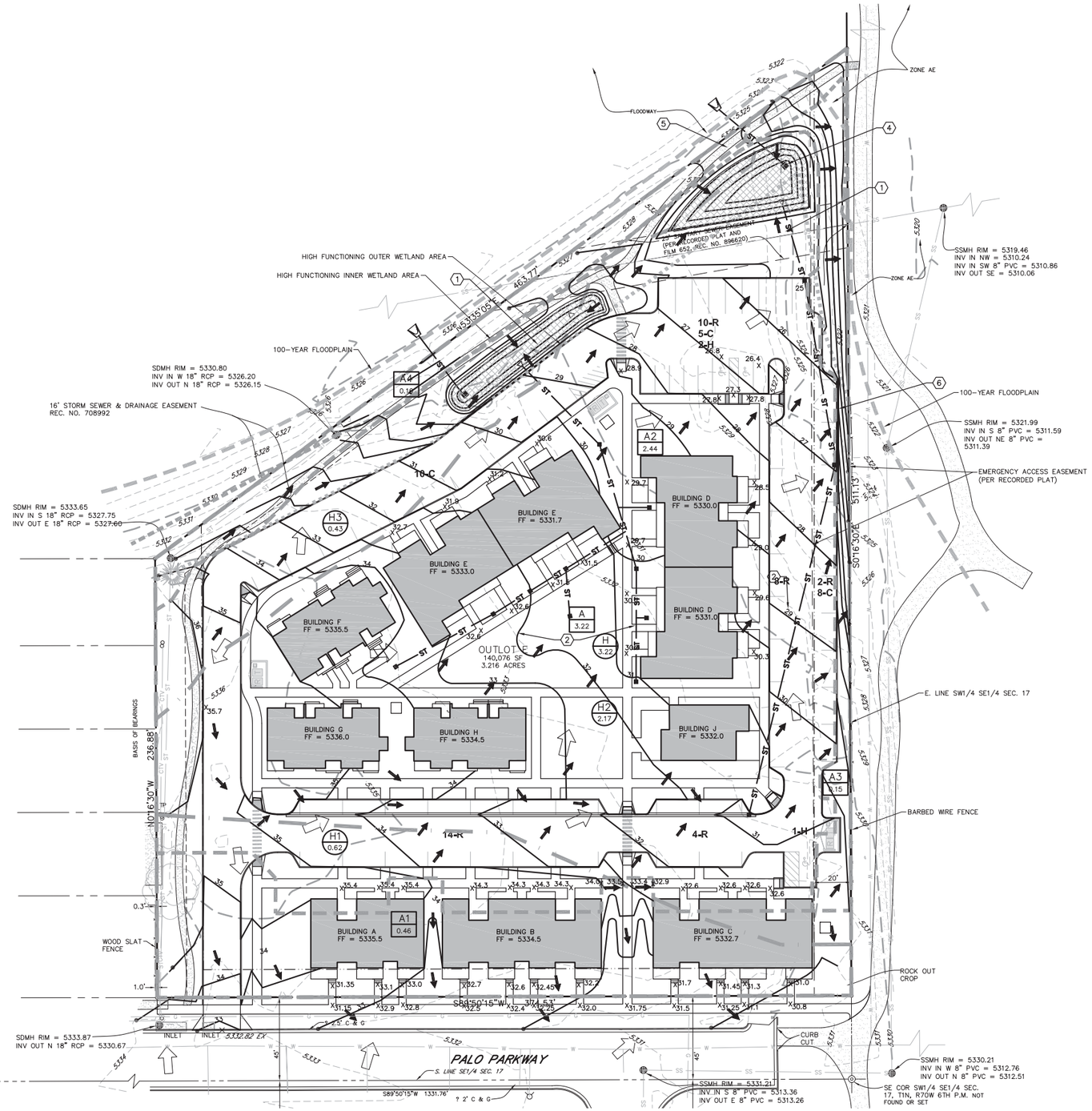


LEGEND

- EXISTING DECIDUOUS TREE
- EXISTING PINE TREE
- 5305 — EXISTING CONTOUR
- 5 — PROPOSED CONTOUR ADD 5300 TO ALL CONTOURS
- POINT WHERE PROPOSED GRADE MEETS EXISTING GRADE
- X 25.8 — PROPOSED SPOT ELEVATION ADD 5200 TO ALL SPOT ELEVATIONS
- X 25.8 — EXISTING SPOT ELEVATION
- HISTORIC SHEET FLOW
- PROPOSED FLOW DIRECTION
- DRAINAGE BASIN BOUNDARY (HISTORIC)
- PROPOSED BASIN BOUNDARY
- H / 1 — SUB-BASIN DESIGNATION (HISTORIC)
- AREA IN ACRES
- A / 1 — PROPOSED SUB-BASIN DESIGNATION
- AREA IN ACRES
- PROPOSED WATER QUALITY FEATURE
- ST — ST — PROPOSED STORM SEWER WITH INLET

KEYED NOTES (1)

1. PROPOSED WATER QUALITY POND.
2. PROPOSED STORM SEWER.
3. PROPOSED BIO SWALE.
4. PROPOSED OUTLET STRUCTURE.
5. PROPOSED EMERGENCY OVERFLOW WEIR.
6. PROPOSED RETAINING WALL. MAXIMUM WALL HEIGHT OF 30"

GRADING NOTES

1. GRADE AWAY FROM BUILDINGS AT A MINIMUM 10% SLOPE IN THE FIRST 10 FEET AT LANDSCAPE AREAS AND AT A MINIMUM 2% SLOPE IN THE FIRST 10 FEET AT IMPERVIOUS AREAS, EXCEPT AS NOTED.
2. TOP OF FOUNDATION ELEVATION SHALL BE SET AT LEAST 8" ABOVE THE PROPOSED GRADING AT THE EXTERIOR OF THE FOUNDATION AT LANDSCAPE AREAS.
3. THE FEMA FLOOD INSURANCE RATE MAP, PANEL 08013C0392J AND PANEL 08013C0411J, DATED DECEMBER 18, 2012, INDICATES THAT PORTIONS OF THE SITE ARE LOCATED WITHIN ZONE AE, AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD.
4. ALL CITY UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF BOULDER STANDARD SPECIFICATIONS.
5. THE LOCATION OF THE ABOVE GROUND UTILITIES SHOWN HEREON ARE BASED ON THE TOPOGRAPHIC SURVEY BY DREXEL, BARREL AND COMPANY, DATED 03/24/15. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SAID SURVEY AND INFORMATION PROVIDED BY OTHERS (WHICH MAY INCLUDE THE UTILITY OWNER OR UTILITY LOCATING SERVICES). SCOTT, COX & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR UTILITY INFORMATION PROVIDED BY OTHERS. SCOTT, COX & ASSOCIATES, INC. RECOMMENDS THAT THE LOCATION OF THE UTILITIES BE FIELD VERIFIED PRIOR TO ANY DIGGING ON, OR ADJACENT TO THE SUBJECT PROPERTY.
6. BENCH MARK ELEVATION TAKEN FROM CITY OF BOULDER BENCHMARK, ID NO. T-440-5-1-1-1, PER DREXEL BARRELL DRAWING B87-81, DATED 3/24/15. ELEVATION = 5333.92 NAVD88 DATUM.
7. A FINAL STORM WATER PLAN AND REPORT IS REQUIRED BY THE CITY OF BOULDER PRIOR TO ISSUANCE OF A BUILDING PERMIT.
8. IF REQUIRED, ALL APPLICABLE CITY AND/OR STATE PERMITS PERTAINING TO THE DISCHARGE OF GROUNDWATER MUST BE OBTAINED PRIOR TO PREPARATION OF BUILDING PERMIT PLANS.

Scale: 1" = 30'
0 15 30 60

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 – 3051
DWG NO. 15257B-2

PALO PARK

Preliminary Grading, Drainage, and Erosion Control Plan

SR-C1.02

BOULDER HOUSING PARTNERS

4525 Palo Parkway, Boulder, CO 80303

STUDIO architecture
1350 Pine st. Suite 1
Boulder, CO 80302
15_005_00
thestudioarchitecture.com
986.929.9130

4525 Palo Parkway, Boulder, CO
80303

SITE REVIEW
Call Up
05/05/2016
4525 Palo Parkway

Travel Demand Management Plan

Palo Park Family Housing

Boulder, Colorado

Prepared for

Boulder Housing Partners
4800 N. Broadway
Boulder, CO 80304

Prepared by

LSC Transportation Consultants, Inc.
1889 York Street
Denver, CO 80206
(303) 333-1105

April 1, 2016
Revised: May 3, 2016
(LSC #150911)

Introduction

This Travel Demand Management Plan has been prepared for the Palo Park Family Housing development in Boulder, Colorado. The site is located north of Palo Parkway and east of 30th Street. The site is currently vacant and is proposed to include nine owned townhome dwelling units and 35 rental dwelling units. A community center, playground, and central park are proposed as resident amenities. Vehicular access to the site is proposed from Palo Parkway. The location of the site with respect to the surrounding land uses and roadway system is shown in Figure 1. The site plan is shown in Figure 2.

Existing Alternate Modes Description

The following existing conditions contribute to the transportation demand management goals of the City of Boulder. The Palo Park Family Housing site is well-positioned to make good use of some of these existing opportunities.

Existing Transit Service

The Regional Transportation District (RTD) is the governing body responsible for fixed-route transit (public transportation) service throughout the Denver metropolitan area, including Boulder. Figure 3 shows the existing bus stops and transit routes in the vicinity of the site, including the following routes with bus stops within a half mile walk from the site:

- 205

Demand-responsive services are available to both seniors and persons with disabilities through Via (formerly Special Transit). Established in 1979, this non-profit provides safe and affordable rides in accessible buses to people with limited mobility. Rides are scheduled in advance, and have a 30-minute pick-up window.

Approximate Scale
Scale: 1"= 600'

Figure 1

Vicinity Map

Palo Park Family Housing TDM Plan (LSC #150911)

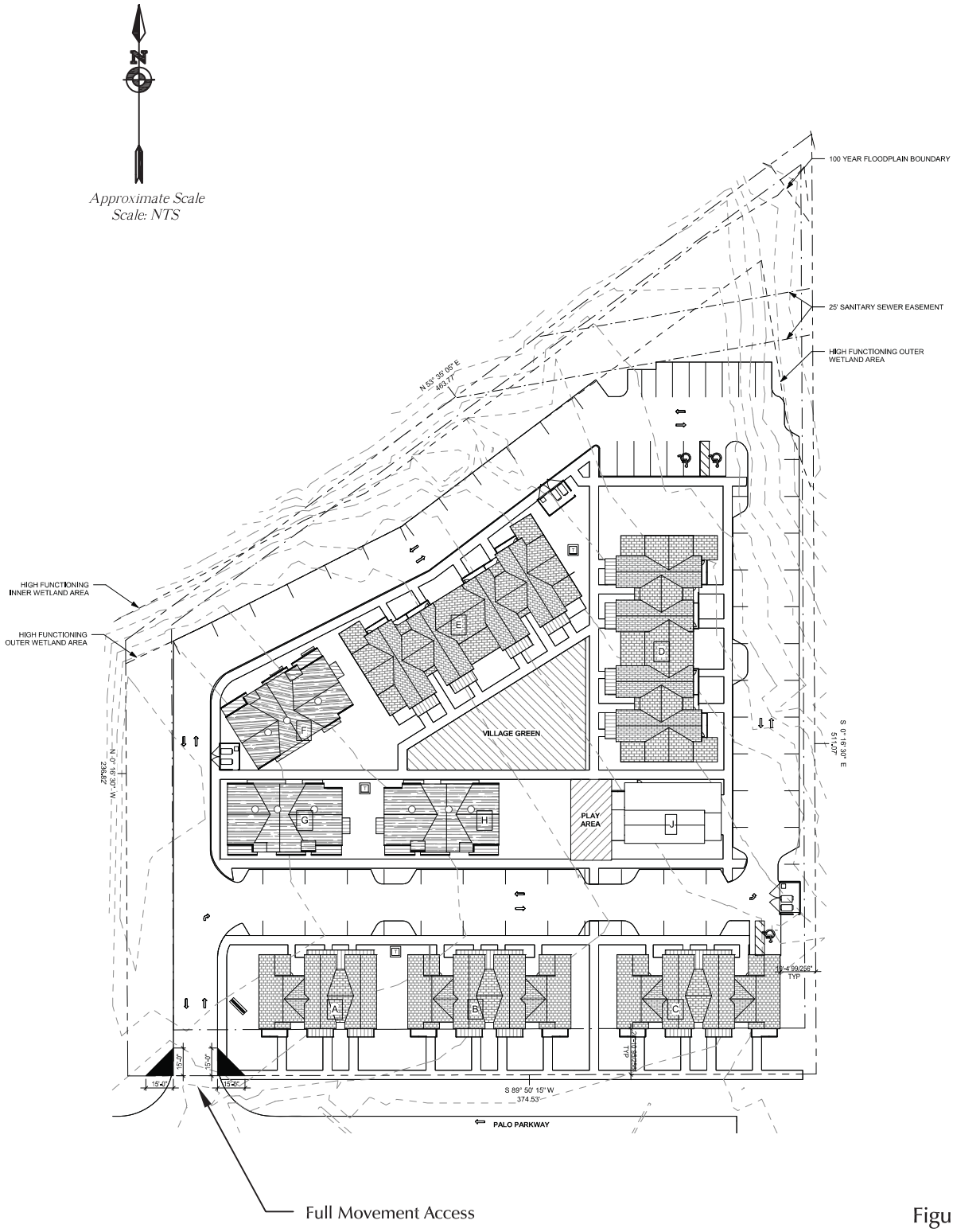
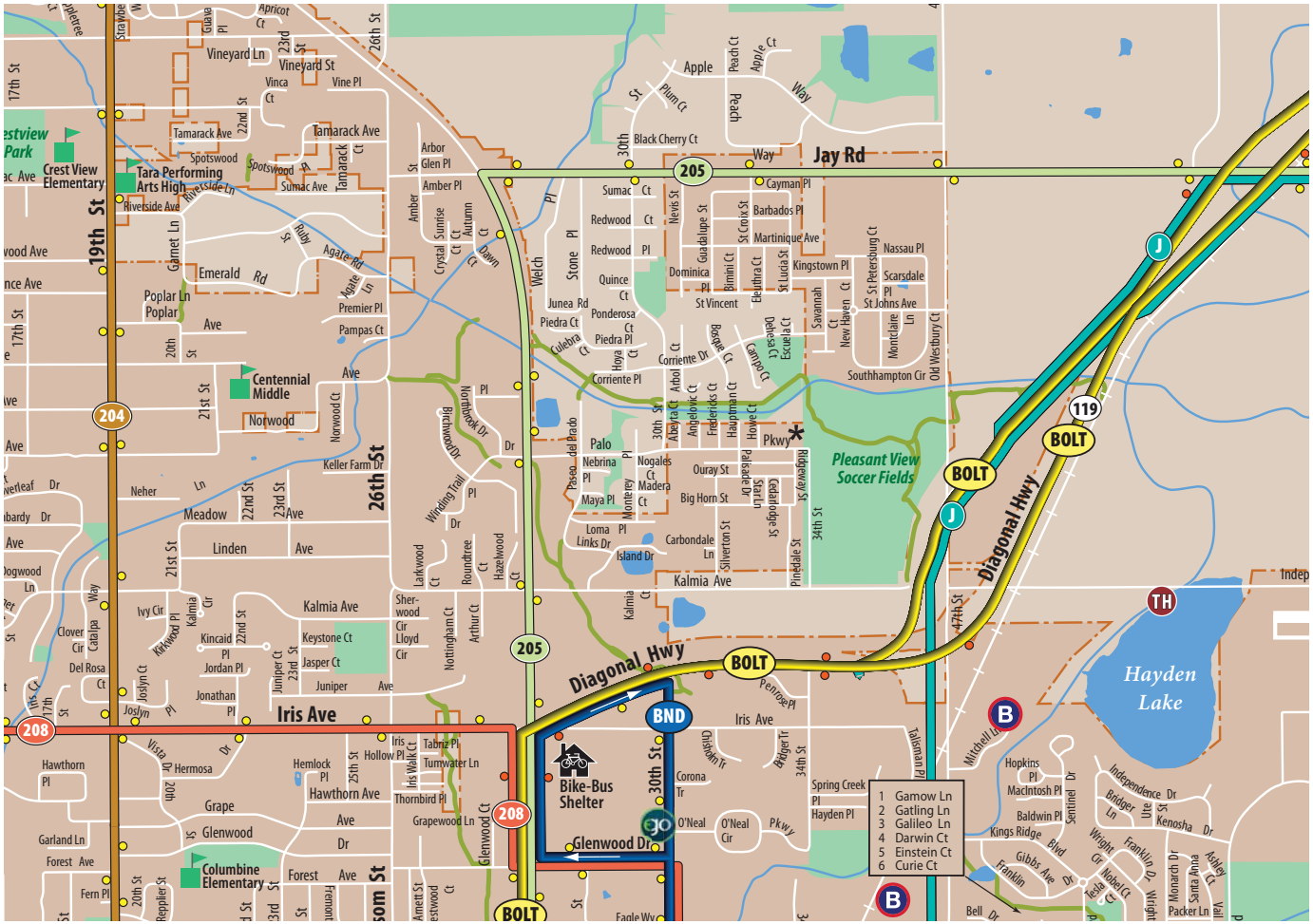


Figure 2

Site Plan

Palo Park Family Housing TDM Plan (LSC #150911)

LSC TRANSPORTATION CONSULTANTS, INC.



* = Site Location

TH = Trail Head

B = B-cycle Location

eGo = eGo Car Share Location

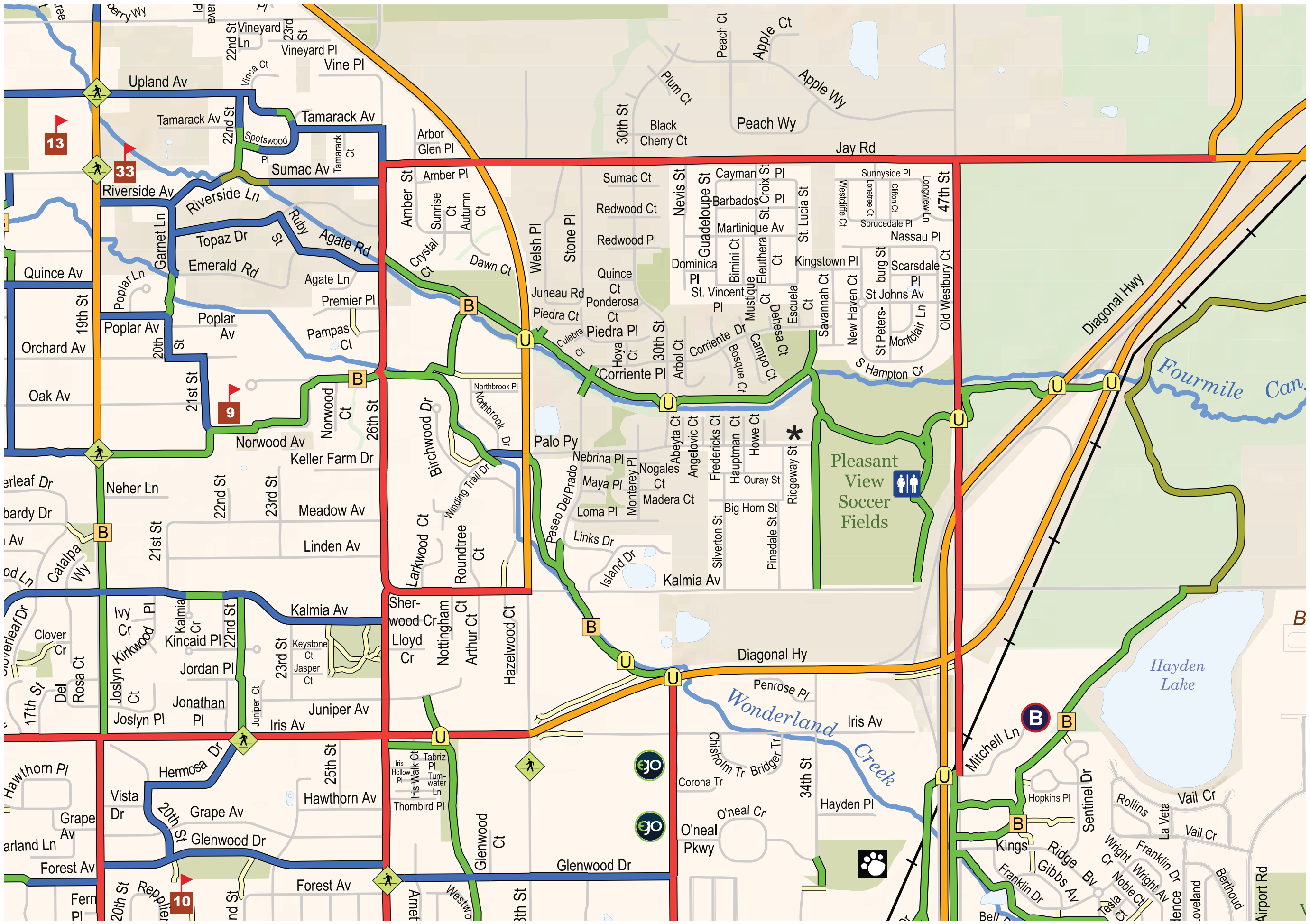
Figure 3

Existing Bus Stops and Transit Routes

Palo Park Family Housing TDM Plan (LSC #150911)

Existing Bicycle and Pedestrian Network

The City of Boulder maintains an extensive bicycle and pedestrian network throughout the City. Figure 4 shows bicycle and pedestrian routes within the vicinity of the site. In addition, many of the streets in the project vicinity have attached or detached sidewalks. The site is well positioned to benefit from this existing network.



B = Bridge
U = Underpass
= Enhanced Pedestrian Crossing
B = B-cycle Location
= eGo Car Share Location
= Bike Shop

* = Site Location

Figure 4

Existing Bike and Pedestrian Routes

Palo Park Family Housing TDM Plan (LSC #150911)

Transportation Demand Management (TDM) Strategy for Single-Family and Multi-Family Residential Units

The City of Boulder's draft residential development toolkit packages are shown below in Table 1. The site is proposed to include nine owned multi-family dwelling units and 35 rental multi-family units. The "core elements" section of the table shows elements required of all new residential developments, including orientation packets, participation in TDM evaluation programs, and pedestrian, bike, and transit enhancements.

Two "package elements" are available under City of Boulder standards, Package A and Package B. Considering Boulder Housing Partners (BHP) typically provides bus passes to residents it is likely that Package A is the most advantageous for the site. Package A includes establishing a NECO pass program, meeting the short-term and long-term bicycle parking requirements, and management of on-street parking where applicable.

Table 2 shows the actions that the Palo Park Family Housing developer intends to take to increase the percentage of alternative travel modes utilized by the site. In addition, BHP maintains partnerships with both eGo Carshare and Boulder Bcycle. These two organizations have indicated they are not prepared to extend their existing networks to the site at this time. BHP is in negotiations with a new Boulder County non-profit called Chain Reaction who is interested in partnering with BHP to provide families and individuals with bikes through an earn-a-bike program.

Table 1
City of Boulder Residential Development Toolkit Packages

	TDM Toolkit Element	Residential Toolkit Packages							
		Single Family ≤10 Units		Single Family 11 or More Units		Multi-Family ≤10 Units		Multi-Family 11 or More Units	
		Pkg A	Pkg B	Pkg A	Pkg B	Pkg A	Pkg B	Pkg A	Pkg B
CORE ELEMENTS	Orientation Packets	✓	✓	✓	✓	✓	✓	✓	✓
	Evaluation	✓	✓	✓	✓	✓	✓	✓	✓
	Pedestrian Enhancements	✓	✓	✓	✓	✓	✓	✓	✓
	Bike Enhancements	✓	✓	✓	✓	✓	✓	✓	✓
	Transit Enhancements	✓	✓	✓	✓	✓	✓	✓	✓
PACKAGE ELEMENTS	Alternative Transportation Subsidy Fund	✓			✓	✓			✓
	Carshare Subsidy		✓		✓		✓		✓
	Bikeshare Subsidy		✓		✓		✓		✓
	NECO Pass Program Participation			✓				✓	
MULTI-FAMILY ELEMENTS	Meet Short-Term Bicycle Parking Code					✓	✓	✓	✓
	Exceed Short-Term Bicycle Parking Code						✓		✓
	Meet Long-Term Bicycle Parking Code					✓	✓	✓	✓
	Exceed Long-Term Bicycle Parking Code						✓		✓
	Managed On-Street Parking					✓	✓	✓	✓
	Unbundled Parking						✓		✓

Table 2
Palo Park Family Housing TDM Plan

TDM Toolkit Element		Actions for Package A
CORE ELEMENTS	Orientation Packets	An orientation packet will be provided to each new resident which includes brochures, maps, and other resources to inform residents of their transportation options. This packet will include RTD bus information, the City of Boulder bicycle and pedestrian map (or similar), and information on special events. This packet will be provided initially by the developer at the time of sale or by a lessor thereafter.
CORE ELEMENTS	Evaluation	Through sales or lease agreement, the site's residents will agree to participate in annual on-line or paper surveys regarding their use and satisfaction with transportation demand management programs. The evaluation is expected to be administered by the City of Boulder using Survey Monkey or similar on-line tools.The developer will secure agreement to participate, with the expectation that 10-20% of residents will actually participate based on typical survey return rates. The City of Boulder will be responsible for data analysis and summarization.
CORE ELEMENTS	Pedestrian Enhancements	Connections are proposed to the Palo Parkway sidewalk and the multi-use paths north and east of the site.
CORE ELEMENTS	Bike Enhancements	The site will have access to the multi-use path north and east of the site.
CORE ELEMENTS	Transit Enhancements	Information about transit service will be provided in the orientation packets, also described above. Boulder Housing Partners will contribute 50% of the cost to install transit amenities such as concrete pad, benches, and bike racks to the existing southbound transit stop at 28th Street to encourage ridership. Boulder Housing Partners' contribution to the City for these costs is not to exceed $7,500.
PACKAGE ELEMENTS	NECO Pass Program Participation	The site proposes to participate in the NECO pass program and will provide bus passes to residents for three years.
PACKAGE ELEMENTS	Meet Short-Term Bicycle Parking Requirement	The site is proposing 34 short-term bicycle parking spaces for residents which exceed the requirement of 22 short-term bicycle parking spaces.
PACKAGE ELEMENTS	Meet Long-Term Bicycle Parking Requirement	The site is proposing 66 long-term secure and covered bicycle parking spaces for residents.
PACKAGE ELEMENTS	Managed On-Street Parking	The site includes sufficient on-site parking to meet the estimated parking demand.

LSC TRANSPORTATION CONSULTANTS, INC.

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May 3, 2016

Ms. Betsey Martens
Boulder Housing Partners
4800 N. Broadway
Boulder, CO 80304

Re: Palo Park Family Housing
Boulder, CO
(LSC #150911)

Dear Ms. Martens:

In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact analysis for the proposed Palo Park Family Housing development. As shown on Figure 1, the site located at 4525 Palo Parkway in Boulder, Colorado.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; an existing travel time study; existing and projected queue lengths; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts or impacts from growth in background traffic.

PROPOSED LAND USE AND ACCESS

The site is currently vacant and is proposed to include nine owned townhome dwelling units and 35 rental apartment units. Vehicular access to the site is proposed from Palo Parkway. The conceptual site plan is shown in Figure 2. The driveway on Palo Parkway was offset to the west of Ridgeway Street to discourage future residents from passing through the Northfield Commons neighborhood via Ridgeway Street.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **Palo Parkway** is an east-west, two-lane roadway south of the site. It is classified as a collector to the west of 30th Street. The intersection with 30th Street is stop-sign controlled on two legs and the intersection with 28th Street is signalized with auxiliary turn lanes. The posted speed limit in the vicinity of the site is 25 mph. Portions of Palo Parkway are in unincorporated Boulder County.

- **30th Street** is a north-south, two-lane collector roadway west of the site. The intersection with Palo Parkway is stop-sign controlled on two legs. The posted speed limit in the vicinity of the site is 25 mph.

- **Kalmia Avenue** is an east-west, two-lane collector roadway south of the site. The intersection with 28th Street is signalized with auxiliary turn lanes. The posted speed limit in the vicinity of the site is 30 mph.

- **Paonia Street** is a north-south, two-lane residential roadway connecting Palo Parkway with Kalmia Avenue. Paonia Street is stop-sign controlled at both Palo Parkway and Kalmia Avenue.

- **28th Street (US 36)** is a north-south, two-lane principal arterial west of the site. It is classified as NR-A (Non-Rural Principal Highway) by CDOT. The intersections with Palo Parkway and Kalmia Avenue are signalized with auxiliary turn lanes. The posted speed limit in the vicinity of the site is 45 mph.

Traffic Volumes and Lane Geometry

Figure 3a shows the existing lane geometries, traffic controls, posted speed limits, and weekday peak-hour traffic volumes in the site's vicinity on a typical weekday. Figure 3b shows the average weekday daily traffic in the site's vicinity. The weekday peak-hour traffic volumes and daily traffic counts are from the attached traffic counts conducted by Counter Measures in February, 2016. Table 1 shows the observed queue lengths for critical movements at the Palo Parkway and Kalmia Avenue intersections with 28th Street.

Travel Time Study

A travel time study was completed to help determine which path drivers may take to and from the site. Figure 3c shows the various paths that were field measured in each direction and Table 2 shows the detailed travel time information.

The data shows vehicles entering the site in both peak-hours will likely experience less travel time by traveling north on 28th Street and then east on Palo Parkway. Vehicles exiting the site will have slightly more travel time in the morning peak-hour and significantly more travel time in the afternoon peak-hour by traveling west on Palo Parkway and then south on 28th Street. The directional distribution of site-generated trips discussed later in this report is based on these travel time findings.

2020 and 2035 Background Traffic

Figure 4 shows the estimated 2020 background traffic and Figure 5 shows the estimated 2035 background traffic. The projected 2020 and 2035 background traffic volumes are based on

28th Street traffic growing at an annual rate of 0.5 percent from 2016 to 2020 and at 0.25 percent from 2020 to 2035. This assumption is generally consistent with the *Harper Hollow (Kalmia Estates) TIA*, the *Wonderland Creek Townhomes TIA*, and historic data available on the City of Boulder website. Both the 2020 and 2035 background traffic estimates assume buildout of the Harper Hollow (Kalmia Estates) development located along Paonia Street and the Wonderland Creek Townhomes development located on Paseo Del Prado Street.

Existing, 2020, and 2035 Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for signalized and unsignalized intersections.

The intersections in Figures 3a, 4, and 5 were analyzed as appropriate to determine the existing, 2020, and 2035 background levels of service using Synchro Version 8. The signal timings used in the analysis were provided by City staff. Table 3 shows the level of service analysis results. The level of service reports are attached.

- **28th Street (US 36)/Palo Parkway:** This signalized intersection currently operates at an overall LOS "B" during the morning peak-hour and LOS "A" during the afternoon peak-hour with all individual movements operating at LOS "D" or better and is expected to continue to do so through 2035.

- **28th Street (US 36)/Kalmia Avenue**: This signalized intersection currently operates at an overall LOS "A" during both morning and afternoon peak-hours with all individual movements operating at LOS "D" or better and is expected to continue to do so through 2035.

- **30th Street/Palo Parkway:** All movements at this stop-sign controlled intersection currently operate at LOS "A" during both morning and afternoon peak-hours and are expected to continue to do so through 2035.

- **Kalmia Avenue/Paonia Street:** All movements at this stop-sign controlled intersection currently operate at LOS "A" during both morning and afternoon peak-hours and are expected to continue to do so through 2035.

ALTERNATIVE TRAVEL MODES

To be conservative, no alternate travel mode reduction is assumed in this analysis. The site is well positioned to take advantage of the City's extensive network of bike lanes and bike routes but less so for the existing transit routes and bus stops in the area. A separate Travel Demand Management (TDM) Plan has been completed.

TRIP GENERATION

Table 4 shows the estimated typical weekday, morning peak-hour, and afternoon peak-hour trip generation for the site based on the rates from *Trip Generation, 9th Edition,* 2012, by the Institute of Transportation Engineers (ITE).

The proposed land use on the site is projected to generate about 285 new vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about five vehicles would enter and about 17 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:30 p.m., about 17 vehicles would enter and about ten vehicles would exit the site.

TRIP DISTRIBUTION

Figure 6 shows the estimated directional distribution of the site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; the site's proposed land use; and the completion of a travel time study. Approximately 75 percent of site traffic is expected to be oriented to/from the south on 28th Street (US 36). Approximately 25 percent of these trips are expected to use Paonia Street (more heavily) and/or Pinedale Street/Ridgeway Street (less heavily) when entering the site. About 40 percent of these trips are expected to use these alternative routes in the morning peak-hour and about 60 to 65 percent during the afternoon peak-hour when exiting the site.

TRIP ASSIGNMENT

Figure 7 shows the estimated site-generated traffic volumes which are the directional distribution percentages (from Figure 6) applied to the trip generation estimate (from Table 4).

2020 and 2035 TOTAL TRAFFIC

Figure 8 shows the 2020 total traffic which is the sum of the 2020 background traffic volumes (from Figure 4) and the site-generated traffic volumes (from Figure 7). Figure 8 also shows the recommended 2020 lane geometry and traffic control.

Figure 9 shows the 2035 total traffic which is the sum of 2035 background traffic volumes (from Figure 5) and the site-generated traffic volumes (from Figure 7). Figure 9 also shows the recommended 2035 lane geometry and traffic control.

PROJECTED LEVELS OF SERVICE

The intersections in Figures 8 and 9 were analyzed to determine the 2020 and 2035 total levels of service. Table 3 shows the level of service analysis results. The level of service reports are attached.

- **28th Street (US 36)/Palo Parkway:** In 2020, this signalized intersection is expected to operate at LOS "B" during the morning peak-hour and LOS "A" during the afternoon peak-hour with all individual movements operating at LOS "D" or better and is expected to continue to do so through 2035, with or without the addition of site traffic.

- **28th Street (US 36)/Kalmia Avenue:** In 2020, this signalized intersection is expected to operate at LOS "A" during both morning and afternoon peak-hours with all individual movements operating at LOS "D" or better and is expected to continue to do so through 2035, with or without the addition of site traffic.

- **30th Street/Palo Parkway:** All movements at this unsignalized intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2035, with or without the addition of site traffic.

- **Kalmia Avenue/Paonia Street:** All movements at this unsignalized intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2035, with or without the addition of site traffic.

- **Palo Parkway/Site Access:** All movements at this unsignalized intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2035.

QUEUE LENGTHS

Table 1 shows the existing peak-hour queue lengths observed for critical movements during each traffic signal cycle at the intersections of 28th Street (US 36) with Palo Parkway and Kalmia Avenue. The data shows the southbound left and westbound through and right movements have minimal queuing and the westbound left queue length at each intersection peaked at seven vehicles in both the morning and afternoon peak-hour. Table 5 shows these observed queue lengths along with the 95th percentile queue lengths predicted by the existing condition capacity analyses. Adjustment factors were developed to relate the theoretical queue length to an actual field queue length. These factors were used to convert the estimated 2020 and 2035 queue lengths to actual field queue lengths. Table 5 shows both left-turn movements onto 28th Street (US 36) from Palo Parkway and Kalmia Avenue are estimated to typically peak at around eight vehicles. The typical peak queue lengths can be expected to be slightly less or more than eight vehicles.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

1. The site is projected to generate about 285 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, about five vehicles would enter and about 17 vehicles would exit the site. During the afternoon peak-hour, about 17 vehicles would enter and about ten vehicles would exit.

Projected Levels of Service

2. The signalized intersection of 28th Street (US 36)/Palo Parkway is expected to operate at an overall LOS "B" in the morning peak-hour and LOS "A" in the afternoon peak-hour with all individual movements operating at LOS "D" or better through 2035, with or without the addition of site traffic.

3. The signalized intersection of 28th Street (US 36)/Kalmia Avenue is expected to operate at an overall LOS "A" in both morning and afternoon peak-hours with all individual movements operating at LOS "D" or better through 2035, with or without the addition of site traffic.

4. All movements at the unsignalized intersections of 30th Street/Palo Parkway, Kalmia Avenue/Paonia Street, and Palo Parkway/Site Access are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2035.

Conclusions

5. A limited amount of site-generated traffic is expected to use Paonia Street with a smaller amount expected to use Ridgeway Street/Pinedale Street. The volume using Paonia Street is expected to be about five or six vehicles during each peak-hour and the volume using Ridgeway Street/Pinedale Street is expected to be about one or two vehicles during each peak-hour. These estimates were based on a travel time study which suggested a higher use of these alternative routes by traffic exiting the site than by traffic entering the site.

6. The impact of the Palo Parkway Family Housing development can be accommodated by the existing roadway network with the recommended improvements below.

Recommended Improvements

7. The site access location on Palo Parkway should be offset to the west from Ridgeway Street to discourage future residents from passing through the Northfield Commons neighborhood via Ridgeway Street.

8. The site access approach to Palo Parkway should be stop-sign controlled.

* * * * *

We trust this information will assist you in planning for the proposed Palo Park Family Housing development.

Respectfully submitted,

LSC Transportation Consultants, Inc.

COLORADO LICENSED
CHRISTOPHER S. MCGRANAHAN
39018
PROFESSIONAL ENGINEER

By: _____
Christopher S. McGranahan, P.E., PTOE
Principal

5-3-16

CSM/wc

Enclosure: Tables 1 - 5
Figures 1 - 9
Traffic Counts
Level of Service Definitions
LOS Printouts
Queuing Reports

Z:\LSC\Projects\2015\150911-PaloPark-TIA&TDM\May-2016\PaloParkTIA-050316.wpd

Table 1 (Page 1 of 2)
Existing Observed Peak-Hour Queue Lengths (1)
Palo Park Family Housing
LSC #150911; May, 2016

28th Street/Palo Parkway

7:30 AM - 8:30 AM						5:00 PM - 6:00 PM					
	Queued Vehicles		Queued Vehicles				Queued Vehicles		Queued Vehicles		
Time	SBL	Time	WBL	WBT	WBR	Time	SBL	Time	WBL	WBT	WBR
07:54 AM	1	07:30 AM	3	0	0	05:05 PM	1	05:00 PM	3	0	0
08:14 AM	1	07:32 AM	3	0	1	05:29 PM	1	05:04 PM	4	0	0
08:21 AM	1	07:34 AM	2	0	0	05:37 PM	1	05:08 PM	3	0	0
08:26 AM	1	07:36 AM	7	0	0	05:47 PM	2	05:10 PM	3	0	0
		07:38 AM	7	0	0	05:55 PM	1	05:12 PM	5	0	0
		07:39 AM	4	0	0	05:57 PM	1	05:14 PM	6	0	0
		07:41 AM	8	0	0	05:59 PM	2	05:16 PM	4	0	0
		07:43 AM	5	0	0			05:18 PM	1	0	2
		07:45 AM	4	0	0			05:20 PM	3	0	1
		07:46 AM	5	0	0			05:22 PM	3	0	0
		07:48 AM	4	0	0			05:24 PM	7	0	0
		07:50 AM	3	0	0			05:26 PM	1	0	1
		07:52 AM	2	0	0			05:28 PM	1	0	0
		07:54 AM	6	0	0			05:30 PM	2	0	0
		07:55 AM	5	0	0			05:32 PM	4	0	0
		07:57 AM	4	0	0			05:34 PM	4	0	0
		07:59 AM	6	0	0			05:36 PM	2	0	1
		08:01 AM	6	0	1			05:38 PM	3	0	1
		08:03 AM	4	0	0			05:40 PM	3	0	0
		08:05 AM	3	0	0			05:42 PM	2	0	0
		08:06 AM	2	0	0			05:44 PM	7	0	0
		08:08 AM	3	0	0			05:46 PM	1	0	0
		08:10 AM	7	0	0			05:48 PM	5	0	1
		08:12 AM	6	0	0			05:50 PM	1	0	0
		08:14 AM	1	0	0			05:52 PM	4	0	0
		08:15 AM	3	0	0			05:54 PM	4	0	0
		08:17 AM	7	0	0			05:56 PM	3	0	0
		08:19 AM	1	0	0			05:58 PM	3	0	0
		08:21 AM	1	0	0						
		08:22 AM	4	0	0						
		08:24 AM	4	0	0						
		08:26 AM	2	0	0						
		08:28 AM	3	0	0						
		08:29 AM	1	0	0						

(1) Each row represents the maximum observed queue length during each traffic signal cycle.

Table 1 (Page 2 of 2)
Existing Observed Peak-Hour Queue Lengths [1]
Palo Park Family Housing
LSC #150911; May, 2016

28th Street/Kalmia Avenue

7:30 AM - 8:30 AM					5:00 PM - 6:00 PM				
	Queued Vehicles		Queued Vehicles			Queued Vehicles		Queued Vehicles	
Time	SBL	Time	WBL	WBT/WBR	Time	SBL	Time	WBL	WBT/WBR
		07:31 AM	4	1			05:01 PM	3	0
		07:33 AM	3	0			05:03 PM	3	0
		07:35 AM	2	0			05:05 PM	4	0
		07:37 AM	2	0			05:07 PM	3	0
		07:39 AM	6	0			05:09 PM	2	0
		07:40 AM	3	1			05:11 PM	6	0
		07:42 AM	7	0			05:13 PM	3	0
		07:44 AM	3	2			05:15 PM	1	0
		07:46 AM	5	0			05:17 PM	2	0
		07:47 AM	2	1			05:19 PM	6	0
		07:49 AM	6	3			05:21 PM	3	0
		07:51 AM	4	0			05:23 PM	6	0
		07:53 AM	5	0			05:25 PM	4	0
		07:55 AM	1	1			05:28 PM	4	0
		07:56 AM	3	0			05:29 PM	2	0
		07:58 AM	6	1			05:31 PM	1	1
		08:00 AM	6	0			05:34 PM	2	0
		08:02 AM	3	0			05:37 PM	1	0
		08:04 AM	2	0			05:39 PM	7	0
		08:05 AM	3	0			05:41 PM	6	0
		08:07 AM	5	0			05:43 PM	2	1
		08:09 AM	2	0			05:45 PM	5	0
		08:11 AM	4	0			05:47 PM	3	0
		08:13 AM	3	0			05:49 PM	5	0
		08:14 AM	4	0			05:51 PM	1	1
		08:16 AM	5	0			05:53 PM	1	0
		08:18 AM	2	0			05:56 PM	4	0
		08:20 AM	1	0			05:57 PM	3	0
		08:22 AM	2	0			06:00 PM	1	0
		08:23 AM	5	1					
		08:25 AM	6	1					
		08:27 AM	0	2					
		08:29 AM	3	1					
		08:31 AM	4	0					

(1) Each row represents the maximum observed queue length during each traffic signal cycle.

Table 2
Travel Time Study
Palo Parkway Family Housing
Boulder, CO
LSC #150911; May, 2016

Option 1

		6:00 - 8:30 AM Via US 36 (28th Street) and Palo Parkway				4:00 - 6:00 PM Via US 36 (28th Street) and Palo Parkway			
Starting Point	End Point	Date	Time	Drive Times - 5 Each Way	Average Drive Time	Date	Time	Drive Times - 5 Each Way	Average Drive Time
Entering Trips									
28th Street south of Kalmia Ave.	Palo Park-way/Site Access	02/16/16	06:35 AM	103 sec.		02/16/16	04:01 PM	104 sec.	
		02/16/16	06:54 AM	108 sec.		02/16/16	04:18 PM	110 sec.	
		02/16/16	07:13 AM	112 sec.	109 sec.	02/16/16	04:38 PM	104 sec.	107 sec.
		02/16/16	07:35 AM	111 sec.		02/16/16	05:00 PM	108 sec.	
		02/16/16	07:59 AM	111 sec.		02/16/16	05:19 PM	111 sec.	
Exiting Trips									
Palo Park-way/Site Access	28th Street south of Kalmia Ave.	02/16/16	06:40 AM	122 sec.		02/16/16	04:19 PM	183 sec.	
		02/16/16	06:57 AM	164 sec.		02/16/16	04:28 PM	195 sec.	
		02/16/16	07:16 AM	132 sec.	137 sec.	02/16/16	04:36 PM	160 sec.	186 sec.
		02/16/16	07:38 AM	133 sec.		02/16/16	04:42 PM	196 sec.	
		02/16/16	08:03 AM	135 sec.		02/16/16	04:49 PM	194 sec.	

Option 2

		6:00 - 8:30 AM Via US 36, Kalmia Avenue Paonia Street, and Palo Parkway				4:00 - 6:00 PM Via US 36, Kalmia Avenue Paonia Street, and Palo Parkway			
Starting Point	End Point	Date	Time	Drive Times - 5 Each Way	Average Drive Time	Date	Time	Drive Times - 5 Each Way	Average Drive Time
Entering Trips									
28th Street south of Kalmia Ave.	Palo Park-way/Site Access	02/16/16	06:30 AM	128 sec.		02/16/16	04:05 PM	116 sec.	
		02/16/16	07:01 AM	120 sec.		02/16/16	04:25 PM	123 sec.	
		02/16/16	07:19 AM	125 sec.	123 sec.	02/16/16	04:45 PM	123 sec.	120 sec.
		02/16/16	07:43 AM	123 sec.		02/16/16	05:06 PM	117 sec.	
		02/16/16	08:06 AM	121 sec.		02/16/16	05:24 PM	120 sec.	
Exiting Trips									
Palo Park-way/Site Access	28th Street south of Kalmia Ave.	02/16/16	06:35 AM	120 sec.		02/16/16	04:08 PM	118 sec.	
		02/16/16	07:03 AM	115 sec.		02/16/16	04:27 PM	121 sec.	
		02/16/16	07:22 AM	113 sec.	117 sec.	02/16/16	04:48 PM	123 sec.	121 sec.
		02/16/16	07:46 AM	118 sec.		02/16/16	05:09 PM	120 sec.	
		02/16/16	08:09 AM	121 sec.		02/16/16	05:27 PM	121 sec.	

Option 3

		6:00 - 8:30 AM Via US 36, Kalmia Avenue and Pinedale Street/Ridgeway Street				4:00 - 6:00 PM Via US 36, Kalmia Avenue and Pinedale Street/Ridgeway Street			
Starting Point	End Point	Date	Time	Drive Times - 5 Each Way	Average Drive Time	Date	Time	Drive Times - 5 Each Way	Average Drive Time
Entering Trips									
28th Street south of Kalmia Ave.	Palo Park-way/Site Access	02/16/16	06:49 AM	126 sec.		02/16/16	04:12 PM	118 sec.	
		02/16/16	07:06 AM	120 sec.		02/16/16	04:31 PM	123 sec.	
		02/16/16	07:24 AM	125 sec.	125 sec.	02/16/16	04:52 PM	122 sec.	121 sec.
		02/16/16	07:50 AM	123 sec.		02/16/16	05:13 PM	119 sec.	
		02/16/16	08:15 AM	133 sec.		02/16/16	05:30 PM	121 sec.	
Exiting Trips									
Palo Park-way/Site Access	28th Street south of Kalmia Ave.	02/16/16	06:52 AM	118 sec.		02/16/16	04:14 PM	123 sec.	
		02/16/16	07:10 AM	123 sec.		02/16/16	04:34 PM	119 sec.	
		02/16/16	07:28 AM	122 sec.	121 sec.	02/16/16	04:56 PM	119 sec.	119 sec.
		02/16/16	07:55 AM	119 sec.		02/16/16	05:16 PM	112 sec.	
		02/16/16	08:21 AM	121 sec.		02/16/16	05:33 PM	120 sec.	

Table 3 (1)
Intersection Levels of Service Analysis
Palo Park Family Housing
Boulder, Colorado
LSC #150911; May, 2016

		Existing Traffic				2020 Background Traffic				2020 Total Traffic				2035 Background Traffic				2035 Total Traffic			
Intersection Location	Traffic Control	Level of Service	Move-ment Delay	Level of Service	Move-ment Delay	Level of Service	Move-ment Delay	Level of Service	Move-ment Delay	Level of Service	Move-ment Delay	Level of Service	Move-ment Delay	Level of Service	Move-ment Delay	Level of Service	Move-ment Delay	Level of Service	Move-ment Delay	Level of Service	Move-ment Delay
		AM		PM		AM		PM		AM		PM		AM		PM		AM		PM	
28th Street/Palo Parkway	Signalized																				
EB Left		C	33.2	D	41.6	C	32.8	D	41.3	C	32.6	D	41.2	C	32.9	D	41.4	C	32.7	D	41.2
EB Through		C	32.9	A	0.0	C	32.5	D	40.8	C	32.3	D	40.7	C	32.5	D	40.8	C	32.2	D	40.7
EB Right		C	34.8	D	42.9	C	34.4	D	42.5	C	34.1	D	42.3	C	34.5	D	42.7	C	34.2	D	42.5
WB Left		D	40.6	D	46.4	D	40.7	D	46.5	D	40.8	D	46.5	D	40.7	D	46.5	D	40.8	D	46.5
WB Through		C	33.0	A	0.0	C	32.6	D	40.8	C	32.3	D	40.7	C	32.5	D	40.8	C	32.3	D	40.7
WB Right		C	33.4	D	41.5	C	33.0	D	41.3	C	32.8	D	41.2	C	33.0	D	41.2	C	32.7	D	41.2
NB Left		A	7.5	A	1.4	A	8.9	A	1.6	A	9.4	A	1.6	B	10.7	A	1.8	B	11.3	A	1.8
NB Through		A	0.5	A	2.3	A	0.7	A	2.5	A	0.8	A	2.5	A	0.8	A	2.8	A	0.8	A	2.9
NB Right		A	0.1	A	0.2	A	0.1	A	0.2	A	0.1	A	0.2	A	0.1	A	0.2	A	0.1	A	0.2
SB Left		A	3.9	A	2.3	A	4.3	A	2.6	A	4.5	A	2.6	A	4.3	A	2.6	A	4.5	A	2.7
SB Through		B	11.8	A	4.4	B	13.1	A	4.8	B	13.7	A	4.9	B	14.3	A	5.0	B	15.0	A	5.1
SB Right		A	3.9	A	2.1	A	4.2	A	2.3	A	4.4	A	2.4	A	4.2	A	2.3	A	4.4	A	2.4
Entire Intersection Delay (sec /veh)		12.9		6.0		13.3		6.4		13.8		6.5		14.0		6.7		14.4		6.7	
Entire Intersection LOS		B		A		B		A		B		A		B		A		B		A	
28th Street/Kalmia Avenue	Signalized																				
EB Left		C	31.2	D	40.3	C	30.9	D	40.2	C	30.8	D	40.0	C	31.2	D	40.4	C	31.1	D	40.2
EB Through/Right		C	33.2	D	40.4	C	32.7	D	39.9	C	32.5	D	39.7	C	32.8	D	40.1	C	32.6	D	39.9
WB Left		D	43.7	D	48.5	D	44.6	D	48.6	D	45.1	D	48.7	D	44.1	D	48.5	D	44.6	D	48.6
WB Through/Right		C	30.3	D	38.1	C	30.0	D	37.8	C	29.8	D	37.7	C	30.2	D	38.0	C	30.0	D	37.8
NB Left		A	8.3	A	5.6	A	9.1	A	6.0	A	9.4	A	6.1	A	8.9	A	5.9	A	9.1	A	6.0
NB Through		A	7.2	A	6.6	A	8.0	A	7.1	A	8.2	A	7.3	A	7.8	A	7.0	A	7.9	A	7.2
NB Right		A	6.5	A	4.9	A	7.0	A	5.3	A	7.2	A	5.4	A	6.9	A	5.1	A	7.0	A	5.3
SB Left		A	0.2	A	1.7	A	0.4	A	2.0	A	0.4	A	2.1	A	0.4	A	2.0	A	0.4	A	2.1
SB Through		A	1.1	A	0.6	A	1.1	A	0.6	A	1.1	A	0.6	A	1.1	A	0.6	A	1.1	A	0.6
SB Right		A	1.1	A	0.6	A	1.1	A	0.6	A	1.2	A	0.6	A	1.1	A	0.6	A	1.1	A	0.6
Entire Intersection Delay (sec /veh)		8.5		8.5		8.9		8.9		9.1		9.1		8.7		8.8		8.9		8.9	
Entire Intersection LOS		A		A		A		A		A		A		A		A		A		A	
30th Street/Palo Parkway	TWSC																				
EB Approach		A	7.4	A	7.4	A	7.4	A	7.4	A	7.4	A	7.4	A	7.4	A	7.4	A	7.5	A	7.4
SB Approach		A	9.0	A	9.1	A	9.1	A	9.2	A	9.2	A	9.4	A	9.2	A	9.3	A	9.3	A	9.4
Critical Movement Delay		9.0		9.1		9.1		9.2		9.2		9.4		9.2		9.3		9.3		9.4	
Kalmia Avenue/Paonia Street	TWSC																				
EB Approach		A	7.4	A	7.4	A	7.4	A	7.4	A	7.4	A	7.4	A	7.4	A	7.4	A	7.4	A	7.4
SB Approach		A	8.8	A	8.8	A	8.9	A	8.9	A	8.9	A	8.9	A	8.8	A	8.7	A	8.8	A	8.8
Critical Movement Delay		8.8		8.8		8.9		8.9		8.9		8.9		8.8		8.7		8.8		8.8	
Palo Parkway/Site Access	TWSC																				
EB Approach		--	--	--	--	--	--	--	--	A	7.3	A	7.3	--	--	--	--	A	7.3	A	7.3
SB Approach		--	--	--	--	--	--	--	--	A	8.5	A	8.5	--	--	--	--	A	8.5	A	8.5
Critical Movement Delay		--	--	--	--	--	--	--	--	8.5		8.5		--	--	--	--	8.5		8.5	

Note:
(1) Using 2010 *Highway Capacity Manual* (HCM) methodology and Level of Service (LOS) definitions.

Table 4
ESTIMATED TRAFFIC GENERATION
Palo Park Family Housing
Boulder, CO
LSC #150911; May, 2016

		Trip Generation Rates[1]					Vehicle - Trips Generated				
		Average	AM Peak Hour		PM Peak Hour		Average	AM Peak Hour		PM Peak - Hour	
Trip Generating Category	Quantity	Weekday	In	Out	In	Out	Weekday	In	Out	In	Out
Apartments [2]	35 DU [3]	6.65	0.102	0.408	0.403	0.217	233	4	14	14	8
Townhomes [4]	9 DU	5.81	0.075	0.365	0.348	0.172	52	1	3	3	2
						Total Trips =	**285**	**5**	**17**	**17**	**10**
						Alternative Travel Mode Reduction [5]	0	0	0	0	0
						Net Total Trips =	**285**	**5**	**17**	**17**	**10**

Notes:
(1) Source: *Trip Generation*, Institute of Transportation Engineers, 9th Edition, 2012.
(2) ITE Land Use No. 220 - Apartments
(3) DU = Dwelling Units
(4) ITE Land Use No. 230 - Residential Condominium/Townhouse
(5) A separate Travel Demand Management (TDM) Plan has been completed. To be conservative, the traffic study assumes no alternative travel mode reduction.

Table 5
Projected Queue Lengths (1)
Palo Park Family Housing
LSC #150911; May, 2016

	Existing						2020 Total				2035 Total			
	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour		PM Peak-Hour	
	95th Percentile Queue Length from Capacity Analysis	Observed in Field	Adjustment Factor to Match Field Observations	95th Percentile Queue Length from Capacity Analysis	Observed in Field	Adjustment Factor to Match Field Observations	95th Percentile Queue Length from Capacity Analysis	Adjusted for Field Conditions	95th Percentile Queue Length from Capacity Analysis	Adjusted for Field Conditions	95th Percentile Queue Length from Capacity Analysis	Adjusted for Field Conditions	95th Percentile Queue Length from Capacity Analysis	Adjusted for Field Conditions
28th Street (US 36)/ Palo Parkway	7.5	7.0	0.93	5.2	7.0	1.35	8.2	7.6	5.6	7.6	8.2	7.6	5.6	7.6
28th Street (US 36)/ Kalmia Avenue	6.9	7.0	1.01	5.7	7.0	1.23	7.7	7.8	6.4	7.9	7.5	7.6	6.2	7.6

(1) All queue lengths are given in number of vehicles.

Approximate Scale
Scale: 1"= 600'

LSC TRANSPORTATION CONSULTANTS, INC.

Figure 1

Vicinity Map

Palo Park Family Housing (LSC #150911)

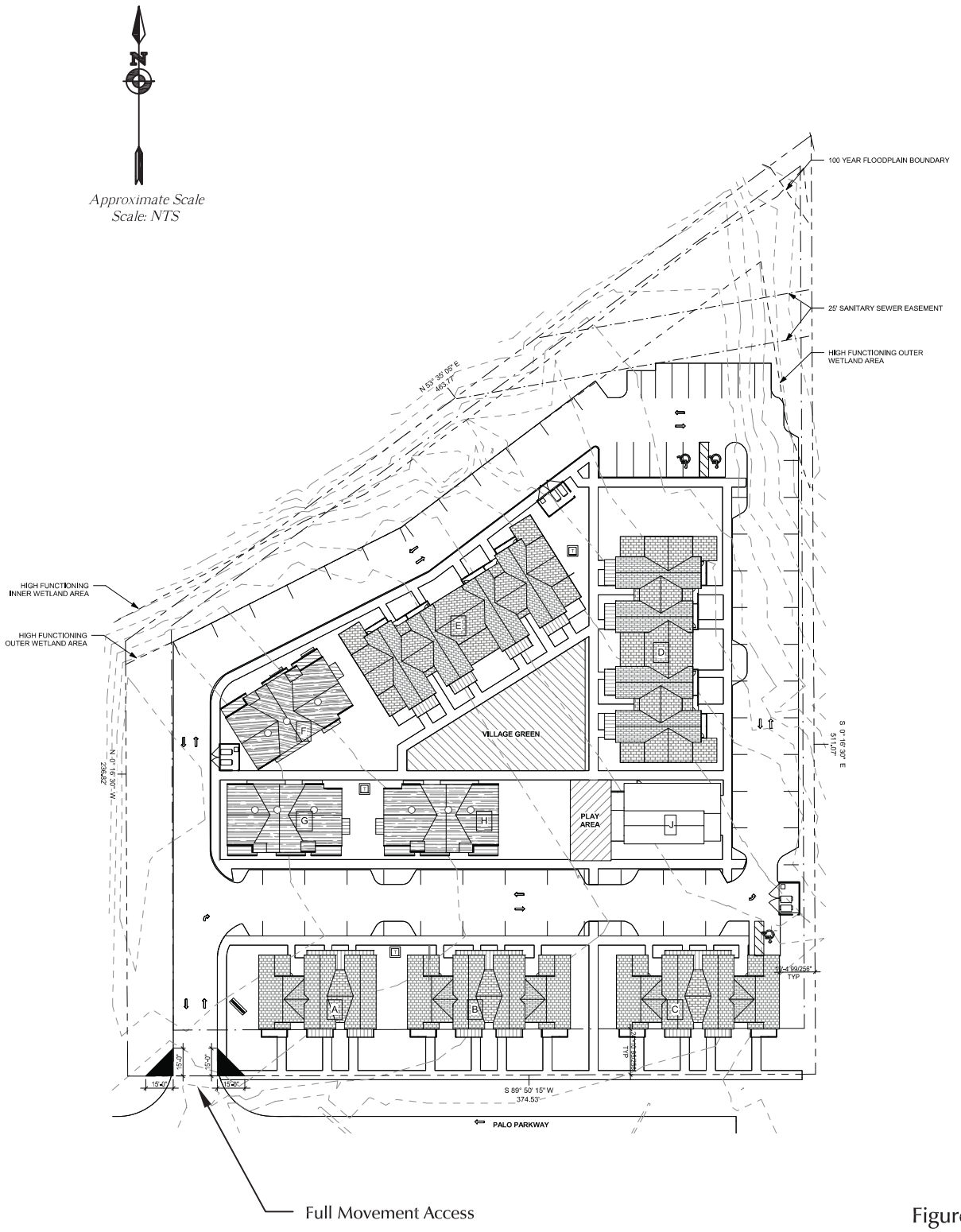


Figure 2

Site Plan

Palo Park Family Housing (LSC #150911)

TRANSPORTATION CONSULTANTS, INC.

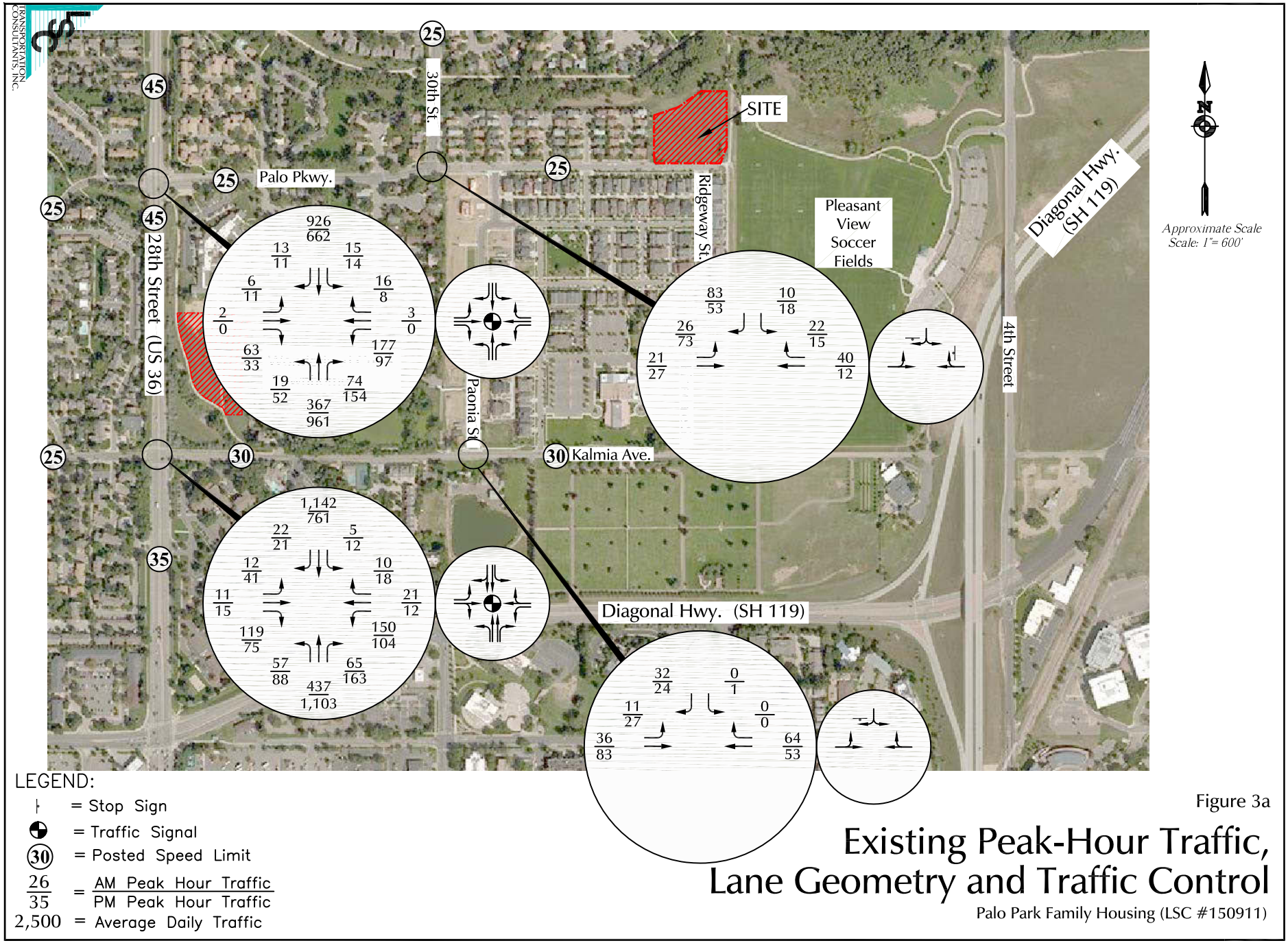


Figure 3a

Existing Peak-Hour Traffic, Lane Geometry and Traffic Control

Palo Park Family Housing (LSC #150911)

TRANSPORTATION CONSULTANTS, INC.

1 Palo Parkway west of 30th Street
2-16-16 2,155vpd
2-17-16 2,240vpd Weekday Average= 2,197vpd
2-18-16 2,195vpd

2 Palo Parkway west of Ridgeway Street
2-16-16 346vpd
2-17-16 383vpd Weekday Average= 342vpd
2-18-16 298vpd

3 Paonia Street north of Kalmia Avenue
2-16-16 529vpd
2-17-16 512vpd Weekday Average= 521vpd
2-18-16 521vpd

4 Kalmia Avenue west of Paonia Street
2-16-16 1,993vpd
2-17-16 2,224vpd Weekday Average= 2,133vpd
2-18-16 2,183vpd

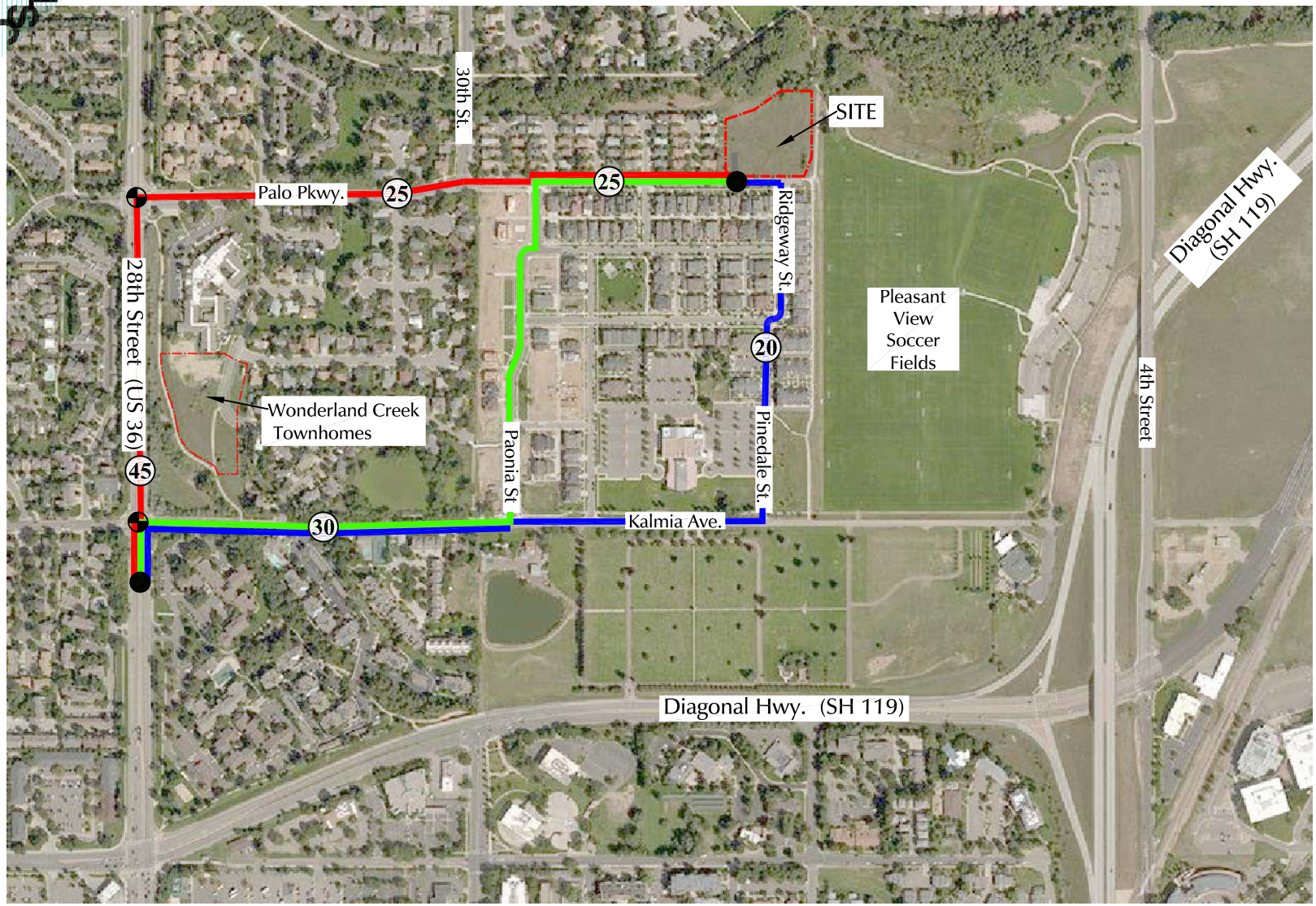
5 Kalmia Avenue east of 28th Street
2-16-16 3,488vpd
2-17-16 3,706vpd Weekday Average= 3,636vpd
2-18-16 3,713vpd

6 Palo Parkway east of 28th Street
2-16-16 3,620vpd
2-17-16 3,863vpd Weekday Average= 3,755vpd
2-18-16 3,781vpd

Figure 3b

Existing Daily Traffic Volumes

Palo Park Family Housing (LSC #150911)



Approximate Scale
Scale: 1"= 600'

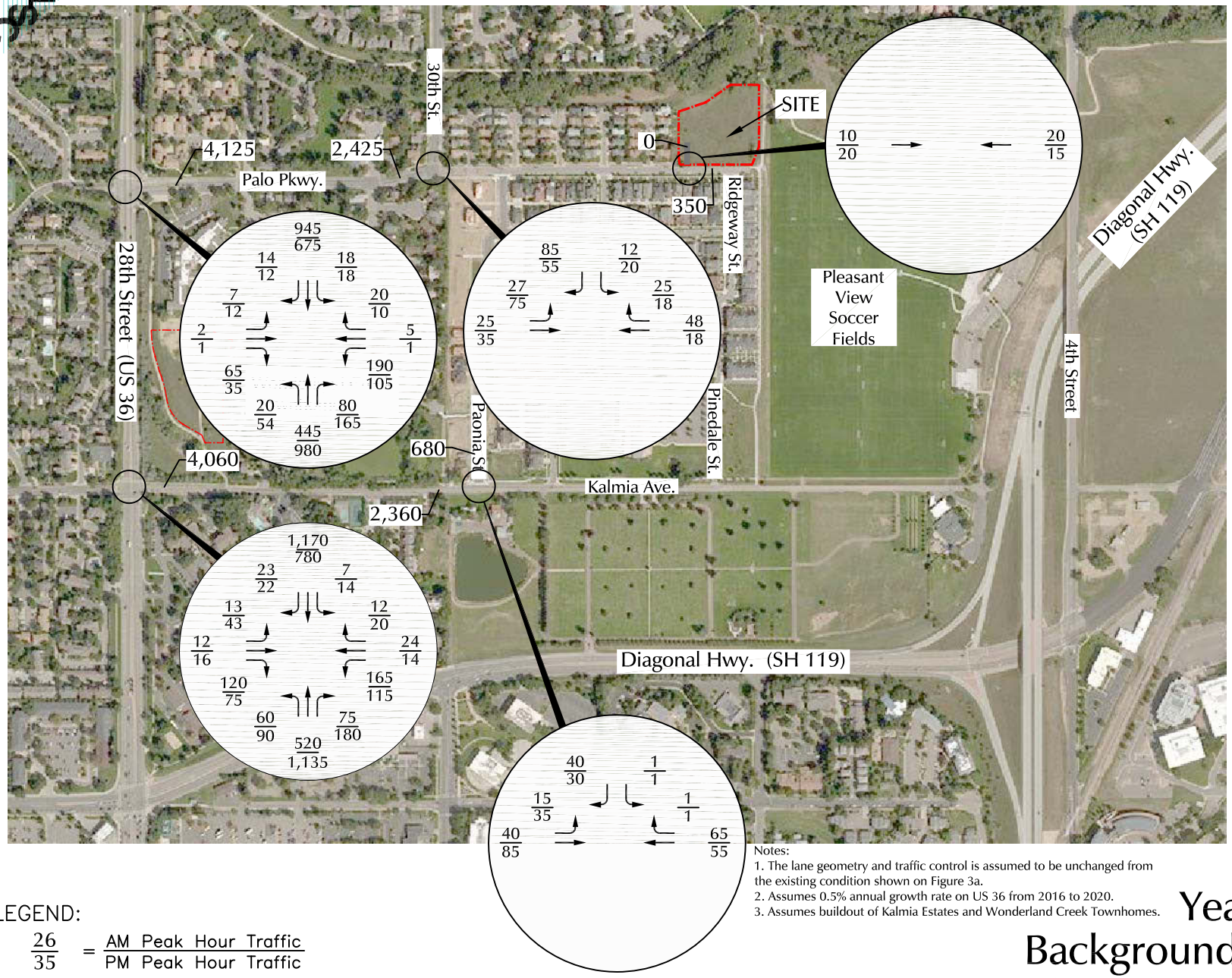
LEGEND:

- (20) = Posted Speed Limit
- = Start or End Point
- = Traffic Signal Along Route
- = via 28th Street(US 36) and Palo Parkway
- = via Kalmia Avenue, Paonia Street and Palo Parkway
- = via Kalmia Avenue, Pinedale Street and Ridgeway Street

Figure 3c

Travel Time Study Routes

Palo Park Family Housing (LSC #150911)



Notes:
1. The lane geometry and traffic control is assumed to be unchanged from the existing condition shown on Figure 3a.
2. Assumes 0.5% annual growth rate on US 36 from 2016 to 2020.
3. Assumes buildout of Kalmia Estates and Wonderland Creek Townhomes.

LEGEND:

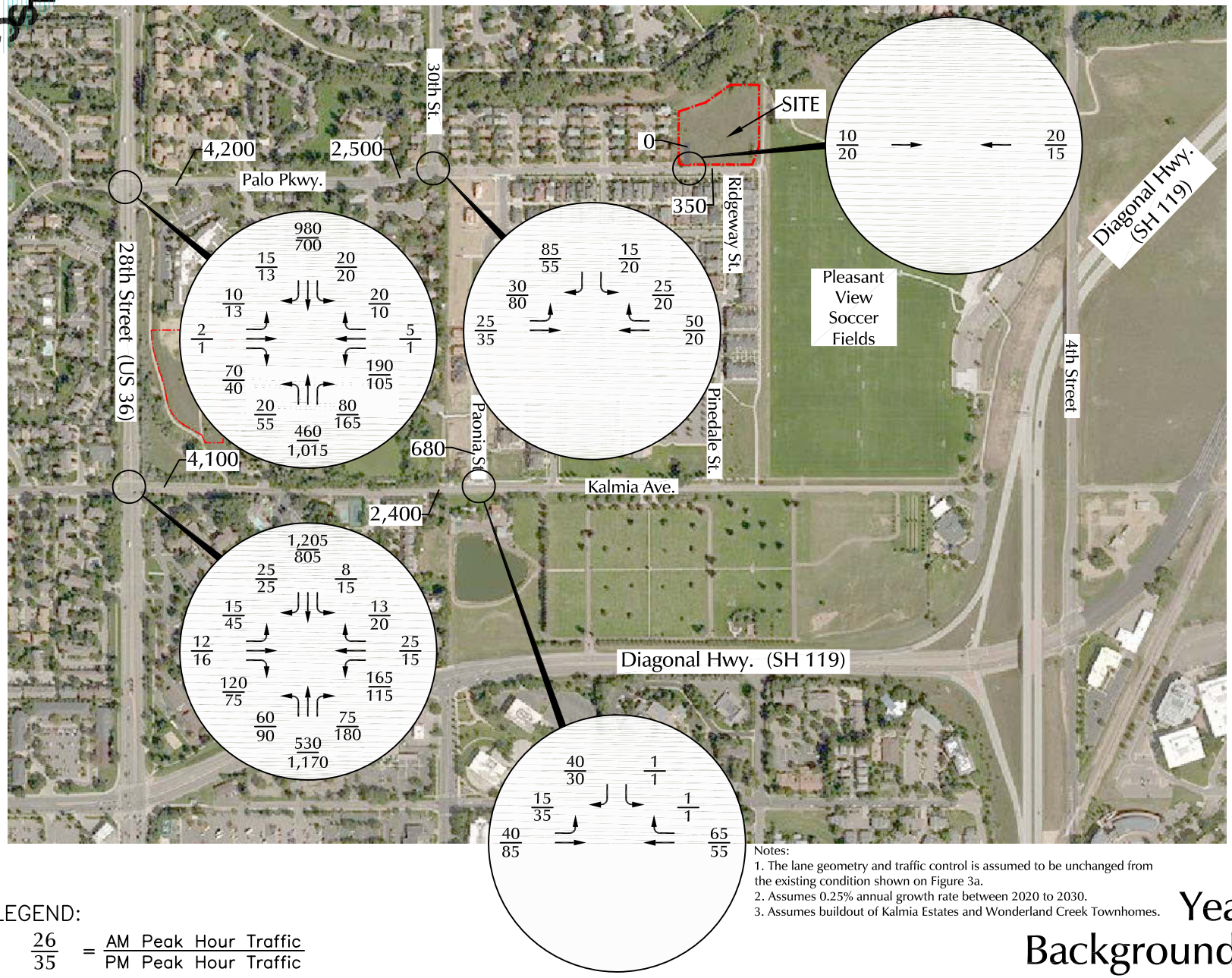
$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

25 = Average Daily Traffic

Figure 4

Year 2020 Background Traffic

Palo Park Family Housing (LSC #150911)



Approximate Scale
Scale: 1"= 600'

Notes:
1. The lane geometry and traffic control is assumed to be unchanged from the existing condition shown on Figure 3a.
2. Assumes 0.25% annual growth rate between 2020 to 30.
3. Assumes buildout of Kalmia Estates and Wonderland Creek Townhomes.

LEGEND:

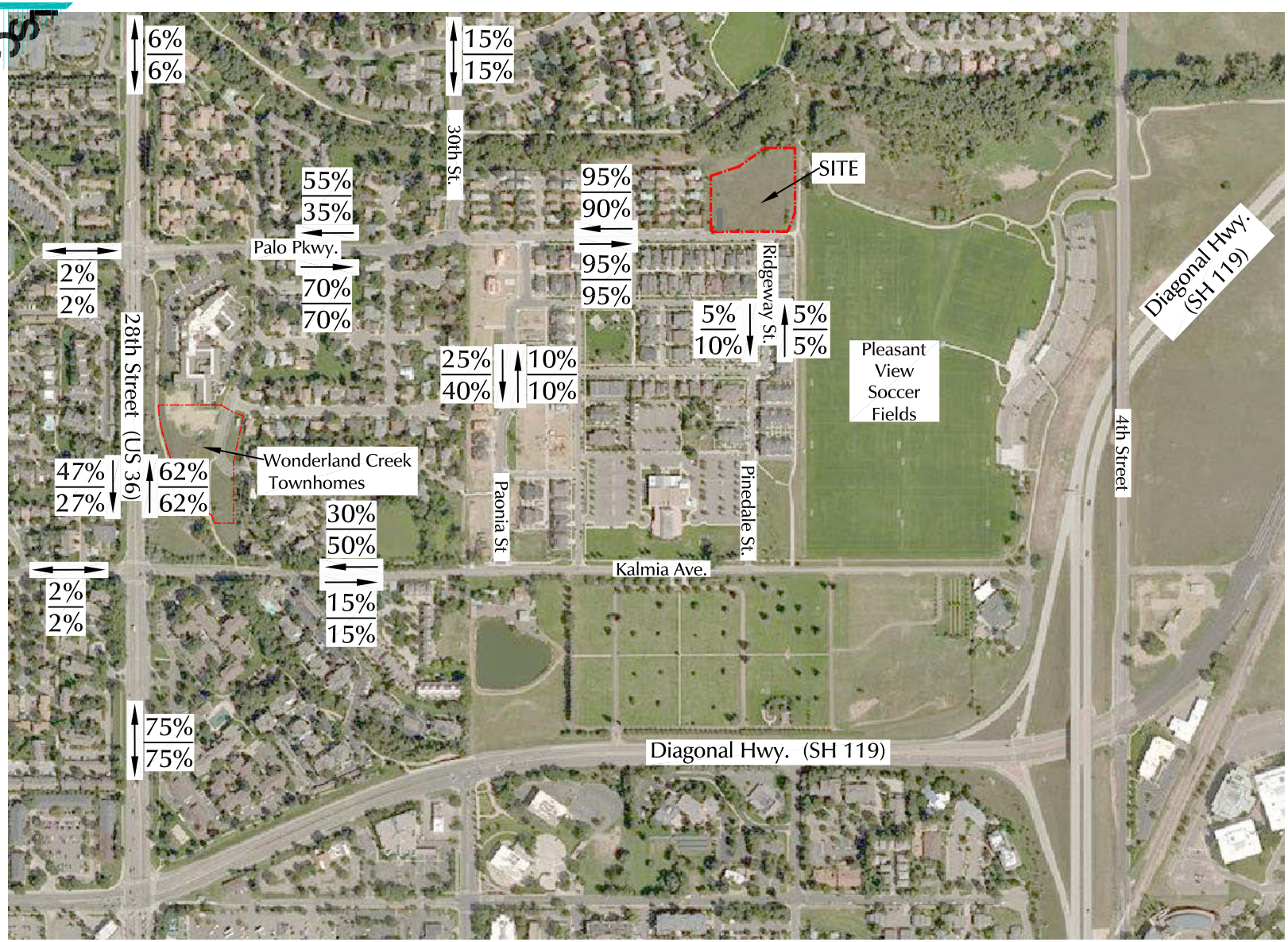
$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

25 = Average Daily Traffic

Figure 5

Year 2035 Background Traffic

Palo Park Family Housing (LSC #150911)



Approximate Scale
Scale: 1"= 600'

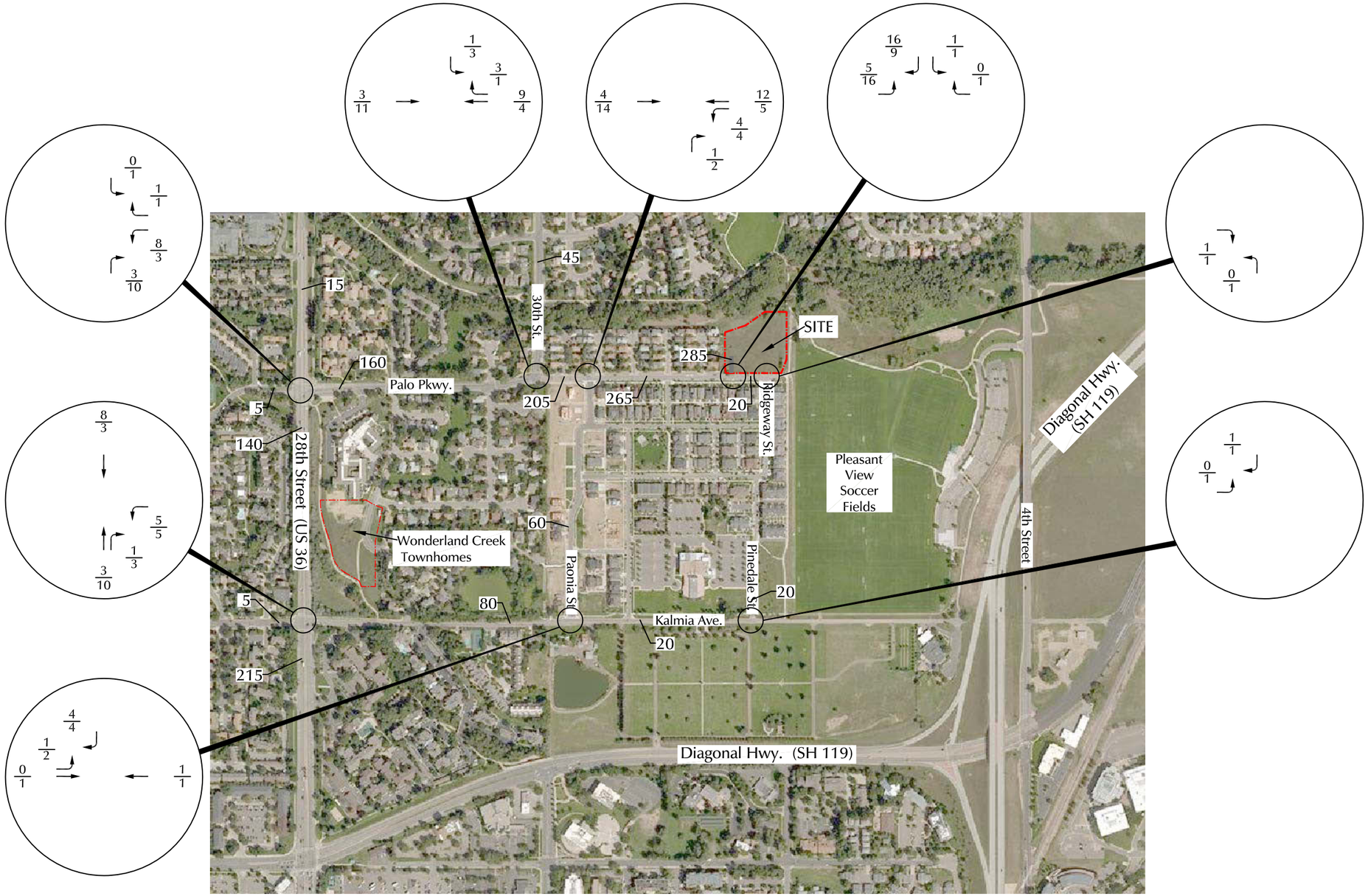
LEGEND:

$\frac{25\%}{25\%}$ = AM Percent Directional Distribution / PM Percent Directional Distribution

Figure 6

Directional Distribution of Site-Generated Traffic

Palo Park Family Housing (LSC #150911)



LEGEND:

$\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic

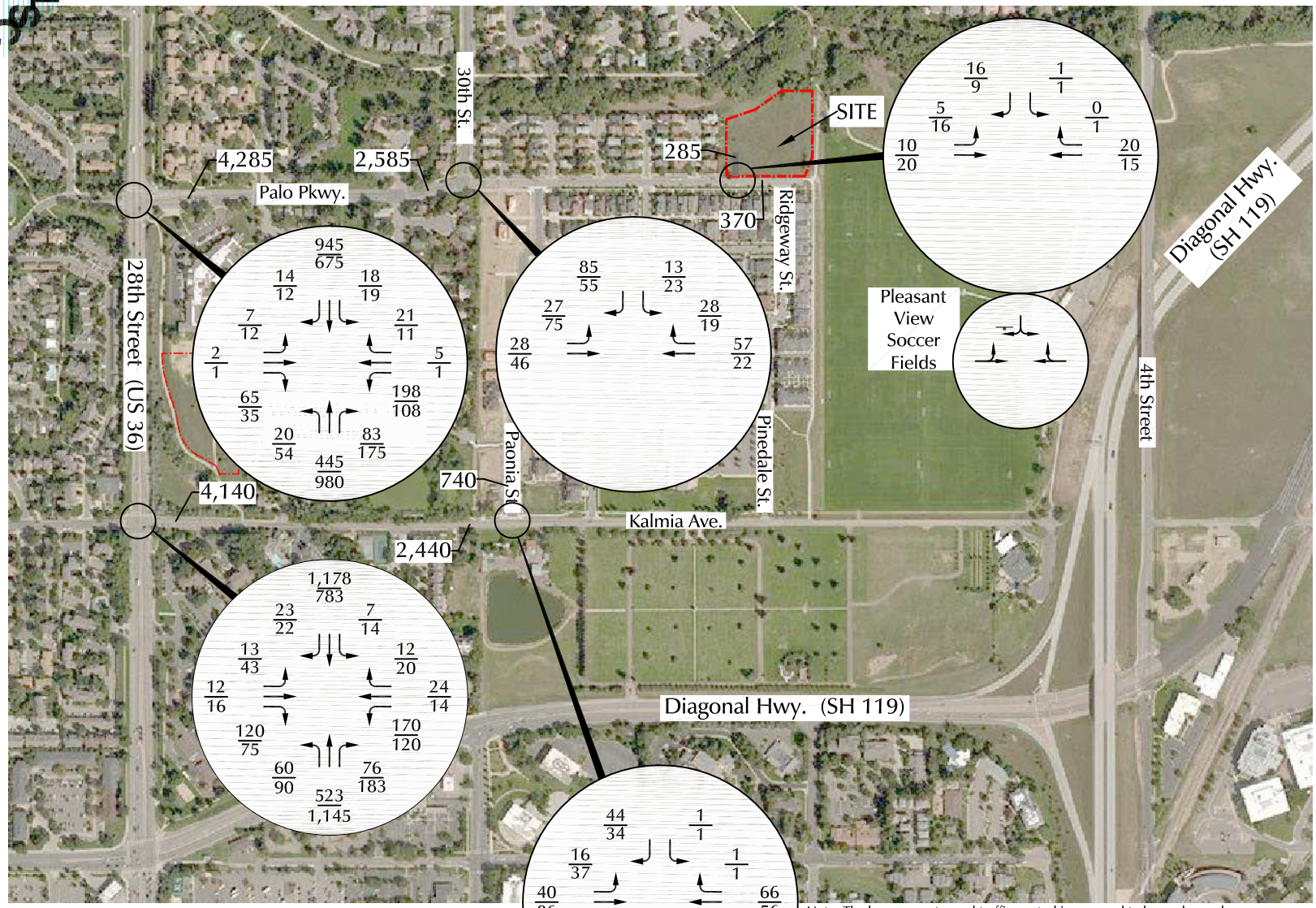
250 = Average Daily Traffic

LSC TRANSPORTATION CONSULTANTS, INC.

Figure 7

Assignment of Site-Generated Traffic

Palo Park Family Housing (LSC #150911)



Note: The lane geometry and traffic control is assumed to be unchanged from the existing conditions shown in Figure 3a unless noted otherwise.

LEGEND:

= Stop Sign

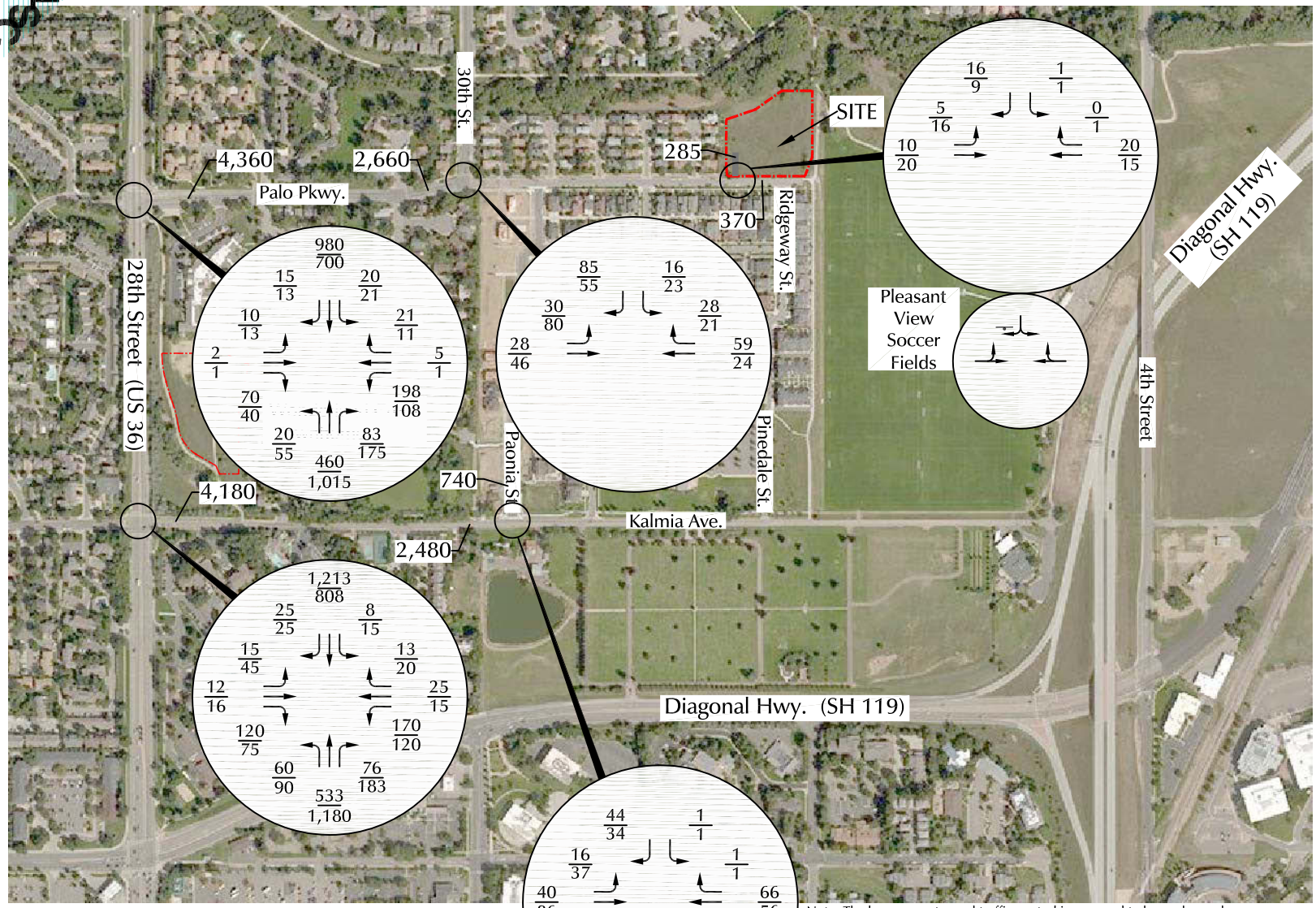
$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

25 = Average Daily Traffic

Figure 8

Year 2020 Total Traffic

Palo Park Family Housing (LSC #150911)



Approximate Scale
Scale: 1"= 600'

Note: The lane geometry and traffic control is assumed to be unchanged from the existing conditions shown in Figure 3a unless noted otherwise.

LEGEND:

= Stop Sign

$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

25 = Average Daily Traffic

Figure 9

Year 2035 Total Traffic

Palo Park Family Housing (LSC #150911)

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 28TH ST
E/W STREET: PALO PKWY / WINDING TRAIL DR
CITY: BOULDER
COUNTY: BOULDER

File Name : 28THPALO
Site Code : 00000013
Start Date : 2/16/2016
Page No : 1

Groups Printed- VEHICLES

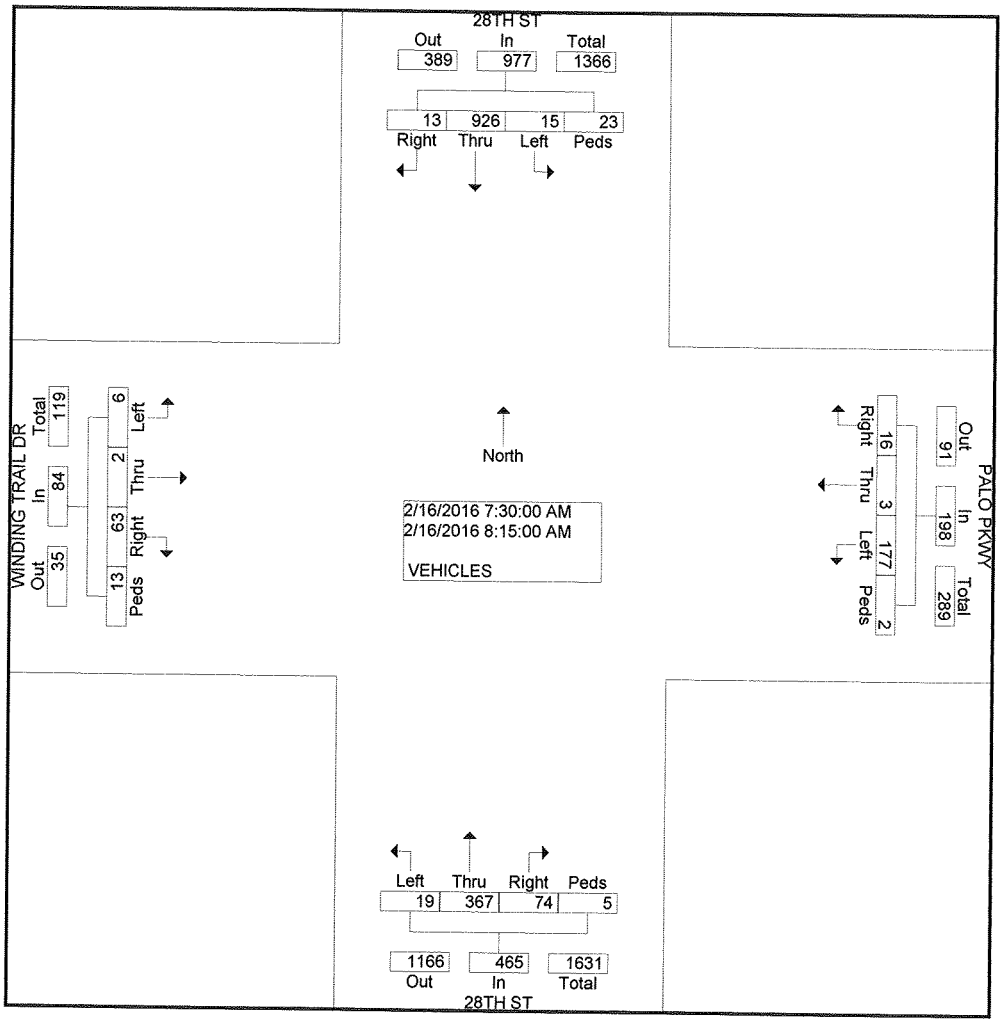
	28TH ST Southbound				PALO PKWY Westbound				28TH ST Northbound				WINDING TRAIL DR Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	2	89	0	0	11	0	2	1	1	37	10	4	1	0	6	0	164
06:45 AM	3	112	0	0	14	0	1	1	3	59	13	1	0	0	6	0	213
Total	5	201	0	0	25	0	3	2	4	96	23	5	1	0	12	0	377
07:00 AM	2	117	1	2	12	0	0	3	1	46	15	1	2	0	8	0	210
07:15 AM	4	156	2	3	26	0	8	2	0	74	13	2	2	0	7	5	304
07:30 AM	3	233	1	4	56	1	6	1	1	79	9	0	4	2	19	1	420
07:45 AM	4	220	6	3	51	1	3	1	4	80	19	2	1	0	12	7	414
Total	13	726	10	12	145	2	17	7	6	279	56	5	9	2	46	13	1348
08:00 AM	4	261	2	6	28	1	5	0	9	98	21	1	0	0	22	1	459
08:15 AM	4	212	4	10	42	0	2	0	5	110	25	2	1	0	10	4	431
Total	8	473	6	16	70	1	7	0	14	208	46	3	1	0	32	5	890
04:00 PM	3	149	0	5	23	0	5	2	8	205	43	2	3	0	12	0	460
04:15 PM	3	141	1	1	24	0	8	0	9	199	29	4	3	0	5	1	428
04:30 PM	8	172	2	4	32	0	9	1	13	212	20	6	1	0	4	2	486
04:45 PM	0	170	1	0	30	1	2	0	15	192	34	2	0	0	13	0	460
Total	14	632	4	10	109	1	24	3	45	808	126	14	7	0	34	3	1834
05:00 PM	2	176	4	4	30	0	4	2	17	221	35	1	3	0	5	2	506
05:15 PM	5	150	0	2	18	0	1	3	11	258	38	3	1	0	15	1	506
05:30 PM	2	159	3	1	28	0	1	0	11	270	44	1	4	0	10	1	535
05:45 PM	5	177	4	4	21	0	2	0	13	212	37	2	3	0	3	2	485
Total	14	662	11	11	97	0	8	5	52	961	154	7	11	0	33	6	2032
Grand Total	54	2694	31	49	446	4	59	17	121	2352	405	34	29	2	157	27	6481
Apprch %	1.9	95.3	1.1	1.7	84.8	0.8	11.2	3.2	4.2	80.8	13.9	1.2	13.5	0.9	73.0	12.6	
Total %	0.8	41.6	0.5	0.8	6.9	0.1	0.9	0.3	1.9	36.3	6.2	0.5	0.4	0.0	2.4	0.4	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 28TH ST
E/W STREET: PALO PKWY / WINDING TRAIL DR
CITY: BOULDER
COUNTY: BOULDER

File Name : 28THPALO
Site Code : 00000013
Start Date : 2/16/2016
Page No : 2

	28TH ST Southbound					PALO PKWY Westbound					28TH ST Northbound					WINDING TRAIL DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:30 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	15	926	13	23	977	177	3	16	2	198	19	367	74	5	465	6	2	63	13	84	1724
Percent	1.5	94.8	1.3	2.4		89.4	1.5	8.1	1.0		4.1	78.9	15.9	1.1		7.1	2.4	75.0	15.5		
08:00 Volume	4	261	2	6	273	28	1	5	0	34	9	98	21	1	129	0	0	22	1	23	459
Peak Factor																					0.939
High Int.	08:00 AM					07:30 AM					08:15 AM					07:30 AM					
Volume	4	261	2	6	273	56	1	6	1	64	5	110	25	2	142	4	2	19	1	26	
Peak Factor					0.895					0.773					0.819					0.808	

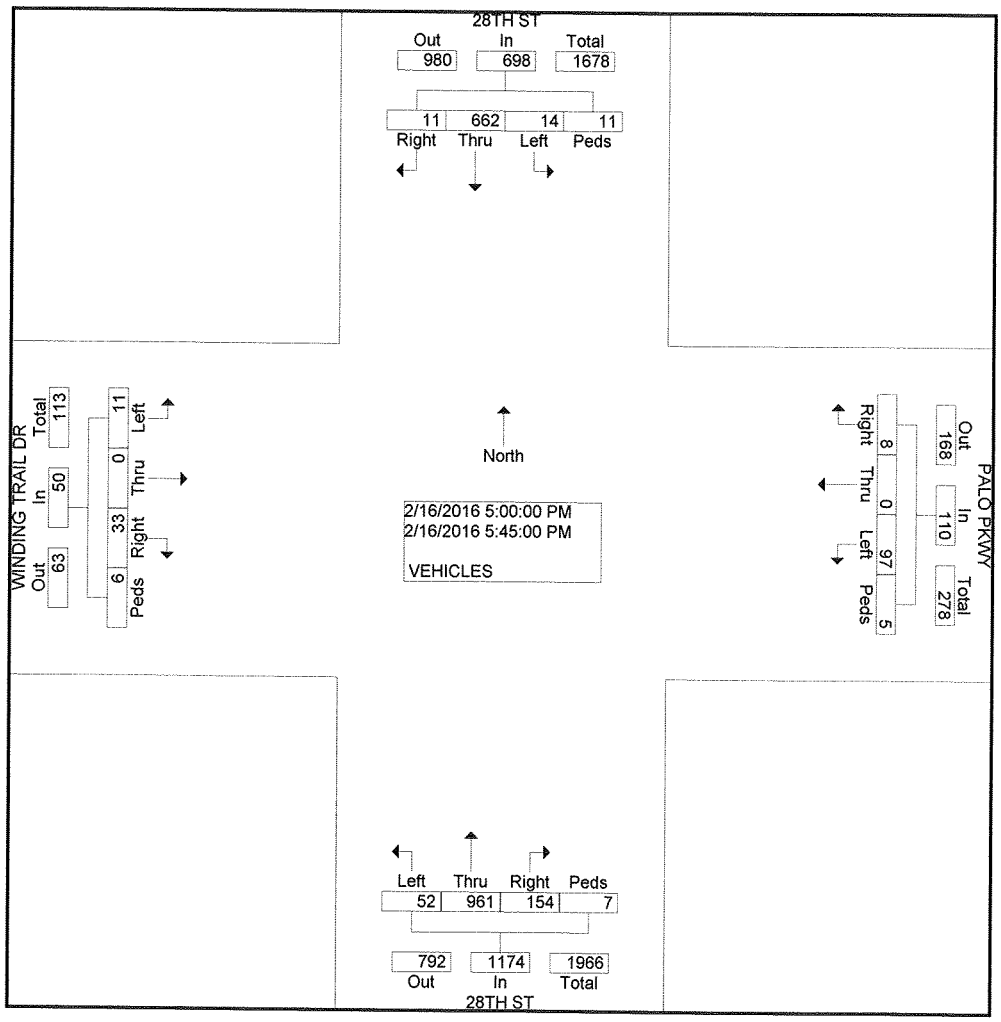


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 28TH ST
E/W STREET: PALO PKWY / WINDING TRAIL DR
CITY: BOULDER
COUNTY: BOULDER

File Name : 28THPALO
Site Code : 00000013
Start Date : 2/16/2016
Page No : 2

	28TH ST Southbound					PALO PKWY Westbound					28TH ST Northbound					WINDING TRAIL DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	14	662	11	11	698	97	0	8	5	110	52	961	154	7	1174	11	0	33	6	50	2032
Percent	2.0	94.8	1.6	1.6		88.2	0.0	7.3	4.5		4.4	81.9	13.1	0.6		22.0	0.0	66.0	12.0		
05:30 Volume	2	159	3	1	165	28	0	1	0	29	11	270	44	1	326	4	0	10	1	15	535
Peak Factor																					0.950
High Int.	05:45 PM					05:00 PM					05:30 PM					05:15 PM					
Volume	5	177	4	4	190	30	0	4	2	36	11	270	44	1	326	1	0	15	1	17	
Peak Factor					0.918					0.764					0.900					0.735	



COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 30TH ST
E/W STREET: PALO PKWY
CITY: BOULDER
COUNTY: BOULDER

File Name : 30THPALO
Site Code : 00000008
Start Date : 2/16/2016
Page No : 1

Groups Printed- VEHICLES

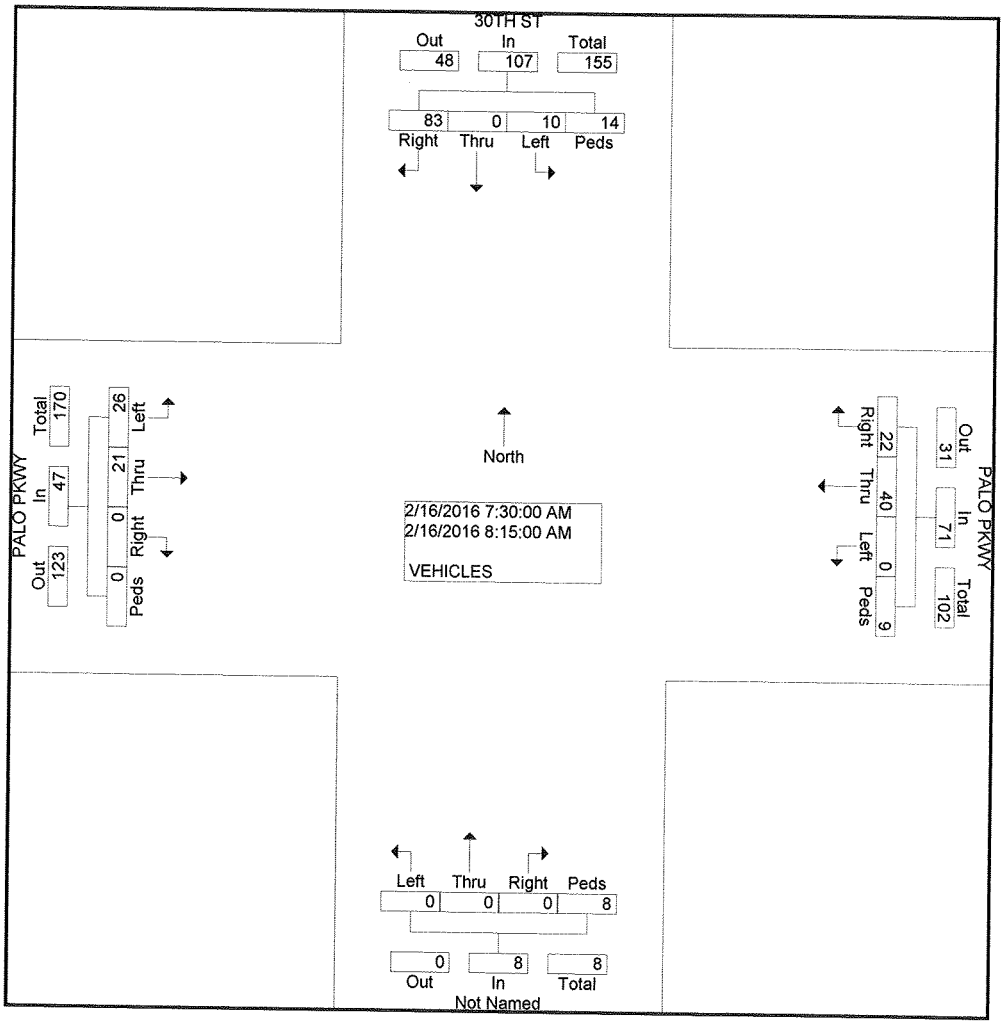
	30TH ST Southbound				PALO PKWY Westbound				Northbound				PALO PKWY Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	0	8	1	0	4	2	0	0	0	0	3	3	3	0	1	25
06:45 AM	0	0	6	0	0	4	2	0	0	0	0	0	3	3	0	0	18
Total	0	0	14	1	0	8	4	0	0	0	0	3	6	6	0	1	43
07:00 AM	3	0	9	1	0	2	2	3	0	0	0	1	1	2	0	1	25
07:15 AM	1	0	16	1	0	7	5	1	0	0	0	1	2	1	0	0	35
07:30 AM	2	0	30	2	0	12	5	1	0	0	0	2	5	3	0	0	62
07:45 AM	4	0	24	1	0	7	7	0	0	0	0	1	4	5	0	0	53
Total	10	0	79	5	0	28	19	5	0	0	0	5	12	11	0	1	175
08:00 AM	3	0	10	4	0	10	6	7	0	0	0	2	11	3	0	0	56
08:15 AM	1	0	19	7	0	11	4	1	0	0	0	3	6	10	0	0	62
Total	4	0	29	11	0	21	10	8	0	0	0	5	17	13	0	0	118
04:00 PM	6	0	12	7	0	6	4	5	0	0	0	0	21	11	0	0	72
04:15 PM	5	0	12	2	0	9	2	7	0	0	0	1	13	9	0	0	60
04:30 PM	0	0	10	1	0	1	5	3	0	0	0	1	13	6	0	3	43
04:45 PM	4	0	15	4	0	6	3	0	0	0	0	0	24	3	0	0	59
Total	15	0	49	14	0	22	14	15	0	0	0	2	71	29	0	3	234
05:00 PM	4	0	20	3	0	3	3	0	0	0	0	0	15	5	0	0	53
05:15 PM	7	0	7	1	0	2	2	1	0	0	0	1	17	7	0	0	45
05:30 PM	3	0	12	1	0	3	5	0	0	0	0	0	27	4	0	0	55
05:45 PM	4	0	14	4	0	4	5	0	0	0	0	1	14	11	0	0	57
Total	18	0	53	9	0	12	15	1	0	0	0	2	73	27	0	0	210
Grand Total	47	0	224	40	0	91	62	29	0	0	0	17	179	86	0	5	780
Apprch %	15.1	0.0	72.0	12.9	0.0	50.0	34.1	15.9	0.0	0.0	0.0	100.0	66.3	31.9	0.0	1.9	
Total %	6.0	0.0	28.7	5.1	0.0	11.7	7.9	3.7	0.0	0.0	0.0	2.2	22.9	11.0	0.0	0.6	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 30TH ST
E/W STREET: PALO PKWY
CITY: BOULDER
COUNTY: BOULDER

File Name : 30THPALO
Site Code : 00000008
Start Date : 2/16/2016
Page No : 2

	30TH ST Southbound					PALO PKWY Westbound					Northbound					PALO PKWY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:30 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	10	0	83	14	107	0	40	22	9	71	0	0	0	8	8	26	21	0	0	47	233
Percent	9.3	0.0	77.6	13.1		0.0	56.3	31.0	12.7		0.0	0.0	0.0	100.0		55.3	44.7	0.0	0.0		
08:15 Volume	1	0	19	7	27	0	11	4	1	16	0	0	0	3	3	6	10	0	0	16	62
Peak Factor																					0.940
High Int.	07:30 AM					08:00 AM					08:15 AM					08:15 AM					
Volume	2	0	30	2	34	0	10	6	7	23	0	0	0	3	3	6	10	0	0	16	
Peak Factor					0.787					0.772					0.667					0.734	

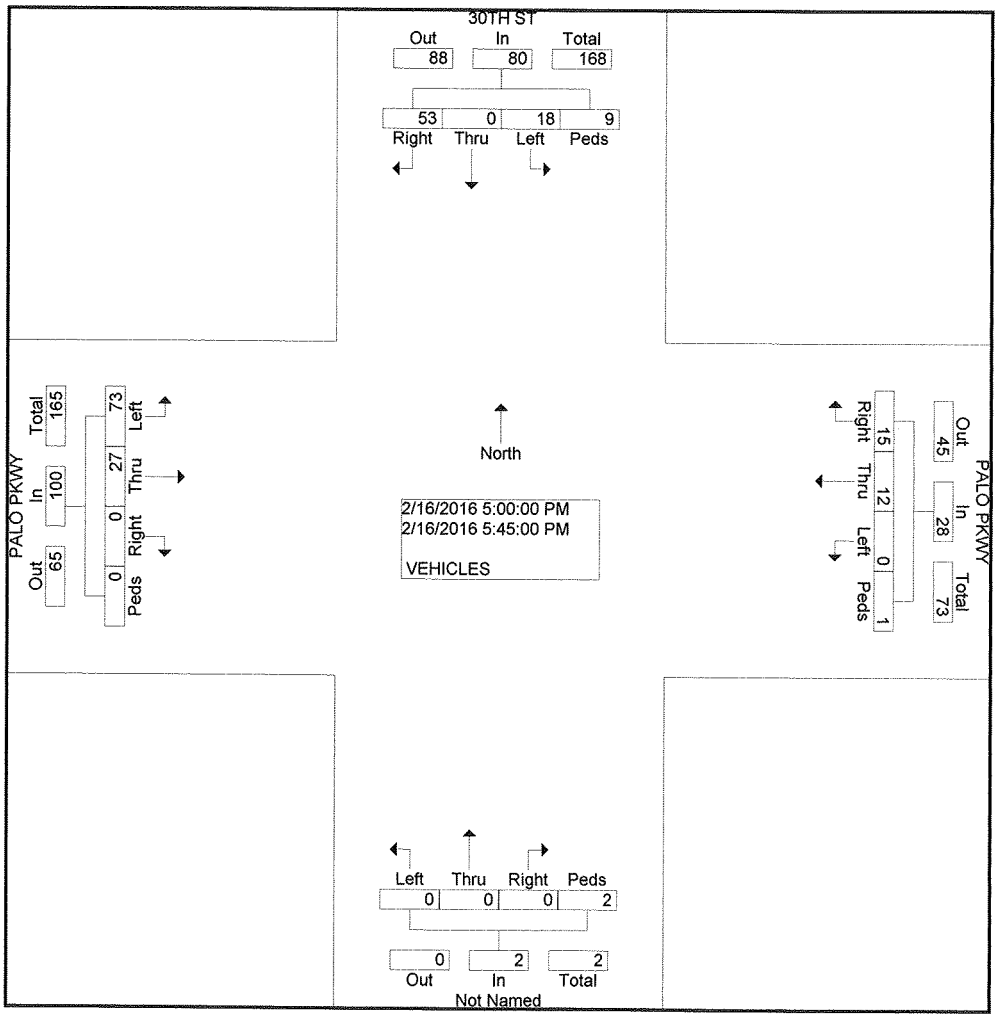


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 30TH ST
E/W STREET: PALO PKWY
CITY: BOULDER
COUNTY: BOULDER

File Name : 30THPALO
Site Code : 00000008
Start Date : 2/16/2016
Page No : 2

	30TH ST Southbound					PALO PKWY Westbound					Northbound					PALO PKWY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	18	0	53	9	80	0	12	15	1	28	0	0	0	2	2	73	27	0	0	100	210
Percent	22.5	0.0	66.3	11.3		0.0	42.9	53.6	3.6		0.0	0.0	0.0	100.0		73.0	27.0	0.0	0.0		
05:45 Volume	4	0	14	4	22	0	4	5	0	9	0	0	0	1	1	14	11	0	0	25	57
Peak Factor																					0.921
High Int.	05:00 PM					05:45 PM					05:15 PM					05:30 PM					
Volume	4	0	20	3	27	0	4	5	0	9	0	0	0	1	1	27	4	0	0	31	
Peak Factor					0.741					0.778					0.500					0.806	



COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 28TH ST
E/W STREET: KALMIA AVE
CITY: BOULDER
COUNTY: BOULDER

File Name : 28THKALM
Site Code : 00000014
Start Date : 2/16/2016
Page No : 1

Groups Printed- VEHICLES

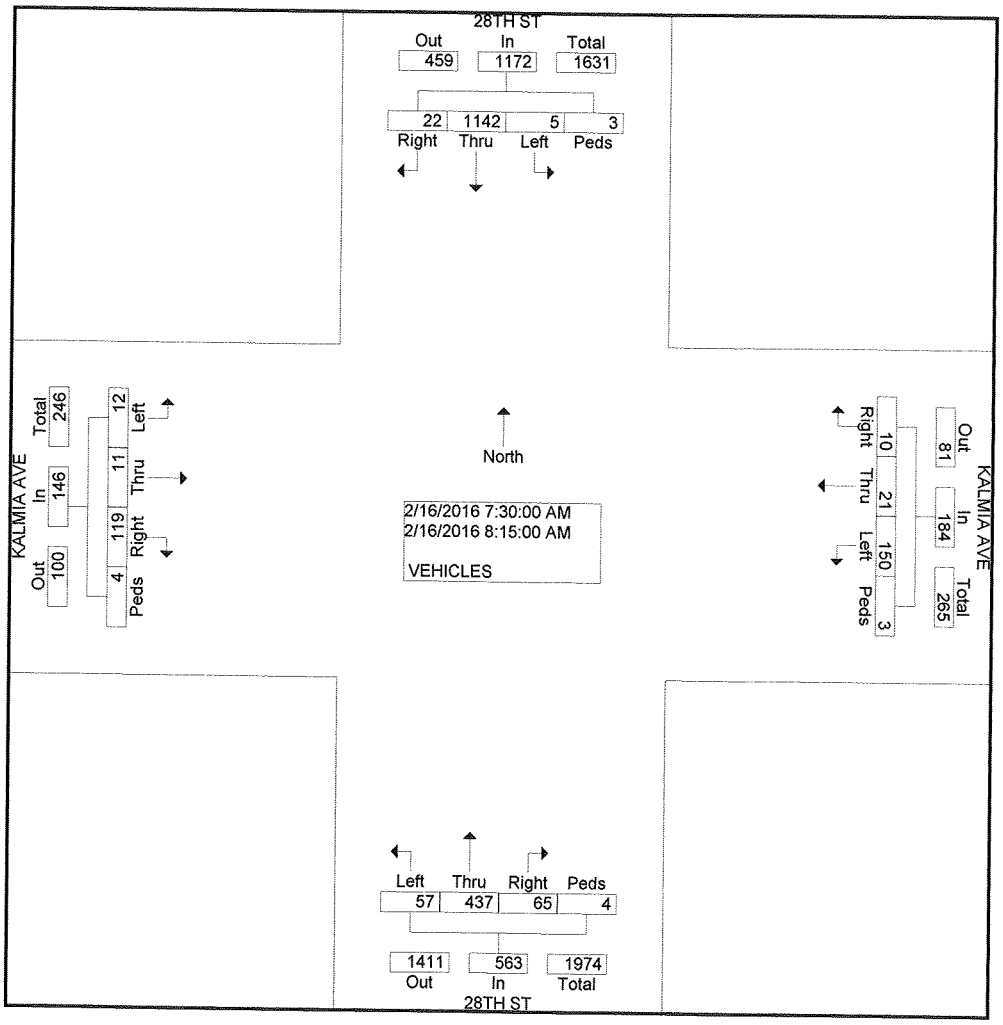
	28TH ST Southbound				KALMIA AVE Westbound				28TH ST Northbound				KALMIA AVE Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	107	1	1	10	0	0	0	6	50	4	3	0	0	8	0	190
06:45 AM	0	129	1	0	12	0	3	0	11	67	7	1	5	0	7	1	244
Total	0	236	2	1	22	0	3	0	17	117	11	4	5	0	15	1	434
07:00 AM	0	130	0	5	19	0	0	1	8	62	5	1	1	0	11	2	245
07:15 AM	1	188	4	2	23	2	3	4	9	89	6	4	0	0	20	2	357
07:30 AM	0	292	5	0	26	6	0	0	19	84	6	1	1	1	29	1	471
07:45 AM	2	270	5	1	47	7	5	1	12	95	18	2	7	6	33	2	513
Total	3	880	14	8	115	15	8	6	48	330	35	8	9	7	93	7	1586
08:00 AM	1	320	3	2	40	3	2	2	13	127	21	1	0	2	36	0	573
08:15 AM	2	260	9	0	37	5	3	0	13	131	20	0	4	2	21	1	508
Total	3	580	12	2	77	8	5	2	26	258	41	1	4	4	57	1	1081
04:00 PM	3	189	3	0	28	4	3	1	21	235	20	2	11	5	18	0	543
04:15 PM	1	162	2	0	26	6	3	0	20	235	27	7	6	1	12	1	509
04:30 PM	4	206	2	1	20	3	0	2	17	239	43	5	7	3	24	1	577
04:45 PM	1	208	6	0	20	1	1	3	14	238	23	2	11	4	24	0	556
Total	9	765	13	1	94	14	7	6	72	947	113	16	35	13	78	2	2185
05:00 PM	2	200	7	4	21	2	6	3	22	263	39	1	6	2	16	1	595
05:15 PM	4	180	1	0	22	1	3	1	27	280	35	1	15	9	13	0	592
05:30 PM	5	188	3	1	35	9	6	1	26	311	48	1	12	2	26	0	674
05:45 PM	1	193	10	0	26	0	3	1	13	249	41	1	8	2	20	4	572
Total	12	761	21	5	104	12	18	6	88	1103	163	4	41	15	75	5	2433
Grand Total	27	3222	62	17	412	49	41	20	251	2755	363	33	94	39	318	16	7719
Apprch %	0.8	96.8	1.9	0.5	78.9	9.4	7.9	3.8	7.4	81.0	10.7	1.0	20.1	8.4	68.1	3.4	
Total %	0.3	41.7	0.8	0.2	5.3	0.6	0.5	0.3	3.3	35.7	4.7	0.4	1.2	0.5	4.1	0.2	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 28TH ST
E/W STREET: KALMIA AVE
CITY: BOULDER
COUNTY: BOULDER

File Name : 28THKALM
Site Code : 00000014
Start Date : 2/16/2016
Page No : 2

	28TH ST Southbound					KALMIA AVE Westbound					28TH ST Northbound					KALMIA AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:30 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	5	1142	22	3	1172	150	21	10	3	184	57	437	65	4	563	12	11	119	4	146	2065
Percent	0.4	97.4	1.9	0.3		81.5	11.4	5.4	1.6		10.1	77.6	11.5	0.7		8.2	7.5	81.5	2.7		
08:00 Volume	1	320	3	2	326	40	3	2	2	47	13	127	21	1	162	0	2	36	0	38	573
Peak Factor																					0.901
High Int.	08:00 AM					07:45 AM					08:15 AM					07:45 AM					
Volume	1	320	3	2	326	47	7	5	1	60	13	131	20	0	164	7	6	33	2	48	
Peak Factor					0.899					0.767					0.858					0.760	

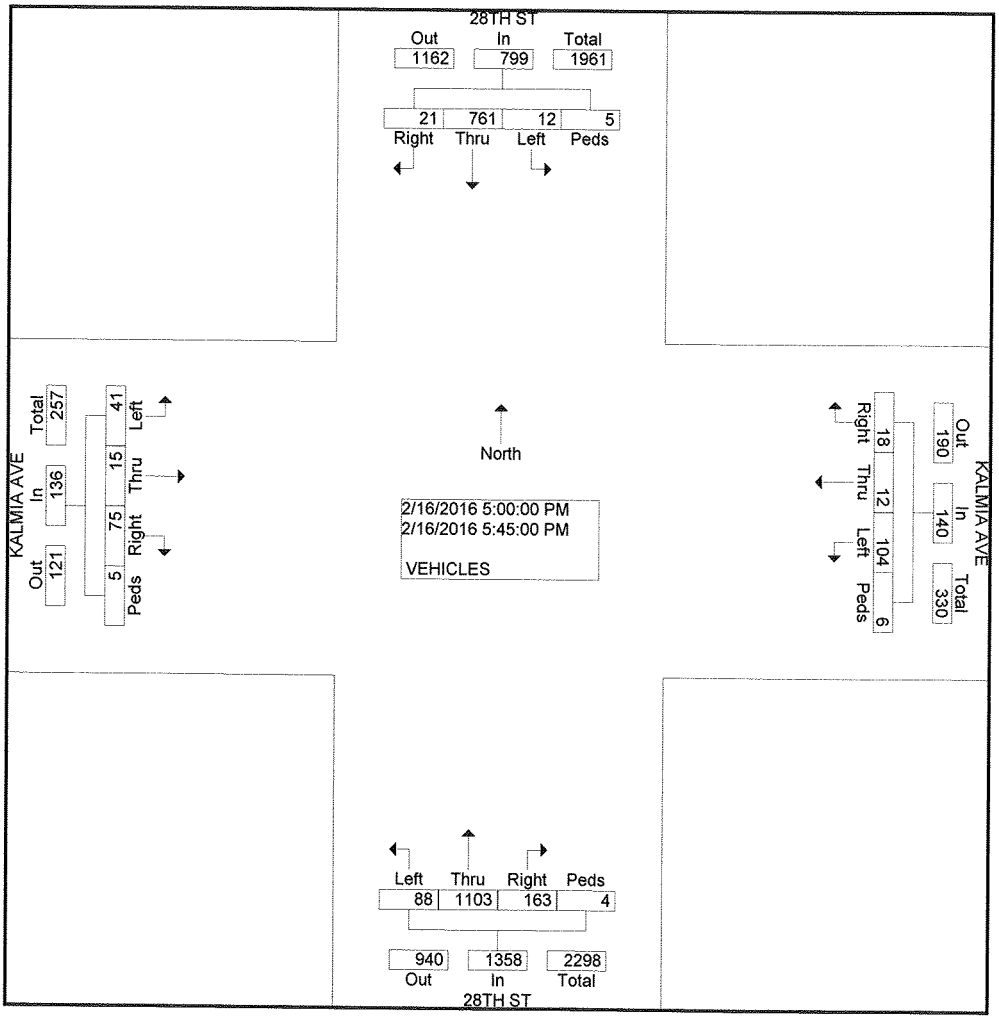


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 28TH ST
E/W STREET: KALMIA AVE
CITY: BOULDER
COUNTY: BOULDER

File Name : 28THKALM
Site Code : 00000014
Start Date : 2/16/2016
Page No : 2

	28TH ST Southbound					KALMIA AVE Westbound					28TH ST Northbound					KALMIA AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	12	761	21	5	799	104	12	18	6	140	88	1103	163	4	1358	41	15	75	5	136	2433
Percent	1.5	95.2	2.6	0.6		74.3	8.6	12.9	4.3		6.5	81.2	12.0	0.3		30.1	11.0	55.1	3.7		
05:30 Volume	5	188	3	1	197	35	9	6	1	51	26	311	48	1	386	12	2	26	0	40	674
Peak Factor																					0.902
High Int.	05:00 PM					05:30 PM					05:30 PM					05:30 PM					
Volume	2	200	7	4	213	35	9	6	1	51	26	311	48	1	386	12	2	26	0	40	
Peak Factor					0.938					0.686					0.880					0.850	



COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: PAONIA ST
E/W STREET: KALMIA AVE
CITY: BOULDER
COUNTY: BOULDER

File Name : PAONKALM
Site Code : 00000016
Start Date : 2/16/2016
Page No : 1

Groups Printed- VEHICLES

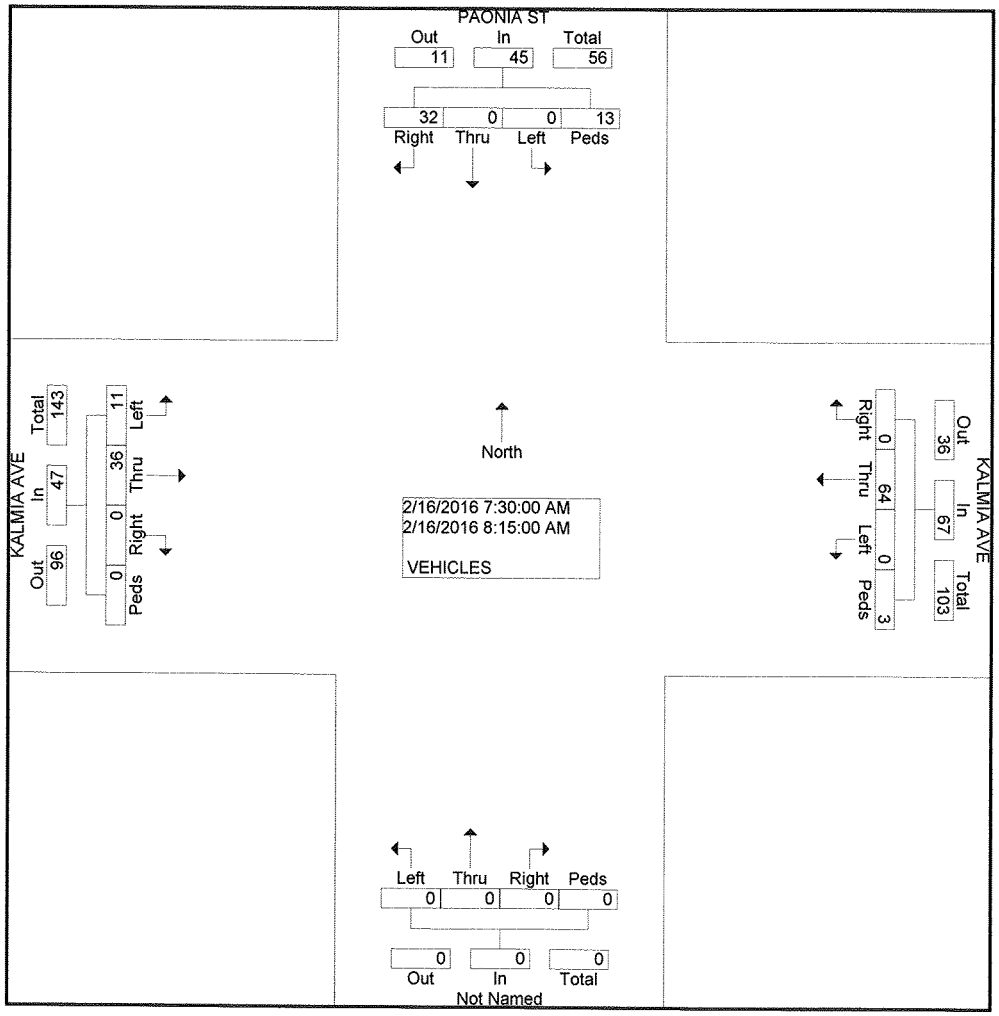
	PAONIA ST Southbound				KALMIA AVE Westbound				Northbound				KALMIA AVE Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	0	2	3	0	3	0	0	0	0	0	0	2	2	0	0	12
06:45 AM	0	0	5	0	0	2	0	0	0	0	0	0	4	3	0	0	14
Total	0	0	7	3	0	5	0	0	0	0	0	0	6	5	0	0	26
07:00 AM	0	0	2	3	0	7	1	0	0	0	0	0	0	4	0	0	17
07:15 AM	0	0	5	2	0	10	0	0	0	0	0	0	1	5	0	0	23
07:30 AM	0	0	4	2	0	13	0	0	0	0	0	0	2	3	0	0	24
07:45 AM	0	0	9	3	0	18	0	2	0	0	0	0	2	8	0	0	42
Total	0	0	20	10	0	48	1	2	0	0	0	0	5	20	0	0	106
08:00 AM	0	0	8	5	0	15	0	1	0	0	0	0	4	12	0	0	45
08:15 AM	0	0	11	3	0	18	0	0	0	0	0	0	3	13	0	0	48
Total	0	0	19	8	0	33	0	1	0	0	0	0	7	25	0	0	93
04:00 PM	0	0	2	0	0	23	0	0	0	0	0	0	4	12	0	0	41
04:15 PM	0	0	4	3	0	13	0	0	0	0	0	0	4	11	0	0	35
04:30 PM	0	0	7	4	0	7	0	0	0	0	0	0	6	17	0	0	41
04:45 PM	1	0	4	3	0	12	1	0	0	0	0	0	7	11	0	0	39
Total	1	0	17	10	0	55	1	0	0	0	0	0	21	51	0	0	156
05:00 PM	0	0	4	4	0	11	0	0	0	0	0	0	6	15	0	0	40
05:15 PM	1	0	4	1	0	10	0	0	0	0	0	0	6	24	0	0	46
05:30 PM	0	0	9	2	0	23	0	0	0	0	0	0	5	27	0	0	66
05:45 PM	0	0	7	2	0	9	0	0	0	0	0	0	10	17	0	0	45
Total	1	0	24	9	0	53	0	0	0	0	0	0	27	83	0	0	197
Grand Total	2	0	87	40	0	194	2	3	0	0	0	0	66	184	0	0	578
Apprch %	1.6	0.0	67.4	31.0	0.0	97.5	1.0	1.5	0.0	0.0	0.0	0.0	26.4	73.6	0.0	0.0	
Total %	0.3	0.0	15.1	6.9	0.0	33.6	0.3	0.5	0.0	0.0	0.0	0.0	11.4	31.8	0.0	0.0	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: PAONIA ST
E/W STREET: KALMIA AVE
CITY: BOULDER
COUNTY: BOULDER

File Name : PAONKALM
Site Code : 00000016
Start Date : 2/16/2016
Page No : 2

	PAONIA ST Southbound					KALMIA AVE Westbound					Northbound					KALMIA AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:30 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	0	0	32	13	45	0	64	0	3	67	0	0	0	0	0	11	36	0	0	47	159
Percent	0.0	0.0	71.1	28.9		0.0	95.5	0.0	4.5		0.0	0.0	0.0	0.0		23.4	76.6	0.0	0.0		
08:15 Volume	0	0	11	3	14	0	18	0	0	18	0	0	0	0	0	3	13	0	0	16	48
Peak Factor																					0.828
High Int.	08:15 AM					07:45 AM					6:15:00 AM					08:00 AM					
Volume	0	0	11	3	14	0	18	0	2	20	0	0	0	0	0	4	12	0	0	16	
Peak Factor					0.804					0.838										0.734	

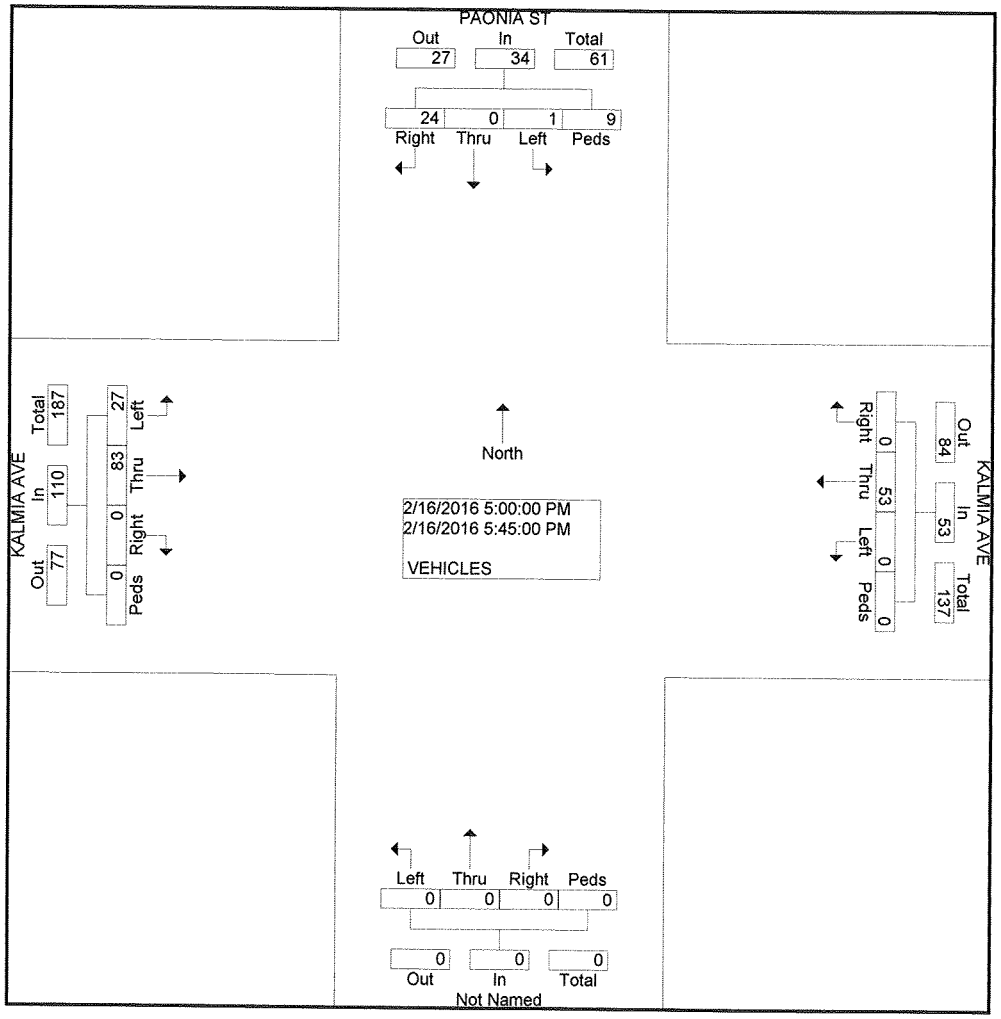


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: PAONIA ST
E/W STREET: KALMIA AVE
CITY: BOULDER
COUNTY: BOULDER

File Name : PAONKALM
Site Code : 00000016
Start Date : 2/16/2016
Page No : 2

	PAONIA ST Southbound					KALMIA AVE Westbound					Northbound					KALMIA AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	1	0	24	9	34	0	53	0	0	53	0	0	0	0	0	27	83	0	0	110	197
Percent	2.9	0.0	70.6	26.5		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		24.5	75.5	0.0	0.0		
05:30 Volume	0	0	9	2	11	0	23	0	0	23	0	0	0	0	0	5	27	0	0	32	66
Peak Factor																					0.746
High Int.	05:30 PM					05:30 PM										05:30 PM					
Volume	0	0	9	2	11	0	23	0	0	23	0	0	0	0	0	5	27	0	0	32	
Peak Factor					0.773					0.576										0.859	



Page 1

Location: PALO PKWY W/O RIDGEWAY ST
City: BOULDER
County: BOULDER
Direction: WESTBOUND-EASTBOUND

COUNTER MEASURES INC.

1889 YORK STREET
DENVER,COLORADO 80206
303-333-7409

Site Code: 2114
Station ID: 2114

Start Time	15-Feb-16 WB	15-Feb-16 EB	Tue WB	Tue EB	Wed WB	Wed EB	Thu WB	Thu EB	Fri WB	Fri EB	Sat WB	Sat EB	Sun WB	Sun EB	Week Average WB	Week Average EB
12:00 AM	*	*	6	4	0	0	1	1	*	*	*	*	*	*	2	2
01:00	*	*	1	0	3	2	1	1	*	*	*	*	*	*	2	1
02:00	*	*	1	1	0	0	0	0	*	*	*	*	*	*	0	0
03:00	*	*	0	0	0	0	0	0	*	*	*	*	*	*	0	0
04:00	*	*	2	2	5	5	2	2	*	*	*	*	*	*	3	3
05:00	*	*	2	4	0	0	1	0	*	*	*	*	*	*	1	1
06:00	*	*	6	7	4	1	6	4	*	*	*	*	*	*	5	4
07:00	*	*	**20**	**17**	11	4	8	0	*	*	*	*	*	*	**13**	7
08:00	*	*	9	6	10	10	10	8	*	*	*	*	*	*	10	8
09:00	*	*	14	12	12	12	**14**	**16**	*	*	*	*	*	*	13	**13**
10:00	*	*	4	8	**14**	**14**	6	13	*	*	*	*	*	*	8	12
11:00	*	*	11	9	8	6	9	7	*	*	*	*	*	*	9	7
12:00 PM	*	*	14	22	16	16	**18**	**22**	*	*	*	*	*	*	**16**	**20**
01:00	*	*	13	10	12	18	11	12	*	*	*	*	*	*	12	13
02:00	*	*	10	4	12	12	11	9	*	*	*	*	*	*	11	8
03:00	*	*	12	11	17	14	5	6	*	*	*	*	*	*	11	10
04:00	*	*	**15**	**26**	7	16	12	16	*	*	*	*	*	*	11	19
05:00	*	*	8	6	**22**	**32**	8	11	*	*	*	*	*	*	13	16
06:00	*	*	13	15	4	6	9	11	*	*	*	*	*	*	9	11
07:00	*	*	3	4	8	18	8	8	*	*	*	*	*	*	6	10
08:00	*	*	4	6	5	5	0	1	*	*	*	*	*	*	3	4
09:00	*	*	1	2	8	12	0	2	*	*	*	*	*	*	3	5
10:00	*	*	0	1	1	1	2	3	*	*	*	*	*	*	1	2
11:00	*	*	0	0	0	0	1	2	*	*	*	*	*	*	0	1
Lane	0	0	169	177	179	204	143	155	0	0	0	0	0	0	162	177
Day	0		346		383		298		0		0		0		339	
AM Peak	-	-	07:00	07:00	10:00	10:00	09:00	09:00	-	-	-	-	-	-	07:00	09:00
Vol.	-	-	20	17	14	14	14	16	-	-	-	-	-	-	13	13
PM Peak	-	-	16:00	16:00	17:00	17:00	12:00	12:00	-	-	-	-	-	-	12:00	12:00
Vol.	-	-	15	26	22	32	18	22	-	-	-	-	-	-	16	20

Comb. Total	0	346	383	298	0	0	0	339
ADT	ADT 342	AADT 342						

Page 1

Location: PAONIA ST N/O KALMIA AVE
City: BOULDER
County: BOULDER
Direction: NORTHBOUND-SOUTHBOUND

COUNTER MEASURES INC.

1889 YORK STREET
DENVER,COLORADO 80206
303-333-7409

Site Code: 021510
Station ID: 021510

Start Time	15-Feb-16 NB	15-Feb-16 SB	Tue NB	Tue SB	Wed NB	Wed SB	Thu NB	Thu SB	Fri NB	Fri SB	Sat NB	Sat SB	Sun NB	Sun SB	Week Average NB	Week Average SB
12:00 AM	*	*	0	1	2	1	0	0	*	*	*	*	*	*	1	1
01:00	*	*	1	0	0	0	1	0	*	*	*	*	*	*	1	0
02:00	*	*	0	0	0	0	0	1	*	*	*	*	*	*	0	0
03:00	*	*	0	0	0	0	0	0	*	*	*	*	*	*	0	0
04:00	*	*	0	0	0	0	0	1	*	*	*	*	*	*	0	0
05:00	*	*	0	4	0	3	0	1	*	*	*	*	*	*	0	3
06:00	*	*	7	12	5	5	3	4	*	*	*	*	*	*	5	7
07:00	*	*	10	24	10	34	8	21	*	*	*	*	*	*	9	26
08:00	*	*	14	**42**	**12**	**39**	14	**42**	*	*	*	*	*	*	13	**41**
09:00	*	*	**17**	19	9	22	**21**	34	*	*	*	*	*	*	**16**	25
10:00	*	*	8	22	7	20	18	20	*	*	*	*	*	*	11	21
11:00	*	*	15	23	12	20	14	24	*	*	*	*	*	*	14	22
12:00 PM	*	*	14	23	15	13	10	14	*	*	*	*	*	*	13	17
01:00	*	*	7	14	14	12	23	10	*	*	*	*	*	*	15	12
02:00	*	*	16	23	**24**	28	9	20	*	*	*	*	*	*	16	**24**
03:00	*	*	18	12	16	24	21	**22**	*	*	*	*	*	*	18	19
04:00	*	*	25	22	22	**29**	20	16	*	*	*	*	*	*	22	22
05:00	*	*	**30**	**28**	20	14	**34**	11	*	*	*	*	*	*	**28**	18
06:00	*	*	24	15	14	13	21	16	*	*	*	*	*	*	20	15
07:00	*	*	4	6	11	9	10	3	*	*	*	*	*	*	8	6
08:00	*	*	11	5	9	6	10	4	*	*	*	*	*	*	10	5
09:00	*	*	7	4	4	2	2	4	*	*	*	*	*	*	4	3
10:00	*	*	1	0	4	6	2	6	*	*	*	*	*	*	2	4
11:00	*	*	1	0	0	2	4	2	*	*	*	*	*	*	2	1
Lane	0	0	230	299	210	302	245	276	0	0	0	0	0	0	228	292
Day	0		529		512		521		0		0		0		520	
AM Peak	-	-	09:00	08:00	08:00	08:00	09:00	08:00	-	-	-	-	-	-	09:00	08:00
Vol.	-	-	17	42	12	39	21	42	-	-	-	-	-	-	16	41
PM Peak	-	-	17:00	17:00	14:00	16:00	17:00	15:00	-	-	-	-	-	-	17:00	14:00
Vol.	-	-	30	28	24	29	34	22	-	-	-	-	-	-	28	24

Comb. Total	0	529	512	521	0	0	0	520

ADT ADT 521 AADT 521

Page 1

Location: KALMIA AVE W/O PAONIA ST
City: BOULDER
County: BOULDER
Direction: EASTBOUND-WESTBOUND

COUNTER MEASURES INC.

1889 YORK STREET
DENVER,COLORADO 80206
303-333-7409

Site Code: 021509
Station ID: 021509

Start Time	15-Feb-16 EB	15-Feb-16 WB	Tue EB	Tue WB	Wed EB	Wed WB	Thu EB	Thu WB	Fri EB	Fri WB	Sat EB	Sat WB	Sun EB	Sun WB	Week Average EB	Week Average WB
12:00 AM	*	*	2	1	9	2	3	3	*	*	*	*	*	*	5	2
01:00	*	*	5	1	2	3	2	0	*	*	*	*	*	*	3	1
02:00	*	*	2	1	1	1	0	1	*	*	*	*	*	*	1	1
03:00	*	*	1	1	1	1	2	1	*	*	*	*	*	*	1	1
04:00	*	*	0	1	0	1	0	2	*	*	*	*	*	*	0	1
05:00	*	*	0	8	1	7	1	6	*	*	*	*	*	*	1	7
06:00	*	*	12	22	9	21	12	19	*	*	*	*	*	*	11	21
07:00	*	*	29	65	36	60	40	60	*	*	*	*	*	*	35	62
08:00	*	*	88	**110**	97	90	96	96	*	*	*	*	*	*	94	99
09:00	*	*	**102**	88	**122**	**112**	**142**	**126**	*	*	*	*	*	*	**122**	**109**
10:00	*	*	36	49	50	58	54	64	*	*	*	*	*	*	47	57
11:00	*	*	40	71	66	97	81	108	*	*	*	*	*	*	62	92
12:00 PM	*	*	88	74	84	66	54	69	*	*	*	*	*	*	75	70
01:00	*	*	66	58	71	74	85	80	*	*	*	*	*	*	74	71
02:00	*	*	67	82	89	**96**	62	**102**	*	*	*	*	*	*	73	**93**
03:00	*	*	68	60	78	90	64	66	*	*	*	*	*	*	70	72
04:00	*	*	79	87	68	76	80	68	*	*	*	*	*	*	76	77
05:00	*	*	**110**	**88**	**94**	69	**98**	58	*	*	*	*	*	*	**101**	72
06:00	*	*	70	41	80	45	83	49	*	*	*	*	*	*	78	45
07:00	*	*	49	34	75	38	42	29	*	*	*	*	*	*	55	34
08:00	*	*	34	22	37	32	36	30	*	*	*	*	*	*	36	28
09:00	*	*	31	16	30	34	28	14	*	*	*	*	*	*	30	21
10:00	*	*	11	7	17	18	14	24	*	*	*	*	*	*	14	16
11:00	*	*	9	7	8	8	19	10	*	*	*	*	*	*	12	8
Lane	0	0	999	994	1125	1099	1098	1085	0	0	0	0	0	0	1076	1060
Day	0		1993		2224		2183		0		0		0		2136	
AM Peak	-	-	09:00	08:00	09:00	09:00	09:00	09:00	-	-	-	-	-	-	09:00	09:00
Vol.	-	-	102	110	122	112	142	126	-	-	-	-	-	-	122	109
PM Peak	-	-	17:00	17:00	17:00	14:00	17:00	14:00	-	-	-	-	-	-	17:00	14:00
Vol.	-	-	110	88	94	96	98	102	-	-	-	-	-	-	101	93

Comb. Total	0	1993	2224	2183	0	0	0	2136

ADT ADT 2,133 AADT 2,133

Page 1

Location: KALMIA AVE E/O 28TH ST
City: BOULDER
County: BOULDER
Direction: WESTBOUND-EASTBOUND

COUNTER MEASURES INC.

1889 YORK STREET
DENVER,COLORADO 80206
303-333-7409

Site Code: 021516
Station ID: 021516

Start	15-Feb-16		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	*	*	2	6	7	18	6	9	*	*	*	*	*	*	5	11
01:00	*	*	4	8	2	4	1	6	*	*	*	*	*	*	2	6
02:00	*	*	1	0	2	2	2	2	*	*	*	*	*	*	2	1
03:00	*	*	1	2	4	4	1	2	*	*	*	*	*	*	2	3
04:00	*	*	5	3	1	0	4	4	*	*	*	*	*	*	3	2
05:00	*	*	19	4	15	5	13	6	*	*	*	*	*	*	16	5
06:00	*	*	43	18	41	14	38	22	*	*	*	*	*	*	41	18
07:00	*	*	138	60	128	62	127	66	*	*	*	*	*	*	131	63
08:00	*	*	**179**	**154**	160	**158**	180	**177**	*	*	*	*	*	*	**173**	**163**
09:00	*	*	140	118	**161**	153	**190**	161	*	*	*	*	*	*	164	144
10:00	*	*	97	72	98	84	136	98	*	*	*	*	*	*	110	85
11:00	*	*	95	91	147	106	156	121	*	*	*	*	*	*	133	106
12:00 PM	*	*	130	139	117	134	106	116	*	*	*	*	*	*	118	130
01:00	*	*	108	108	116	110	118	109	*	*	*	*	*	*	114	109
02:00	*	*	122	124	**148**	136	**144**	123	*	*	*	*	*	*	**138**	128
03:00	*	*	112	124	141	134	108	122	*	*	*	*	*	*	120	127
04:00	*	*	130	146	121	140	128	138	*	*	*	*	*	*	126	141
05:00	*	*	**137**	**201**	97	160	118	**186**	*	*	*	*	*	*	117	**182**
06:00	*	*	74	127	102	**167**	89	136	*	*	*	*	*	*	88	143
07:00	*	*	55	99	66	126	53	90	*	*	*	*	*	*	58	105
08:00	*	*	38	77	60	76	44	70	*	*	*	*	*	*	47	74
09:00	*	*	40	69	43	60	29	58	*	*	*	*	*	*	37	62
10:00	*	*	15	26	20	34	33	30	*	*	*	*	*	*	23	30
11:00	*	*	10	17	10	12	11	26	*	*	*	*	*	*	10	18
Lane	0	0	1695	1793	1807	1899	1835	1878	0	0	0	0	0	0	1778	1856
Day	0		3488		3706		3713		0		0		0		3634	
AM Peak	-	-	08:00	08:00	09:00	08:00	09:00	08:00	-	-	-	-	-	-	08:00	08:00
Vol.	-	-	179	154	161	158	190	177	-	-	-	-	-	-	173	163
PM Peak	-	-	17:00	17:00	14:00	18:00	14:00	17:00	-	-	-	-	-	-	14:00	17:00
Vol.	-	-	137	201	148	167	144	186	-	-	-	-	-	-	138	182

Comb. Total	0	3488	3706	3713	0	0	0	3634

ADT ADT 3,636 AADT 3,636

Page 1

Location: PALO PKWY E/O 28TH ST
City: BOULDER
County: BOULDER
Direction: EASTBOUND-WESTBOUND

COUNTER MEASURES INC.

1889 YORK STREET
DENVER,COLORADO 80206
303-333-7409

Site Code: 021506
Station ID: 021506

Start	15-Feb-16		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	14	2	12	8	17	10	*	*	*	*	*	*	14	7
01:00	*	*	8	6	4	3	3	2	*	*	*	*	*	*	5	4
02:00	*	*	3	1	4	1	2	3	*	*	*	*	*	*	3	2
03:00	*	*	1	2	2	1	2	2	*	*	*	*	*	*	2	2
04:00	*	*	8	4	3	5	5	4	*	*	*	*	*	*	5	4
05:00	*	*	26	29	18	21	18	21	*	*	*	*	*	*	21	24
06:00	*	*	52	56	48	56	46	51	*	*	*	*	*	*	49	54
07:00	*	*	88	**167**	91	**160**	86	144	*	*	*	*	*	*	88	157
08:00	*	*	101	159	100	153	97	**190**	*	*	*	*	*	*	99	**167**
09:00	*	*	98	120	98	116	104	119	*	*	*	*	*	*	100	118
10:00	*	*	**116**	92	111	114	132	114	*	*	*	*	*	*	120	107
11:00	*	*	104	107	**130**	124	**141**	134	*	*	*	*	*	*	**125**	122
12:00 PM	*	*	125	88	126	144	123	120	*	*	*	*	*	*	125	117
01:00	*	*	129	116	128	100	128	109	*	*	*	*	*	*	128	108
02:00	*	*	109	**144**	120	132	122	122	*	*	*	*	*	*	117	133
03:00	*	*	130	114	152	148	120	**148**	*	*	*	*	*	*	134	137
04:00	*	*	150	138	167	139	159	136	*	*	*	*	*	*	159	**138**
05:00	*	*	**180**	112	**182**	**164**	**168**	138	*	*	*	*	*	*	**177**	138
06:00	*	*	159	114	147	102	146	113	*	*	*	*	*	*	151	110
07:00	*	*	82	52	155	62	116	58	*	*	*	*	*	*	118	57
08:00	*	*	90	56	81	53	88	45	*	*	*	*	*	*	86	51
09:00	*	*	65	24	60	28	57	29	*	*	*	*	*	*	61	27
10:00	*	*	32	22	28	26	36	26	*	*	*	*	*	*	32	25
11:00	*	*	18	7	28	8	18	9	*	*	*	*	*	*	21	8
Lane	0	0	1888	1732	1995	1868	1934	1847	0	0	0	0	0	0	1940	1817
Day	0		3620		3863		3781		0		0		0		3757	
AM Peak	-	-	10:00	07:00	11:00	07:00	11:00	08:00	-	-	-	-	-	-	11:00	08:00
Vol.	-	-	116	167	130	160	141	190	-	-	-	-	-	-	125	167
PM Peak	-	-	17:00	14:00	17:00	17:00	17:00	15:00	-	-	-	-	-	-	17:00	16:00
Vol.	-	-	180	144	182	164	168	148	-	-	-	-	-	-	177	138

Comb. Total	0	3620	3863	3781	0	0	0	3757

ADT ADT 3,755 AADT 3,755

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board, 2010

SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

LOS	Average Vehicle Delay sec/vehicle	Operational Characteristics
A	<10 seconds	Describes operations with low control delay, up to 10 sec/veh. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	10 to 20 seconds	Describes operations with control delay greater than 10 seconds and up to 20 sec/veh. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20 to 35 seconds	Describes operations with control delay greater than 20 and up to 35 sec/veh. These higher delays may result from only fair progression, longer cycle length, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35 to 55 seconds	Describes operations with control delay greater than 35 and up to 55 sec/veh. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55 to 80 seconds	Describes operations with control delay greater than 55 and up to 80 sec/veh. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.
F	>80 seconds	Describes operations with control delay in excess of 80 sec/veh. This level, considered unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board, 2010

UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

LOS	Average Vehicle Control Delay	Operational Characteristics
A	<10 seconds	Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn.
B	10 to 15 seconds	Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. The delay could be up to 15 seconds. Left-turning vehicles on the uncontrolled street may have to wait to make their turn.
C	15 to 25 seconds	Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane.
D	25 to 35 seconds	This is the point at which a traffic signal may be warranted for this intersection. The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points.
E	35 to 50 seconds	The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. There is a high probability that this intersection will meet traffic signal warrants. The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach.
F	>50 seconds	The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. The only remedy for these long delays is installing a traffic signal or restricting the accesses. The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns.

HCM 2010 Signalized Intersection Summary
3: 28th Street & Winding Trail Drive/Palo Parkway

Existing
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	2	63	177	3	16	19	367	74	15	926	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	306	312	265	297	312	265	300	1335	1135	736	1335	1135
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	1.00	1.00	1.00	0.72	0.72	0.72
Sat Flow, veh/h	1386	1863	1583	1326	1863	1583	562	1863	1583	920	1863	1583
Grp Volume(v), veh/h	6	2	67	188	3	17	20	390	79	16	985	14
Grp Sat Flow(s),veh/h/ln	1386	1863	1583	1326	1863	1583	562	1863	1583	920	1863	1583
Q Serve(g_s), s	0.3	0.1	3.5	13.1	0.1	0.9	1.6	0.0	0.0	0.5	30.2	0.2
Cycle Q Clear(g_c), s	0.5	0.1	3.5	13.1	0.1	0.9	31.7	0.0	0.0	0.5	30.2	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	306	312	265	297	312	265	300	1335	1135	736	1335	1135
V/C Ratio(X)	0.02	0.01	0.25	0.63	0.01	0.06	0.07	0.29	0.07	0.02	0.74	0.01
Avail Cap(c_a), veh/h	498	569	484	480	569	484	300	1335	1135	736	1335	1135
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	32.9	34.3	38.4	32.9	33.3	7.0	0.0	0.0	3.9	8.1	3.8
Incr Delay (d2), s/veh	0.0	0.0	0.5	2.2	0.0	0.1	0.4	0.5	0.1	0.1	3.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	1.4	4.6	0.1	0.3	0.2	0.2	0.0	0.1	11.8	0.1
Lane Grp Delay (d), s/veh	33.2	32.9	34.8	40.6	33.0	33.4	7.5	0.5	0.1	3.9	11.8	3.9
Lane Grp LOS	C	C	C	D	C	C	A	A	A	A	B	A
Approach Vol, veh/h		75			208			489			1015	
Approach Delay, s/veh		34.7			39.9			0.8			11.5	
Approach LOS		C			D			A			B	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		20.9			20.9			74.0			74.0	
Change Period (Y+Rc), s		5.0			5.0			6.0			6.0	
Max Green Setting (Gmax), s		29.0			29.0			68.0			68.0	
Max Q Clear Time (g_c+I1), s		5.5			15.1			33.7			32.2	
Green Ext Time (p_c), s		0.9			0.7			12.7			12.9	

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
6: 28th Street & Kalmia Avenue

Existing
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	11	119	150	21	10	57	437	65	5	1142	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Cap, veh/h	373	31	346	269	281	134	349	2437	1036	581	2384	45
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.65	0.65	0.65	1.00	1.00	1.00
Sat Flow, veh/h	1369	134	1470	1239	1192	570	425	3725	1583	848	3644	69
Grp Volume(v), veh/h	13	0	144	167	0	34	63	486	72	6	648	645
Grp Sat Flow(s),veh/h/ln	1369	0	1603	1239	0	1762	425	1863	1583	848	1863	1851
Q Serve(g_s), s	0.8	0.0	7.7	13.3	0.0	1.5	6.1	5.3	1.7	0.1	0.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	7.7	20.9	0.0	1.5	6.1	5.3	1.7	5.3	0.0	0.0
Prop In Lane	1.00		0.92	1.00		0.32	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	373	0	378	269	0	415	349	2437	1036	581	1218	1210
V/C Ratio(X)	0.03	0.00	0.38	0.62	0.00	0.08	0.18	0.20	0.07	0.01	0.53	0.53
Avail Cap(c_a), veh/h	460	0	480	349	0	528	349	2437	1036	581	1218	1210
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.64	0.64	0.64
Uniform Delay (d), s/veh	31.1	0.0	32.6	41.4	0.0	30.2	7.1	7.0	6.4	0.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.6	2.3	0.0	0.1	1.1	0.2	0.1	0.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	3.2	4.4	0.0	0.7	0.7	2.2	0.6	0.0	0.4	0.4
Lane Grp Delay (d), s/veh	31.2	0.0	33.2	43.7	0.0	30.3	8.3	7.2	6.5	0.2	1.1	1.1
Lane Grp LOS	C		C	D		C	A	A	A	A	A	A
Approach Vol, veh/h		157			201			621			1299	
Approach Delay, s/veh		33.1			41.4			7.2			1.1	
Approach LOS		C			D			A			A	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		29.5			29.5			72.0			72.0	
Change Period (Y+Rc), s		5.6			5.6			5.6			5.6	
Max Green Setting (Gmax), s		30.4			30.4			66.4			66.4	
Max Q Clear Time (g_c+I1), s		9.7			22.9			8.1			7.3	
Green Ext Time (p_c), s		1.6			1.0			18.9			19.0	

Intersection Summary												
HCM 2010 Ctrl Delay			8.5									
HCM 2010 LOS			A									

Notes

HCM 2010 TWSC
9: Palo Parkway & 30th Street

Existing
AM Peak

Intersection	
Intersection Delay, s/veh	5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	26	21	40	22	10	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	22	43	23	11	88

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	66	0	-	0	132	54
Stage 1	-	-	-	-	54	-
Stage 2	-	-	-	-	78	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1536	-	-	-	862	1013
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	945	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1536	-	-	-	846	1013
Mov Capacity-2 Maneuver	-	-	-	-	846	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	9
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1536	-	-	-	992
HCM Lane V/C Ratio	0.018	-	-	-	0.1
HCM Control Delay (s)	7.387	0	-	-	9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.055	-	-	-	0.331

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
12: Kalmia Avenue & Paonia Street

Existing
AM Peak

Intersection	
Intersection Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	11	36	64	0	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	43	77	0	0	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	77	0	-	0	147	77
Stage 1	-	-	-	-	77	-
Stage 2	-	-	-	-	70	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1522	-	-	-	845	984
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	953	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1522	-	-	-	837	984
Mov Capacity-2 Maneuver	-	-	-	-	837	-
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	944	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	8.8
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1522	-	-	-	984
HCM Lane V/C Ratio	0.009	-	-	-	0.039
HCM Control Delay (s)	7.386	0	-	-	8.8
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.026	-	-	-	0.122

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 Signalized Intersection Summary
3: 28th Street & Winding Trail Drive/Palo Parkway

Existing
PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	0	33	97	0	8	52	961	154	14	662	11
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	205	178	151	202	178	151	567	1481	1259	450	1481	1259
Arrive On Green	0.10	0.00	0.10	0.10	0.00	0.10	1.00	1.00	1.00	0.80	0.80	0.80
Sat Flow, veh/h	1402	1863	1583	1368	1863	1583	737	1863	1583	476	1863	1583
Grp Volume(v), veh/h	12	0	35	102	0	8	55	1012	162	15	697	12
Grp Sat Flow(s),veh/h/ln	1402	1863	1583	1368	1863	1583	737	1863	1583	476	1863	1583
Q Serve(g_s), s	0.8	0.0	2.1	7.3	0.0	0.5	1.3	0.0	0.0	0.7	12.3	0.2
Cycle Q Clear(g_c), s	0.8	0.0	2.1	7.3	0.0	0.5	13.6	0.0	0.0	0.7	12.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	178	151	202	178	151	567	1481	1259	450	1481	1259
V/C Ratio(X)	0.06	0.00	0.23	0.50	0.00	0.05	0.10	0.68	0.13	0.03	0.47	0.01
Avail Cap(c_a), veh/h	476	537	456	466	537	456	567	1481	1259	450	1481	1259
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	0.0	42.1	44.5	0.0	41.4	1.0	0.0	0.0	2.2	3.4	2.1
Incr Delay (d2), s/veh	0.1	0.0	0.8	1.9	0.0	0.1	0.3	2.3	0.2	0.1	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.9	2.7	0.0	0.2	0.1	1.0	0.1	0.1	4.1	0.0
Lane Grp Delay (d), s/veh	41.6	0.0	42.9	46.4	0.0	41.5	1.4	2.3	0.2	2.3	4.4	2.1
Lane Grp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		47			110			1229			724	
Approach Delay, s/veh		42.5			46.1			2.0			4.4	
Approach LOS		D			D			A			A	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		14.6			14.6			86.0			86.0	
Change Period (Y+Rc), s		5.0			5.0			6.0			6.0	
Max Green Setting (Gmax), s		29.0			29.0			80.0			80.0	
Max Q Clear Time (g_c+I1), s		4.1			9.3			15.6			14.3	
Green Ext Time (p_c), s		0.4			0.4			22.1			22.2	

Intersection Summary												
HCM 2010 Ctrl Delay			6.0									
HCM 2010 LOS			A									

Notes

HCM 2010 Signalized Intersection Summary
6: 28th Street & Kalmia Avenue

Existing
PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	15	75	104	12	18	88	1103	163	12	761	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Cap, veh/h	277	47	229	215	113	173	528	2706	1150	292	2622	71
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.73	0.73	0.73	1.00	1.00	1.00
Sat Flow, veh/h	1370	276	1349	1290	663	1020	635	3725	1583	381	3610	98
Grp Volume(v), veh/h	46	0	100	116	0	33	98	1226	181	13	437	432
Grp Sat Flow(s),veh/h/ln	1370	0	1625	1290	0	1683	635	1863	1583	381	1863	1845
Q Serve(g_s), s	3.2	0.0	5.9	9.4	0.0	1.8	5.4	14.5	3.8	0.7	0.0	0.0
Cycle Q Clear(g_c), s	5.0	0.0	5.9	15.3	0.0	1.8	5.4	14.5	3.8	15.2	0.0	0.0
Prop In Lane	1.00		0.83	1.00		0.61	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	277	0	276	215	0	286	528	2706	1150	292	1353	1341
V/C Ratio(X)	0.17	0.00	0.36	0.54	0.00	0.12	0.19	0.45	0.16	0.04	0.32	0.32
Avail Cap(c_a), veh/h	430	0	458	360	0	474	528	2706	1150	292	1353	1341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	40.0	0.0	39.6	46.4	0.0	37.9	4.8	6.0	4.6	1.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.8	2.1	0.0	0.2	0.8	0.5	0.3	0.3	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.0	2.5	3.3	0.0	0.8	0.8	5.5	1.2	0.1	0.2	0.2
Lane Grp Delay (d), s/veh	40.3	0.0	40.4	48.5	0.0	38.1	5.6	6.6	4.9	1.7	0.6	0.6
Lane Grp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		146			149			1505			882	
Approach Delay, s/veh		40.4			46.2			6.3			0.6	
Approach LOS		D			D			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	23.9	23.9	84.0	84.0
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	30.4	30.4	78.4	78.4
Max Q Clear Time (g_c+I1), s	7.9	17.3	16.5	17.2
Green Ext Time (p_c), s	1.2	1.0	28.2	28.1

Intersection Summary	
HCM 2010 Ctrl Delay	8.5
HCM 2010 LOS	A

Notes

HCM 2010 TWSC
9: Palo Parkway & 30th Street

Existing
PM Peak

Intersection	
Intersection Delay, s/veh	6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	73	27	12	15	18	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	29	13	16	20	58

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	29	0	-	0	209	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	188	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1584	-	-	-	779	1056
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	844	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1584	-	-	-	739	1056
Mov Capacity-2 Maneuver	-	-	-	-	739	-
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	801	-

Approach	EB	WB	SB
HCM Control Delay, s	5.4	0	9.1
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1584	-	-	-	952
HCM Lane V/C Ratio	0.05	-	-	-	0.081
HCM Control Delay (s)	7.393	0	-	-	9.1
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.158	-	-	-	0.264

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
12: Kalmia Avenue & Paonia Street

Existing
PM Peak

Intersection	
Intersection Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	27	83	53	0	1	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	111	71	0	1	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	71	0	-	0	254	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	183	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1529	-	-	-	735	991
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	848	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1529	-	-	-	717	991
Mov Capacity-2 Maneuver	-	-	-	-	717	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	827	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	8.8
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1529	-	-	-	976
HCM Lane V/C Ratio	0.024	-	-	-	0.034
HCM Control Delay (s)	7.411	0	-	-	8.8
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.072	-	-	-	0.106

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 Signalized Intersection Summary
3: 28th Street & Winding Trail Drive/Palo Parkway

2020 Background
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	2	65	190	5	20	20	445	80	18	945	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	317	331	282	309	331	282	276	1318	1120	675	1318	1120
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	1.00	1.00	1.00	0.71	0.71	0.71
Sat Flow, veh/h	1379	1863	1583	1324	1863	1583	551	1863	1583	848	1863	1583
Grp Volume(v), veh/h	7	2	69	202	5	21	21	473	85	19	1005	15
Grp Sat Flow(s),veh/h/ln	1379	1863	1583	1324	1863	1583	551	1863	1583	848	1863	1583
Q Serve(g_s), s	0.4	0.1	3.6	14.2	0.2	1.1	1.9	0.0	0.0	0.6	32.9	0.3
Cycle Q Clear(g_c), s	0.6	0.1	3.6	14.3	0.2	1.1	34.8	0.0	0.0	0.6	32.9	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	317	331	282	309	331	282	276	1318	1120	675	1318	1120
V/C Ratio(X)	0.02	0.01	0.24	0.65	0.02	0.07	0.08	0.36	0.08	0.03	0.76	0.01
Avail Cap(c_a), veh/h	488	562	478	473	562	478	276	1318	1120	675	1318	1120
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	32.5	34.0	38.4	32.6	32.9	8.4	0.0	0.0	4.2	8.9	4.1
Incr Delay (d2), s/veh	0.0	0.0	0.4	2.3	0.0	0.1	0.5	0.7	0.1	0.1	4.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	1.5	5.0	0.1	0.4	0.2	0.3	0.0	0.1	13.5	0.1
Lane Grp Delay (d), s/veh	32.8	32.5	34.4	40.7	32.6	33.0	8.9	0.7	0.1	4.3	13.1	4.2
Lane Grp LOS	C	C	C	D	C	C	A	A	A	A	B	A
Approach Vol, veh/h		78			228			579			1039	
Approach Delay, s/veh		34.2			39.8			1.0			12.8	
Approach LOS		C			D			A			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		22.1			22.1			74.0			74.0	
Change Period (Y+Rc), s		5.0			5.0			6.0			6.0	
Max Green Setting (Gmax), s		29.0			29.0			68.0			68.0	
Max Q Clear Time (g_c+I1), s		5.6			16.3			36.8			34.9	
Green Ext Time (p_c), s		0.9			0.8			13.5			13.8	

Intersection Summary												
HCM 2010 Ctrl Delay			13.3									
HCM 2010 LOS			B									

Notes

HCM 2010 Signalized Intersection Summary
6: 28th Street & Kalmia Avenue

2020 Background
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	12	120	165	24	12	60	520	75	7	1170	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Cap, veh/h	383	35	361	282	294	141	335	2400	1020	516	2345	47
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.64	0.64	0.64	1.00	1.00	1.00
Sat Flow, veh/h	1362	143	1462	1237	1189	573	412	3725	1583	771	3640	73
Grp Volume(v), veh/h	14	0	146	183	0	40	67	578	83	8	665	661
Grp Sat Flow(s),veh/h/ln	1362	0	1605	1237	0	1762	412	1863	1583	771	1863	1850
Q Serve(g_s), s	0.8	0.0	7.8	14.8	0.0	1.8	7.1	6.7	2.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	7.8	22.6	0.0	1.8	7.1	6.7	2.0	6.8	0.0	0.0
Prop In Lane	1.00		0.91	1.00		0.32	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	383	0	397	282	0	435	335	2400	1020	516	1200	1192
V/C Ratio(X)	0.04	0.00	0.37	0.65	0.00	0.09	0.20	0.24	0.08	0.02	0.55	0.55
Avail Cap(c_a), veh/h	448	0	473	341	0	520	335	2400	1020	516	1200	1192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	30.9	0.0	32.1	41.5	0.0	29.9	7.8	7.7	6.9	0.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.6	3.1	0.0	0.1	1.3	0.2	0.2	0.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	3.2	4.9	0.0	0.8	0.7	2.7	0.7	0.0	0.4	0.4
Lane Grp Delay (d), s/veh	30.9	0.0	32.7	44.6	0.0	30.0	9.1	8.0	7.0	0.4	1.1	1.1
Lane Grp LOS	C		C	D		C	A	A	A	A	A	A
Approach Vol, veh/h		160			223			728			1334	
Approach Delay, s/veh		32.6			42.0			8.0			1.1	
Approach LOS		C			D			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	31.1	31.1	72.0	72.0
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	30.4	30.4	66.4	66.4
Max Q Clear Time (g_c+I1), s	9.8	24.6	9.1	8.8
Green Ext Time (p_c), s	1.7	0.9	21.4	21.4

Intersection Summary	
HCM 2010 Ctrl Delay	8.9
HCM 2010 LOS	A

Notes

HCM 2010 TWSC
9: Palo Parkway & 30th Street

2020 Background
AM Peak

Intersection	
Intersection Delay, s/veh	4.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	27	25	48	25	12	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	27	51	27	13	90

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	78	0	-	0	148	64
Stage 1	-	-	-	-	64	-
Stage 2	-	-	-	-	84	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1520	-	-	-	844	1000
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	939	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1520	-	-	-	828	1000
Mov Capacity-2 Maneuver	-	-	-	-	828	-
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	921	-

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	9.1
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1520	-	-	-	975
HCM Lane V/C Ratio	0.019	-	-	-	0.106
HCM Control Delay (s)	7.414	0	-	-	9.1
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.058	-	-	-	0.354

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
12: Kalmia Avenue & Paonia Street

2020 Background
AM Peak

Intersection	
Intersection Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	15	40	65	1	1	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	48	78	1	1	48

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	80	0	-	0	163	79
Stage 1	-	-	-	-	79	-
Stage 2	-	-	-	-	84	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1518	-	-	-	828	981
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	939	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1518	-	-	-	818	981
Mov Capacity-2 Maneuver	-	-	-	-	818	-
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	8.9
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1518	-	-	-	976
HCM Lane V/C Ratio	0.012	-	-	-	0.051
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.036	-	-	-	0.16

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 Signalized Intersection Summary
3: 28th Street & Winding Trail Drive/Palo Parkway

2020 Background
PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	1	35	105	1	10	54	980	165	18	675	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	215	193	164	211	193	164	549	1468	1248	435	1468	1248
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	1.00	1.00	1.00	0.79	0.79	0.79
Sat Flow, veh/h	1397	1863	1583	1364	1863	1583	727	1863	1583	462	1863	1583
Grp Volume(v), veh/h	13	1	37	111	1	11	57	1032	174	19	711	13
Grp Sat Flow(s),veh/h/ln	1397	1863	1583	1364	1863	1583	727	1863	1583	462	1863	1583
Q Serve(g_s), s	0.9	0.0	2.2	8.1	0.0	0.6	1.5	0.0	0.0	0.9	13.3	0.2
Cycle Q Clear(g_c), s	0.9	0.0	2.2	8.1	0.0	0.6	14.7	0.0	0.0	0.9	13.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	193	164	211	193	164	549	1468	1248	435	1468	1248
V/C Ratio(X)	0.06	0.01	0.23	0.53	0.01	0.07	0.10	0.70	0.14	0.04	0.48	0.01
Avail Cap(c_a), veh/h	469	532	452	460	532	452	549	1468	1248	435	1468	1248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	40.8	41.8	44.5	40.8	41.1	1.2	0.0	0.0	2.4	3.7	2.3
Incr Delay (d2), s/veh	0.1	0.0	0.7	2.0	0.0	0.2	0.3	2.5	0.2	0.2	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.9	3.0	0.0	0.3	0.1	1.0	0.1	0.1	4.6	0.1
Lane Grp Delay (d), s/veh	41.3	40.8	42.5	46.5	40.8	41.3	1.6	2.5	0.2	2.6	4.8	2.3
Lane Grp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		51			123			1263			743	
Approach Delay, s/veh		42.1			46.0			2.2			4.7	
Approach LOS		D			D			A			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		15.5			15.5			86.0			86.0	
Change Period (Y+Rc), s		5.0			5.0			6.0			6.0	
Max Green Setting (Gmax), s		29.0			29.0			80.0			80.0	
Max Q Clear Time (g_c+I1), s		4.2			10.1			16.7			15.3	
Green Ext Time (p_c), s		0.5			0.5			23.2			23.3	

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

Notes

HCM 2010 Signalized Intersection Summary
6: 28th Street & Kalmia Avenue

2020 Background
PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	43	16	75	115	14	20	90	1135	180	14	780	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Cap, veh/h	284	52	239	226	127	175	513	2677	1138	274	2593	72
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.72	0.72	0.72	1.00	1.00	1.00
Sat Flow, veh/h	1364	290	1337	1288	712	978	622	3725	1583	362	3608	100
Grp Volume(v), veh/h	48	0	101	128	0	38	100	1261	200	16	448	443
Grp Sat Flow(s),veh/h/ln	1364	0	1627	1288	0	1690	622	1863	1583	362	1863	1845
Q Serve(g_s), s	3.3	0.0	5.9	10.5	0.0	2.1	5.9	15.7	4.4	1.0	0.0	0.0
Cycle Q Clear(g_c), s	5.4	0.0	5.9	16.5	0.0	2.1	5.9	15.7	4.4	16.7	0.0	0.0
Prop In Lane	1.00		0.82	1.00		0.58	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	284	0	291	226	0	302	513	2677	1138	274	1338	1326
V/C Ratio(X)	0.17	0.00	0.35	0.57	0.00	0.13	0.20	0.47	0.18	0.06	0.33	0.33
Avail Cap(c_a), veh/h	420	0	453	355	0	471	513	2677	1138	274	1338	1326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	39.9	0.0	39.2	46.4	0.0	37.6	5.2	6.5	4.9	1.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.7	2.2	0.0	0.2	0.8	0.6	0.3	0.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	2.5	3.6	0.0	0.9	0.8	6.0	1.5	0.1	0.2	0.2
Lane Grp Delay (d), s/veh	40.2	0.0	39.9	48.6	0.0	37.8	6.0	7.1	5.3	2.0	0.6	0.6
Lane Grp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		149			166			1561			907	
Approach Delay, s/veh		40.0			46.2			6.8			0.6	
Approach LOS		D			D			A			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		25.1			25.1			84.0			84.0	
Change Period (Y+Rc), s		5.6			5.6			5.6			5.6	
Max Green Setting (Gmax), s		30.4			30.4			78.4			78.4	
Max Q Clear Time (g_c+I1), s		7.9			18.5			17.7			18.7	
Green Ext Time (p_c), s		1.3			1.0			29.6			29.4	

Intersection Summary	
HCM 2010 Ctrl Delay	8.9
HCM 2010 LOS	A

Notes

HCM 2010 TWSC
9: Palo Parkway & 30th Street

2020 Background
PM Peak

Intersection	
Intersection Delay, s/veh	5.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	75	35	18	18	20	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	38	20	20	22	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	39	0	-	0	230	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	201	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1571	-	-	-	758	1046
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	833	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1571	-	-	-	718	1046
Mov Capacity-2 Maneuver	-	-	-	-	718	-
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	789	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	9.2
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1571	-	-	-	932
HCM Lane V/C Ratio	0.052	-	-	-	0.087
HCM Control Delay (s)	7.417	0	-	-	9.2
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.164	-	-	-	0.287

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
12: Kalmia Avenue & Paonia Street

2020 Background
PM Peak

Intersection	
Intersection Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	35	85	55	1	1	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	113	73	1	1	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	75	0	-	0	281	74
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	207	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1524	-	-	-	709	988
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	828	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1524	-	-	-	686	988
Mov Capacity-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	801	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.9
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1524	-	-	-	974
HCM Lane V/C Ratio	0.031	-	-	-	0.042
HCM Control Delay (s)	7.437	0	-	-	8.9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.095	-	-	-	0.133

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 Signalized Intersection Summary
3: 28th Street & Winding Trail Drive/Palo Parkway

2020 Total
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	2	65	198	5	21	20	445	83	18	945	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	325	343	292	317	343	292	269	1308	1112	668	1308	1112
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	1.00	1.00	1.00	0.70	0.70	0.70
Sat Flow, veh/h	1378	1863	1583	1324	1863	1583	551	1863	1583	845	1863	1583
Grp Volume(v), veh/h	7	2	69	211	5	22	21	473	88	19	1005	15
Grp Sat Flow(s),veh/h/ln	1378	1863	1583	1324	1863	1583	551	1863	1583	845	1863	1583
Q Serve(g_s), s	0.4	0.1	3.6	15.0	0.2	1.1	1.9	0.0	0.0	0.7	33.8	0.3
Cycle Q Clear(g_c), s	0.6	0.1	3.6	15.1	0.2	1.1	35.8	0.0	0.0	0.7	33.8	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	343	292	317	343	292	269	1308	1112	668	1308	1112
V/C Ratio(X)	0.02	0.01	0.24	0.66	0.01	0.08	0.08	0.36	0.08	0.03	0.77	0.01
Avail Cap(c_a), veh/h	484	558	474	470	558	474	269	1308	1112	668	1308	1112
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	32.3	33.7	38.4	32.3	32.7	8.9	0.0	0.0	4.4	9.3	4.3
Incr Delay (d2), s/veh	0.0	0.0	0.4	2.4	0.0	0.1	0.6	0.8	0.1	0.1	4.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	1.5	5.3	0.1	0.5	0.3	0.3	0.0	0.1	13.6	0.1
Lane Grp Delay (d), s/veh	32.6	32.3	34.1	40.8	32.3	32.8	9.4	0.8	0.1	4.5	13.7	4.4
Lane Grp LOS	C	C	C	D	C	C	A	A	A	A	B	A
Approach Vol, veh/h		78			238			582			1039	
Approach Delay, s/veh		33.9			39.9			1.0			13.4	
Approach LOS		C			D			A			B	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		22.9			22.9			74.0			74.0	
Change Period (Y+Rc), s		5.0			5.0			6.0			6.0	
Max Green Setting (Gmax), s		29.0			29.0			68.0			68.0	
Max Q Clear Time (g_c+I1), s		5.6			17.1			37.8			35.8	
Green Ext Time (p_c), s		1.0			0.8			13.3			13.7	

Intersection Summary			
HCM 2010 Ctrl Delay			13.8
HCM 2010 LOS			B

Notes

HCM 2010 Signalized Intersection Summary
6: 28th Street & Kalmia Avenue

2020 Total
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	12	120	170	24	12	60	523	76	7	1178	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Cap, veh/h	387	36	367	287	298	144	331	2388	1015	511	2333	46
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.64	0.64	0.64	1.00	1.00	1.00
Sat Flow, veh/h	1362	143	1462	1237	1189	573	408	3725	1583	768	3640	72
Grp Volume(v), veh/h	14	0	146	189	0	40	67	581	84	8	669	666
Grp Sat Flow(s),veh/h/ln	1362	0	1605	1237	0	1762	408	1863	1583	768	1863	1850
Q Serve(g_s), s	0.8	0.0	7.8	15.4	0.0	1.8	7.3	6.9	2.1	0.1	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	7.8	23.2	0.0	1.8	7.3	6.9	2.1	7.0	0.0	0.0
Prop In Lane	1.00		0.91	1.00		0.32	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	387	0	403	287	0	442	331	2388	1015	511	1194	1186
V/C Ratio(X)	0.04	0.00	0.36	0.66	0.00	0.09	0.20	0.24	0.08	0.02	0.56	0.56
Avail Cap(c_a), veh/h	445	0	471	340	0	517	331	2388	1015	511	1194	1186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.60	0.60	0.60
Uniform Delay (d), s/veh	30.7	0.0	32.0	41.5	0.0	29.7	8.0	7.9	7.1	0.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.5	3.6	0.0	0.1	1.4	0.2	0.2	0.0	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	3.2	5.2	0.0	0.8	0.8	2.8	0.7	0.0	0.4	0.4
Lane Grp Delay (d), s/veh	30.8	0.0	32.5	45.1	0.0	29.8	9.4	8.2	7.2	0.4	1.1	1.2
Lane Grp LOS	C		C	D		C	A	A	A	A	A	A
Approach Vol, veh/h		160			229			732			1343	
Approach Delay, s/veh		32.4			42.4			8.2			1.1	
Approach LOS		C			D			A			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		31.6			31.6			72.0			72.0	
Change Period (Y+Rc), s		5.6			5.6			5.6			5.6	
Max Green Setting (Gmax), s		30.4			30.4			66.4			66.4	
Max Q Clear Time (g_c+I1), s		9.8			25.2			9.3			9.0	
Green Ext Time (p_c), s		1.7			0.8			21.6			21.7	

Intersection Summary			
HCM 2010 Ctrl Delay			9.1
HCM 2010 LOS			A

Notes

HCM 2010 TWSC
9: Palo Parkway & 30th Street

2020 Total
AM Peak

Intersection	
Intersection Delay, s/veh	4.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	27	28	57	28	13	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	30	61	30	14	90

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	90	0	-	0	163	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	87	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1505	-	-	-	828	985
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	936	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1505	-	-	-	811	985
Mov Capacity-2 Maneuver	-	-	-	-	811	-
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	917	-

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	9.2
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1505	-	-	-	958
HCM Lane V/C Ratio	0.019	-	-	-	0.109
HCM Control Delay (s)	7.439	0	-	-	9.2
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.058	-	-	-	0.365

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
12: Kalmia Avenue & Paonia Street

2020 Total
AM Peak

Intersection	
Intersection Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	16	40	66	1	1	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	48	80	1	1	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	81	0	-	0	167	80
Stage 1	-	-	-	-	80	-
Stage 2	-	-	-	-	87	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1517	-	-	-	823	980
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	936	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1517	-	-	-	812	980
Mov Capacity-2 Maneuver	-	-	-	-	812	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	924	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	8.9
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1517	-	-	-	976
HCM Lane V/C Ratio	0.013	-	-	-	0.056
HCM Control Delay (s)	7.404	0	-	-	8.9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.039	-	-	-	0.176

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
19: Palo Parkway & Site Access

2020 Total
AM Peak

Intersection	
Intersection Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	10	20	0	1	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	11	22	0	1	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	22	0	-	0	44	22
Stage 1	-	-	-	-	22	-
Stage 2	-	-	-	-	22	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1593	-	-	-	967	1055
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	1001	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1593	-	-	-	964	1055
Mov Capacity-2 Maneuver	-	-	-	-	964	-
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	998	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	8.5
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1049
HCM Lane V/C Ratio	0.003	-	-	-	0.018
HCM Control Delay (s)	7.268	0	-	-	8.5
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.01	-	-	-	0.054

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 Signalized Intersection Summary
3: 28th Street & Winding Trail Drive/Palo Parkway

2020 Total
PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	1	35	108	1	11	54	980	175	19	675	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	217	197	167	214	197	167	546	1465	1245	430	1465	1245
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	1.00	1.00	1.00	0.79	0.79	0.79
Sat Flow, veh/h	1395	1863	1583	1364	1863	1583	727	1863	1583	457	1863	1583
Grp Volume(v), veh/h	13	1	37	114	1	12	57	1032	184	20	711	13
Grp Sat Flow(s),veh/h/ln	1395	1863	1583	1364	1863	1583	727	1863	1583	457	1863	1583
Q Serve(g_s), s	0.9	0.0	2.2	8.3	0.0	0.7	1.5	0.0	0.0	1.0	13.4	0.2
Cycle Q Clear(g_c), s	0.9	0.0	2.2	8.4	0.0	0.7	14.9	0.0	0.0	1.0	13.4	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	197	167	214	197	167	546	1465	1245	430	1465	1245
V/C Ratio(X)	0.06	0.01	0.22	0.53	0.01	0.07	0.10	0.70	0.15	0.05	0.49	0.01
Avail Cap(c_a), veh/h	468	531	451	459	531	451	546	1465	1245	430	1465	1245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	40.7	41.7	44.5	40.7	41.0	1.3	0.0	0.0	2.4	3.8	2.3
Incr Delay (d2), s/veh	0.1	0.0	0.7	2.0	0.0	0.2	0.3	2.5	0.2	0.2	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.9	3.0	0.0	0.3	0.2	1.0	0.1	0.1	4.6	0.1
Lane Grp Delay (d), s/veh	41.2	40.7	42.3	46.5	40.7	41.2	1.6	2.5	0.2	2.6	4.9	2.4
Lane Grp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		51			127			1273			744	
Approach Delay, s/veh		42.0			46.0			2.2			4.8	
Approach LOS		D			D			A			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		15.7			15.7			86.0			86.0	
Change Period (Y+Rc), s		5.0			5.0			6.0			6.0	
Max Green Setting (Gmax), s		29.0			29.0			80.0			80.0	
Max Q Clear Time (g_c+I1), s		4.2			10.4			16.9			15.4	
Green Ext Time (p_c), s		0.5			0.5			23.3			23.4	

Intersection Summary												
HCM 2010 Ctrl Delay			6.5									
HCM 2010 LOS			A									

Notes

HCM 2010 Signalized Intersection Summary
6: 28th Street & Kalmia Avenue

2020 Total
PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	43	16	75	120	14	20	90	1145	183	14	783	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Cap, veh/h	289	53	244	231	130	178	509	2666	1133	269	2582	71
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.72	0.72	0.72	1.00	1.00	1.00
Sat Flow, veh/h	1364	290	1337	1288	712	978	620	3725	1583	357	3608	100
Grp Volume(v), veh/h	48	0	101	133	0	38	100	1272	203	16	449	445
Grp Sat Flow(s),veh/h/ln	1364	0	1627	1288	0	1690	620	1863	1583	357	1863	1845
Q Serve(g_s), s	3.3	0.0	5.9	11.0	0.0	2.1	6.0	16.2	4.6	1.1	0.0	0.0
Cycle Q Clear(g_c), s	5.4	0.0	5.9	16.9	0.0	2.1	6.0	16.2	4.6	17.2	0.0	0.0
Prop In Lane	1.00		0.82	1.00		0.58	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	289	0	296	231	0	308	509	2666	1133	269	1333	1320
V/C Ratio(X)	0.17	0.00	0.34	0.58	0.00	0.12	0.20	0.48	0.18	0.06	0.34	0.34
Avail Cap(c_a), veh/h	419	0	451	353	0	469	509	2666	1133	269	1333	1320
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	39.7	0.0	39.1	46.4	0.0	37.5	5.3	6.7	5.1	1.8	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.7	2.3	0.0	0.2	0.9	0.6	0.3	0.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	2.5	3.8	0.0	0.9	0.9	6.2	1.6	0.1	0.2	0.2
Lane Grp Delay (d), s/veh	40.0	0.0	39.7	48.7	0.0	37.7	6.1	7.3	5.4	2.1	0.6	0.6
Lane Grp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		149			171			1575			910	
Approach Delay, s/veh		39.8			46.3			7.0			0.6	
Approach LOS		D			D			A			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		25.6			25.6			84.0			84.0	
Change Period (Y+Rc), s		5.6			5.6			5.6			5.6	
Max Green Setting (Gmax), s		30.4			30.4			78.4			78.4	
Max Q Clear Time (g_c+I1), s		7.9			18.9			18.2			19.2	
Green Ext Time (p_c), s		1.3			1.0			29.9			29.6	

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Notes

HCM 2010 TWSC
9: Palo Parkway & 30th Street

2020 Total
PM Peak

Intersection	
Intersection Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	75	46	22	19	23	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	50	24	21	25	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	45	0	-	0	247	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	213	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1563	-	-	-	741	1039
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	823	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1563	-	-	-	701	1039
Mov Capacity-2 Maneuver	-	-	-	-	701	-
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	779	-

Approach	EB	WB	SB
HCM Control Delay, s	4.6	0	9.4
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1563	-	-	-	910
HCM Lane V/C Ratio	0.052	-	-	-	0.093
HCM Control Delay (s)	7.43	0	-	-	9.4
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.165	-	-	-	0.307

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
12: Kalmia Avenue & Paonia Street

2020 Total
PM Peak

Intersection	
Intersection Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	37	86	56	1	1	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	115	75	1	1	45

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	76	0	-	0	288	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	213	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1523	-	-	-	702	986
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	823	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1523	-	-	-	678	986
Mov Capacity-2 Maneuver	-	-	-	-	678	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	795	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.9
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1523	-	-	-	973
HCM Lane V/C Ratio	0.032	-	-	-	0.048
HCM Control Delay (s)	7.443	0	-	-	8.9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.151

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
19: Palo Parkway & Site Access

2020 Total
PM Peak

Intersection	
Intersection Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	16	20	15	1	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	22	16	1	1	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	17	0	-	0	74	17
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	57	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1600	-	-	-	930	1062
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	966	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1600	-	-	-	920	1062
Mov Capacity-2 Maneuver	-	-	-	-	920	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	955	-

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	8.5
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1600	-	-	-	1046
HCM Lane V/C Ratio	0.011	-	-	-	0.01
HCM Control Delay (s)	7.275	0	-	-	8.5
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.033	-	-	-	0.031

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 Signalized Intersection Summary
3: 28th Street & Winding Trail Drive/Palo Parkway

2035 Background
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	2	70	190	5	20	20	460	80	20	980	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	318	333	283	309	333	283	252	1317	1119	665	1317	1119
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	1.00	1.00	1.00	0.71	0.71	0.71
Sat Flow, veh/h	1379	1863	1583	1318	1863	1583	531	1863	1583	835	1863	1583
Grp Volume(v), veh/h	11	2	74	202	5	21	21	489	85	21	1043	16
Grp Sat Flow(s),veh/h/ln	1379	1863	1583	1318	1863	1583	531	1863	1583	835	1863	1583
Q Serve(g_s), s	0.6	0.1	3.9	14.3	0.2	1.1	2.1	0.0	0.0	0.7	35.9	0.3
Cycle Q Clear(g_c), s	0.8	0.1	3.9	14.4	0.2	1.1	38.0	0.0	0.0	0.7	35.9	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	318	333	283	309	333	283	252	1317	1119	665	1317	1119
V/C Ratio(X)	0.03	0.01	0.26	0.65	0.02	0.07	0.08	0.37	0.08	0.03	0.79	0.01
Avail Cap(c_a), veh/h	488	562	477	471	562	477	252	1317	1119	665	1317	1119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	32.5	34.0	38.4	32.5	32.9	10.0	0.0	0.0	4.2	9.4	4.2
Incr Delay (d2), s/veh	0.0	0.0	0.5	2.3	0.0	0.1	0.6	0.8	0.1	0.1	4.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	1.6	5.0	0.1	0.4	0.3	0.3	0.0	0.1	14.8	0.1
Lane Grp Delay (d), s/veh	32.9	32.5	34.5	40.7	32.5	33.0	10.7	0.8	0.1	4.3	14.3	4.2
Lane Grp LOS	C	C	C	D	C	C	B	A	A	A	B	A
Approach Vol, veh/h		87			228			595			1080	
Approach Delay, s/veh		34.3			39.8			1.0			14.0	
Approach LOS		C			D			A			B	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		22.2			22.2			74.0			74.0	
Change Period (Y+Rc), s		5.0			5.0			6.0			6.0	
Max Green Setting (Gmax), s		29.0			29.0			68.0			68.0	
Max Q Clear Time (g_c+I1), s		5.9			16.4			40.0			37.9	
Green Ext Time (p_c), s		1.0			0.8			13.6			14.1	

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
6: 28th Street & Kalmia Avenue

2035 Background
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	12	120	165	25	13	60	530	75	8	1205	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Cap, veh/h	376	35	354	280	281	146	334	2414	1026	521	2356	49
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.65	0.65	0.65	1.00	1.00	1.00
Sat Flow, veh/h	1360	146	1459	1240	1157	600	407	3725	1583	773	3637	75
Grp Volume(v), veh/h	16	0	143	179	0	41	65	576	82	9	671	666
Grp Sat Flow(s),veh/h/ln	1360	0	1605	1240	0	1757	407	1863	1583	773	1863	1850
Q Serve(g_s), s	0.9	0.0	7.6	14.4	0.0	1.9	6.9	6.6	2.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	2.8	0.0	7.6	22.0	0.0	1.9	6.9	6.6	2.0	6.7	0.0	0.0
Prop In Lane	1.00		0.91	1.00		0.34	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	376	0	390	280	0	427	334	2414	1026	521	1207	1198
V/C Ratio(X)	0.04	0.00	0.37	0.64	0.00	0.10	0.19	0.24	0.08	0.02	0.56	0.56
Avail Cap(c_a), veh/h	449	0	476	346	0	521	334	2414	1026	521	1207	1198
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.57	0.57	0.57
Uniform Delay (d), s/veh	31.2	0.0	32.2	41.4	0.0	30.1	7.6	7.5	6.7	0.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.6	2.7	0.0	0.1	1.3	0.2	0.2	0.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	3.1	4.8	0.0	0.8	0.7	2.7	0.7	0.0	0.4	0.4
Lane Grp Delay (d), s/veh	31.2	0.0	32.8	44.1	0.0	30.2	8.9	7.8	6.9	0.4	1.1	1.1
Lane Grp LOS	C		C	D		C	A	A	A	A	A	A
Approach Vol, veh/h		159			220			723			1346	
Approach Delay, s/veh		32.7			41.5			7.7			1.1	
Approach LOS		C			D			A			A	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		30.5			30.5			72.0			72.0	
Change Period (Y+Rc), s		5.6			5.6			5.6			5.6	
Max Green Setting (Gmax), s		30.4			30.4			66.4			66.4	
Max Q Clear Time (g_c+I1), s		9.6			24.0			8.9			8.7	
Green Ext Time (p_c), s		1.7			0.9			21.6			21.6	

Intersection Summary												
HCM 2010 Ctrl Delay			8.7									
HCM 2010 LOS			A									

Notes

HCM 2010 TWSC
9: Palo Parkway & 30th Street

2035 Background
AM Peak

Intersection	
Intersection Delay, s/veh	5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	30	25	50	25	15	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	27	53	27	16	90

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	80	0	-	0	156	66
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	90	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1518	-	-	-	835	998
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	934	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1518	-	-	-	817	998
Mov Capacity-2 Maneuver	-	-	-	-	817	-
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	914	-

Approach	EB	WB	SB
HCM Control Delay, s	4	0	9.2
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1518	-	-	-	966
HCM Lane V/C Ratio	0.021	-	-	-	0.11
HCM Control Delay (s)	7.422	0	-	-	9.2
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.064	-	-	-	0.37

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
12: Kalmia Avenue & Paonia Street

2035 Background
AM Peak

Intersection	
Intersection Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	15	40	65	1	1	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	43	71	1	1	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	72	0	-	0	147	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	76	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1528	-	-	-	845	991
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	947	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1528	-	-	-	836	991
Mov Capacity-2 Maneuver	-	-	-	-	836	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	937	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	8.8
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1528	-	-	-	987
HCM Lane V/C Ratio	0.011	-	-	-	0.045
HCM Control Delay (s)	7.381	0	-	-	8.8
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.032	-	-	-	0.142

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 Signalized Intersection Summary
3: 28th Street & Winding Trail Drive/Palo Parkway

2035 Background
PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	1	40	105	1	10	55	1015	165	20	700	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	215	194	165	211	194	165	531	1467	1247	422	1467	1247
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	1.00	1.00	1.00	0.79	0.79	0.79
Sat Flow, veh/h	1397	1863	1583	1358	1863	1583	709	1863	1583	446	1863	1583
Grp Volume(v), veh/h	14	1	42	111	1	11	58	1068	174	21	737	14
Grp Sat Flow(s),veh/h/ln	1397	1863	1583	1358	1863	1583	709	1863	1583	446	1863	1583
Q Serve(g_s), s	0.9	0.0	2.5	8.1	0.0	0.6	1.6	0.0	0.0	1.1	14.1	0.2
Cycle Q Clear(g_c), s	1.0	0.0	2.5	8.2	0.0	0.6	15.8	0.0	0.0	1.1	14.1	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	194	165	211	194	165	531	1467	1247	422	1467	1247
V/C Ratio(X)	0.06	0.01	0.26	0.52	0.01	0.07	0.11	0.73	0.14	0.05	0.50	0.01
Avail Cap(c_a), veh/h	469	532	452	458	532	452	531	1467	1247	422	1467	1247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	40.8	41.9	44.4	40.8	41.1	1.4	0.0	0.0	2.4	3.8	2.3
Incr Delay (d2), s/veh	0.1	0.0	0.8	2.0	0.0	0.2	0.4	2.8	0.2	0.2	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	1.0	3.0	0.0	0.3	0.2	1.2	0.1	0.1	4.8	0.1
Lane Grp Delay (d), s/veh	41.4	40.8	42.7	46.5	40.8	41.2	1.8	2.8	0.2	2.6	5.0	2.3
Lane Grp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		57			123			1300			772	
Approach Delay, s/veh		42.3			45.9			2.4			4.9	
Approach LOS		D			D			A			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		15.6			15.6			86.0			86.0	
Change Period (Y+Rc), s		5.0			5.0			6.0			6.0	
Max Green Setting (Gmax), s		29.0			29.0			80.0			80.0	
Max Q Clear Time (g_c+I1), s		4.5			10.2			17.8			16.1	
Green Ext Time (p_c), s		0.5			0.5			25.0			25.2	

Intersection Summary	
HCM 2010 Ctrl Delay	6.7
HCM 2010 LOS	A

Notes

HCM 2010 Signalized Intersection Summary
6: 28th Street & Kalmia Avenue

2035 Background
PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	45	16	75	115	15	20	90	1170	180	15	805	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Cap, veh/h	280	49	236	224	125	172	510	2687	1142	274	2593	80
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.72	0.72	0.72	1.00	1.00	1.00
Sat Flow, veh/h	1364	279	1346	1291	712	978	615	3725	1583	359	3595	111
Grp Volume(v), veh/h	49	0	99	125	0	38	98	1272	196	16	453	449
Grp Sat Flow(s),veh/h/ln	1364	0	1625	1291	0	1690	615	1863	1583	359	1863	1843
Q Serve(g_s), s	3.4	0.0	5.8	10.2	0.0	2.1	5.7	15.7	4.3	1.0	0.0	0.0
Cycle Q Clear(g_c), s	5.5	0.0	5.8	16.0	0.0	2.1	5.7	15.7	4.3	16.7	0.0	0.0
Prop In Lane	1.00		0.83	1.00		0.58	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	280	0	285	224	0	297	510	2687	1142	274	1344	1330
V/C Ratio(X)	0.18	0.00	0.35	0.56	0.00	0.13	0.19	0.47	0.17	0.06	0.34	0.34
Avail Cap(c_a), veh/h	422	0	455	358	0	473	510	2687	1142	274	1344	1330
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	40.1	0.0	39.3	46.4	0.0	37.8	5.0	6.4	4.8	1.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.7	2.2	0.0	0.2	0.8	0.6	0.3	0.3	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	2.5	3.5	0.0	0.9	0.8	6.1	1.5	0.1	0.2	0.2
Lane Grp Delay (d), s/veh	40.4	0.0	40.1	48.5	0.0	38.0	5.9	7.0	5.1	2.0	0.6	0.6
Lane Grp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		148			163			1566			918	
Approach Delay, s/veh		40.2			46.1			6.7			0.6	
Approach LOS		D			D			A			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		24.7			24.7			84.0			84.0	
Change Period (Y+Rc), s		5.6			5.6			5.6			5.6	
Max Green Setting (Gmax), s		30.4			30.4			78.4			78.4	
Max Q Clear Time (g_c+I1), s		7.8			18.0			17.7			18.7	
Green Ext Time (p_c), s		1.3			1.0			30.0			29.8	

Intersection Summary	
HCM 2010 Ctrl Delay	8.8
HCM 2010 LOS	A

Notes

HCM 2010 TWSC
9: Palo Parkway & 30th Street

2035 Background
PM Peak

Intersection	
Intersection Delay, s/veh	5.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	80	35	20	20	20	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	38	22	22	22	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	43	0	-	0	245	33
Stage 1	-	-	-	-	33	-
Stage 2	-	-	-	-	212	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1566	-	-	-	743	1041
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	823	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1566	-	-	-	701	1041
Mov Capacity-2 Maneuver	-	-	-	-	701	-
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	776	-

Approach	EB	WB	SB
HCM Control Delay, s	5.2	0	9.3
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1566	-	-	-	922
HCM Lane V/C Ratio	0.056	-	-	-	0.088
HCM Control Delay (s)	7.434	0	-	-	9.3
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.176	-	-	-	0.29

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
12: Kalmia Avenue & Paonia Street

2035 Background
PM Peak

Intersection	
Intersection Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	35	85	55	1	1	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	92	60	1	1	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	61	0	-	0	228	60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	168	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1542	-	-	-	760	1005
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	862	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1542	-	-	-	740	1005
Mov Capacity-2 Maneuver	-	-	-	-	740	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	840	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.7
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1542	-	-	-	994
HCM Lane V/C Ratio	0.025	-	-	-	0.034
HCM Control Delay (s)	7.394	0	-	-	8.7
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.076	-	-	-	0.105

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 Signalized Intersection Summary
3: 28th Street & Winding Trail Drive/Palo Parkway

2035 Total
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	2	70	198	5	21	20	460	83	20	980	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	326	345	293	317	345	293	245	1306	1110	658	1306	1110
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	1.00	1.00	1.00	0.70	0.70	0.70
Sat Flow, veh/h	1378	1863	1583	1318	1863	1583	531	1863	1583	833	1863	1583
Grp Volume(v), veh/h	11	2	74	211	5	22	21	489	88	21	1043	16
Grp Sat Flow(s),veh/h/ln	1378	1863	1583	1318	1863	1583	531	1863	1583	833	1863	1583
Q Serve(g_s), s	0.6	0.1	3.9	15.1	0.2	1.1	2.2	0.0	0.0	0.7	36.9	0.3
Cycle Q Clear(g_c), s	0.9	0.1	3.9	15.2	0.2	1.1	39.1	0.0	0.0	0.7	36.9	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	326	345	293	317	345	293	245	1306	1110	658	1306	1110
V/C Ratio(X)	0.03	0.01	0.25	0.67	0.01	0.07	0.09	0.37	0.08	0.03	0.80	0.01
Avail Cap(c_a), veh/h	483	557	474	467	557	474	245	1306	1110	658	1306	1110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	32.2	33.8	38.4	32.3	32.6	10.6	0.0	0.0	4.4	9.8	4.4
Incr Delay (d2), s/veh	0.0	0.0	0.4	2.4	0.0	0.1	0.7	0.8	0.1	0.1	5.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	1.6	5.3	0.1	0.5	0.3	0.3	0.0	0.1	14.9	0.1
Lane Grp Delay (d), s/veh	32.7	32.2	34.2	40.8	32.3	32.7	11.3	0.8	0.1	4.5	15.0	4.4
Lane Grp LOS	C	C	C	D	C	C	B	A	A	A	B	A
Approach Vol, veh/h		87			238			598			1080	
Approach Delay, s/veh		34.0			39.9			1.1			14.6	
Approach LOS		C			D			A			B	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		23.0			23.0			74.0			74.0	
Change Period (Y+Rc), s		5.0			5.0			6.0			6.0	
Max Green Setting (Gmax), s		29.0			29.0			68.0			68.0	
Max Q Clear Time (g_c+I1), s		5.9			17.2			41.1			38.9	
Green Ext Time (p_c), s		1.0			0.8			13.4			13.9	

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
6: 28th Street & Kalmia Avenue

2035 Total
AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	12	120	170	25	13	60	533	76	8	1213	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Cap, veh/h	381	36	360	285	285	148	331	2401	1021	516	2345	48
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.64	0.64	0.64	1.00	1.00	1.00
Sat Flow, veh/h	1360	146	1459	1240	1157	600	404	3725	1583	770	3638	74
Grp Volume(v), veh/h	16	0	143	185	0	41	65	579	83	9	675	670
Grp Sat Flow(s),veh/h/ln	1360	0	1605	1240	0	1757	404	1863	1583	770	1863	1850
Q Serve(g_s), s	0.9	0.0	7.6	14.9	0.0	1.9	7.0	6.7	2.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	2.8	0.0	7.6	22.5	0.0	1.9	7.0	6.7	2.0	6.9	0.0	0.0
Prop In Lane	1.00		0.91	1.00		0.34	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	381	0	396	285	0	433	331	2401	1021	516	1201	1192
V/C Ratio(X)	0.04	0.00	0.36	0.65	0.00	0.09	0.20	0.24	0.08	0.02	0.56	0.56
Avail Cap(c_a), veh/h	447	0	474	345	0	518	331	2401	1021	516	1201	1192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.56	0.56	0.56
Uniform Delay (d), s/veh	31.0	0.0	32.1	41.4	0.0	29.9	7.8	7.7	6.9	0.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.6	3.2	0.0	0.1	1.3	0.2	0.2	0.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	3.1	5.0	0.0	0.8	0.7	2.7	0.7	0.0	0.4	0.4
Lane Grp Delay (d), s/veh	31.1	0.0	32.6	44.6	0.0	30.0	9.1	7.9	7.0	0.4	1.1	1.1
Lane Grp LOS	C		C	D		C	A	A	A	A	A	A
Approach Vol, veh/h		159			226			727			1354	
Approach Delay, s/veh		32.5			41.9			7.9			1.1	
Approach LOS		C			D			A			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		31.0			31.0			72.0			72.0	
Change Period (Y+Rc), s		5.6			5.6			5.6			5.6	
Max Green Setting (Gmax), s		30.4			30.4			66.4			66.4	
Max Q Clear Time (g_c+I1), s		9.6			24.5			9.0			8.9	
Green Ext Time (p_c), s		1.7			0.9			21.8			21.8	

Intersection Summary	
HCM 2010 Ctrl Delay	8.9
HCM 2010 LOS	A

Notes

HCM 2010 TWSC
9: Palo Parkway & 30th Street

2035 Total
AM Peak

Intersection	
Intersection Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	30	28	59	28	16	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	30	63	30	17	90

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	93	0	-	0	172	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	94	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1501	-	-	-	818	983
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	930	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1501	-	-	-	800	983
Mov Capacity-2 Maneuver	-	-	-	-	800	-
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	910	-

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	9.3
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1501	-	-	-	949
HCM Lane V/C Ratio	0.021	-	-	-	0.113
HCM Control Delay (s)	7.45	0	-	-	9.3
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.065	-	-	-	0.382

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
12: Kalmia Avenue & Paonia Street

2035 Total
AM Peak

Intersection	
Intersection Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	16	40	66	1	1	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	43	72	1	1	48

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	73	0	-	0	150	72
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	78	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1527	-	-	-	842	990
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	945	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1527	-	-	-	833	990
Mov Capacity-2 Maneuver	-	-	-	-	833	-
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	935	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	8.8
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1527	-	-	-	986
HCM Lane V/C Ratio	0.011	-	-	-	0.05
HCM Control Delay (s)	7.385	0	-	-	8.8
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.035	-	-	-	0.156

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
19: Palo Parkway & Site Access

2035 Total
AM Peak

Intersection	
Intersection Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	10	20	0	1	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	11	22	0	1	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	22	0	-	0	44	22
Stage 1	-	-	-	-	22	-
Stage 2	-	-	-	-	22	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1593	-	-	-	967	1055
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	1001	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1593	-	-	-	964	1055
Mov Capacity-2 Maneuver	-	-	-	-	964	-
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	998	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	8.5
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1049
HCM Lane V/C Ratio	0.003	-	-	-	0.018
HCM Control Delay (s)	7.268	0	-	-	8.5
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.01	-	-	-	0.054

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 Signalized Intersection Summary
3: 28th Street & Winding Trail Drive/Palo Parkway

2035 Total
PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	1	40	108	1	11	55	1015	175	21	700	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	218	198	168	214	198	168	528	1464	1244	418	1464	1244
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	1.00	1.00	1.00	0.79	0.79	0.79
Sat Flow, veh/h	1395	1863	1583	1358	1863	1583	709	1863	1583	442	1863	1583
Grp Volume(v), veh/h	14	1	42	114	1	12	58	1068	184	22	737	14
Grp Sat Flow(s),veh/h/ln	1395	1863	1583	1358	1863	1583	709	1863	1583	442	1863	1583
Q Serve(g_s), s	0.9	0.0	2.5	8.3	0.0	0.7	1.7	0.0	0.0	1.1	14.3	0.2
Cycle Q Clear(g_c), s	1.0	0.0	2.5	8.4	0.0	0.7	15.9	0.0	0.0	1.1	14.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	198	168	214	198	168	528	1464	1244	418	1464	1244
V/C Ratio(X)	0.06	0.01	0.25	0.53	0.01	0.07	0.11	0.73	0.15	0.05	0.50	0.01
Avail Cap(c_a), veh/h	467	531	451	457	531	451	528	1464	1244	418	1464	1244
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	40.7	41.8	44.4	40.7	41.0	1.4	0.0	0.0	2.5	3.9	2.4
Incr Delay (d2), s/veh	0.1	0.0	0.8	2.0	0.0	0.2	0.4	2.9	0.2	0.2	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	1.0	3.0	0.0	0.3	0.2	1.2	0.1	0.1	4.8	0.1
Lane Grp Delay (d), s/veh	41.2	40.7	42.5	46.5	40.7	41.2	1.8	2.9	0.2	2.7	5.1	2.4
Lane Grp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		57			127			1310			773	
Approach Delay, s/veh		42.2			45.9			2.4			5.0	
Approach LOS		D			D			A			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		15.8			15.8			86.0			86.0	
Change Period (Y+Rc), s		5.0			5.0			6.0			6.0	
Max Green Setting (Gmax), s		29.0			29.0			80.0			80.0	
Max Q Clear Time (g_c+I1), s		4.5			10.4			17.9			16.3	
Green Ext Time (p_c), s		0.5			0.5			25.1			25.3	

Intersection Summary			
HCM 2010 Ctrl Delay		6.7	
HCM 2010 LOS		A	

Notes

HCM 2010 Signalized Intersection Summary
6: 28th Street & Kalmia Avenue

2035 Total
PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	45	16	75	120	15	20	90	1180	183	15	808	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Cap, veh/h	284	50	241	228	127	175	507	2676	1137	268	2583	79
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.72	0.72	0.72	1.00	1.00	1.00
Sat Flow, veh/h	1364	279	1346	1291	712	978	613	3725	1583	355	3595	111
Grp Volume(v), veh/h	49	0	99	130	0	38	98	1283	199	16	455	450
Grp Sat Flow(s),veh/h/ln	1364	0	1625	1291	0	1690	613	1863	1583	355	1863	1843
Q Serve(g_s), s	3.4	0.0	5.8	10.7	0.0	2.1	5.8	16.1	4.4	1.1	0.0	0.0
Cycle Q Clear(g_c), s	5.5	0.0	5.8	16.5	0.0	2.1	5.8	16.1	4.4	17.2	0.0	0.0
Prop In Lane	1.00		0.83	1.00		0.58	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	284	0	291	228	0	303	507	2676	1137	268	1338	1324
V/C Ratio(X)	0.17	0.00	0.34	0.57	0.00	0.13	0.19	0.48	0.17	0.06	0.34	0.34
Avail Cap(c_a), veh/h	420	0	453	357	0	471	507	2676	1137	268	1338	1324
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	39.9	0.0	39.2	46.4	0.0	37.6	5.2	6.6	4.9	1.8	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.7	2.2	0.0	0.2	0.8	0.6	0.3	0.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	2.5	3.7	0.0	0.9	0.8	6.1	1.5	0.1	0.2	0.2
Lane Grp Delay (d), s/veh	40.2	0.0	39.9	48.6	0.0	37.8	6.0	7.2	5.3	2.1	0.6	0.6
Lane Grp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		148			168			1580			921	
Approach Delay, s/veh		40.0			46.2			6.9			0.6	
Approach LOS		D			D			A			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		25.1			25.1			84.0			84.0	
Change Period (Y+Rc), s		5.6			5.6			5.6			5.6	
Max Green Setting (Gmax), s		30.4			30.4			78.4			78.4	
Max Q Clear Time (g_c+I1), s		7.8			18.5			18.1			19.2	
Green Ext Time (p_c), s		1.3			1.0			30.3			30.0	

Intersection Summary	
HCM 2010 Ctrl Delay	8.9
HCM 2010 LOS	A

Notes

HCM 2010 TWSC
9: Palo Parkway & 30th Street

2035 Total
PM Peak

Intersection	
Intersection Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	80	46	24	21	23	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	50	26	23	25	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	49	0	-	0	262	38
Stage 1	-	-	-	-	38	-
Stage 2	-	-	-	-	224	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1558	-	-	-	727	1034
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	813	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1558	-	-	-	686	1034
Mov Capacity-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	767	-

Approach	EB	WB	SB
HCM Control Delay, s	4.7	0	9.4
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1558	-	-	-	899
HCM Lane V/C Ratio	0.056	-	-	-	0.094
HCM Control Delay (s)	7.447	0	-	-	9.4
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.177	-	-	-	0.311

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
12: Kalmia Avenue & Paonia Street

2035 Total
PM Peak

Intersection	
Intersection Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	37	86	56	1	1	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	93	61	1	1	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	62	0	-	0	235	61
Stage 1	-	-	-	-	61	-
Stage 2	-	-	-	-	174	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1541	-	-	-	753	1004
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	856	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1541	-	-	-	733	1004
Mov Capacity-2 Maneuver	-	-	-	-	733	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	833	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.8
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1541	-	-	-	994
HCM Lane V/C Ratio	0.026	-	-	-	0.038
HCM Control Delay (s)	7.399	0	-	-	8.8
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.08	-	-	-	0.119

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

HCM 2010 TWSC
19: Palo Parkway & Site Access

2035 Total
PM Peak

Intersection	
Intersection Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	16	20	15	1	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	22	16	1	1	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	17	0	-	0	74	17
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	57	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1600	-	-	-	930	1062
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	966	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1600	-	-	-	920	1062
Mov Capacity-2 Maneuver	-	-	-	-	920	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	955	-

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	8.5
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1600	-	-	-	1046
HCM Lane V/C Ratio	0.011	-	-	-	0.01
HCM Control Delay (s)	7.275	0	-	-	8.5
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.033	-	-	-	0.031

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Queues
3: 28th Street & Winding Trail Drive/Palo Parkway

Existing
AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	6	2	67	188	3	17	20	390	79	16	985	14
v/c Ratio	0.02	0.01	0.20	0.73	0.01	0.05	0.08	0.29	0.07	0.02	0.74	0.01
Control Delay	32.7	32.0	9.6	57.9	32.0	5.9	5.4	5.5	0.8	6.1	14.9	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	32.0	9.6	57.9	32.0	5.9	5.4	5.5	0.8	6.1	14.9	2.2
Queue Length 50th (ft)	3	1	0	124	2	0	3	57	0	3	359	0
Queue Length 95th (ft)	14	7	35	187	9	11	8	77	5	12	678	6
Internal Link Dist (ft)		113			1223			1196			203	
Turn Bay Length (ft)	70		70	75		110	160		160	175		175
Base Capacity (vph)	378	500	474	378	500	447	244	1334	1156	685	1334	1139
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.00	0.14	0.50	0.01	0.04	0.08	0.29	0.07	0.02	0.74	0.01

Intersection Summary

Queues
6: 28th Street & Kalmia Avenue

Existing
AM Peak

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	13	144	167	34	63	486	72	6	1293
v/c Ratio	0.05	0.40	0.80	0.10	0.27	0.19	0.06	0.01	0.52
Control Delay	32.5	22.2	66.9	25.1	11.3	6.3	1.9	6.6	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	22.2	66.9	25.1	11.3	6.3	1.9	6.6	7.2
Queue Length 50th (ft)	7	45	111	13	14	52	0	1	141
Queue Length 95th (ft)	22	93	173	37	47	94	16	m2	250
Internal Link Dist (ft)		105		1390		233			1196
Turn Bay Length (ft)	90		100		160			65	
Base Capacity (vph)	385	501	314	506	232	2504	1141	626	2498
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.29	0.53	0.07	0.27	0.19	0.06	0.01	0.52

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
3: 28th Street & Winding Trail Drive/Palo Parkway

Existing
PM Peak

Lane Group	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	12	35	102	8	55	1012	162	15	697	12
v/c Ratio	0.07	0.08	0.62	0.03	0.10	0.69	0.13	0.05	0.47	0.01
Control Delay	45.4	0.4	65.8	0.1	3.6	8.6	1.3	4.0	5.9	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	0.4	65.8	0.1	3.6	8.6	1.3	4.0	5.9	1.2
Queue Length 50th (ft)	8	0	76	0	8	180	6	2	147	0
Queue Length 95th (ft)	26	0	130	0	17	228	15	9	267	4
Internal Link Dist (ft)						1196			203	
Turn Bay Length (ft)	70	70	75	110	160		160	175		175
Base Capacity (vph)	340	594	340	494	529	1474	1275	318	1474	1256
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.06	0.30	0.02	0.10	0.69	0.13	0.05	0.47	0.01

Intersection Summary

Queues
6: 28th Street & Kalmia Avenue

Existing
PM Peak

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	46	100	116	33	98	1226	181	13	869
v/c Ratio	0.25	0.34	0.69	0.14	0.22	0.45	0.14	0.04	0.32
Control Delay	47.6	16.0	69.7	24.6	6.0	5.9	1.0	3.9	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.6	16.0	69.7	24.6	6.0	5.9	1.0	3.9	3.8
Queue Length 50th (ft)	32	12	87	9	17	145	0	1	69
Queue Length 95th (ft)	65	59	143	37	46	236	19	m5	111
Internal Link Dist (ft)		105		1390		233			1196
Turn Bay Length (ft)	90		100		160			65	
Base Capacity (vph)	347	474	316	443	450	2733	1263	295	2723
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.21	0.37	0.07	0.22	0.45	0.14	0.04	0.32

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
3: 28th Street & Winding Trail Drive/Palo Parkway

2020 Total
AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	7	2	69	211	5	22	21	473	88	19	1005	15
v/c Ratio	0.03	0.01	0.19	0.76	0.01	0.07	0.10	0.36	0.08	0.03	0.77	0.01
Control Delay	31.3	30.5	8.8	57.7	31.0	8.4	6.1	6.4	0.7	6.7	17.2	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	30.5	8.8	57.7	31.0	8.4	6.1	6.4	0.7	6.7	17.2	2.5
Queue Length 50th (ft)	4	1	0	139	3	0	3	68	0	4	400	0
Queue Length 95th (ft)	15	7	34	205	12	16	8	89	6	14	#756	7
Internal Link Dist (ft)		113			1223			1196			203	
Turn Bay Length (ft)	70		70	75		110	160		160	175		175
Base Capacity (vph)	377	500	475	378	500	447	211	1306	1136	595	1306	1115
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.00	0.15	0.56	0.01	0.05	0.10	0.36	0.08	0.03	0.77	0.01

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
6: 28th Street & Kalmia Avenue

2020 Total
AM Peak

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	14	146	189	40	67	581	84	8	1335
v/c Ratio	0.05	0.38	0.82	0.11	0.32	0.24	0.08	0.01	0.55
Control Delay	31.1	22.3	66.2	23.9	13.9	7.2	1.9	7.3	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.1	22.3	66.2	23.9	13.9	7.2	1.9	7.3	8.0
Queue Length 50th (ft)	8	48	125	15	17	70	0	1	165
Queue Length 95th (ft)	23	97	193	40	57	119	18	m3	267
Internal Link Dist (ft)		105		1390		233			1196
Turn Bay Length (ft)	90		100		160			65	
Base Capacity (vph)	383	497	317	507	208	2443	1118	548	2437
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.29	0.60	0.08	0.32	0.24	0.08	0.01	0.55

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
3: 28th Street & Winding Trail Drive/Palo Parkway

2020 Total
PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	13	1	37	114	1	12	57	1032	184	20	711	13
v/c Ratio	0.07	0.00	0.16	0.65	0.00	0.05	0.11	0.71	0.15	0.07	0.49	0.01
Control Delay	44.3	42.0	14.8	66.0	42.0	5.5	3.9	9.6	1.4	4.5	6.5	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	42.0	14.8	66.0	42.0	5.5	3.9	9.6	1.4	4.5	6.5	1.4
Queue Length 50th (ft)	9	1	0	85	1	0	8	184	7	3	160	0
Queue Length 95th (ft)	27	6	31	141	6	8	18	251	17	12	290	4
Internal Link Dist (ft)		113			1223			1196			203	
Turn Bay Length (ft)	70		70	75		110	160		160	175		175
Base Capacity (vph)	340	450	410	340	450	403	509	1459	1265	294	1459	1243
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.00	0.09	0.34	0.00	0.03	0.11	0.71	0.15	0.07	0.49	0.01

Intersection Summary

Queues
6: 28th Street & Kalmia Avenue

2020 Total
PM Peak

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	101	133	38	100	1272	203	16	894
v/c Ratio	0.24	0.32	0.72	0.14	0.23	0.47	0.16	0.06	0.33
Control Delay	45.7	15.3	69.5	23.8	6.8	6.7	1.0	4.6	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	15.3	69.5	23.8	6.8	6.7	1.0	4.6	4.3
Queue Length 50th (ft)	33	12	100	11	19	166	0	2	85
Queue Length 95th (ft)	66	59	159	40	52	266	21	m7	126
Internal Link Dist (ft)		105		1390		233			1196
Turn Bay Length (ft)	90		100		160			65	
Base Capacity (vph)	345	475	317	447	427	2687	1251	270	2678
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.21	0.42	0.09	0.23	0.47	0.16	0.06	0.33

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
3: 28th Street & Winding Trail Drive/Palo Parkway

2035 Total
AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	11	2	74	211	5	22	21	489	88	21	1043	16
v/c Ratio	0.04	0.01	0.20	0.76	0.01	0.07	0.11	0.37	0.08	0.04	0.80	0.01
Control Delay	31.7	30.5	8.7	57.7	31.0	8.4	6.5	6.5	0.7	6.8	18.6	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	30.5	8.7	57.7	31.0	8.4	6.5	6.5	0.7	6.8	18.6	2.6
Queue Length 50th (ft)	6	1	0	139	3	0	3	72	0	4	436	0
Queue Length 95th (ft)	20	7	35	205	12	16	9	94	6	15	#908	7
Internal Link Dist (ft)		113			1223			1196			203	
Turn Bay Length (ft)	70		70	75		110	160		160	175		175
Base Capacity (vph)	377	500	479	378	500	447	185	1306	1136	582	1306	1115
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.00	0.15	0.56	0.01	0.05	0.11	0.37	0.08	0.04	0.80	0.01

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
6: 28th Street & Kalmia Avenue

2035 Total
AM Peak

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	16	143	185	41	65	579	83	9	1345
v/c Ratio	0.06	0.38	0.81	0.11	0.32	0.24	0.07	0.02	0.55
Control Delay	31.5	22.4	65.4	23.7	13.7	7.1	1.9	7.4	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	22.4	65.4	23.7	13.7	7.1	1.9	7.4	8.0
Queue Length 50th (ft)	9	47	123	15	16	68	0	1	157
Queue Length 95th (ft)	25	95	187	41	56	118	18	m4	265
Internal Link Dist (ft)		105		1390		233			1196
Turn Bay Length (ft)	90		100		160			65	
Base Capacity (vph)	382	497	319	507	206	2456	1124	551	2450
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.29	0.58	0.08	0.32	0.24	0.07	0.02	0.55

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
3: 28th Street & Winding Trail Drive/Palo Parkway

2035 Total
PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	14	1	42	114	1	12	58	1068	184	22	737	14
v/c Ratio	0.08	0.00	0.18	0.65	0.00	0.05	0.12	0.73	0.15	0.08	0.51	0.01
Control Delay	44.5	42.0	14.6	66.0	42.0	5.5	3.9	10.5	1.4	4.7	6.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.5	42.0	14.6	66.0	42.0	5.5	3.9	10.5	1.4	4.7	6.7	1.5
Queue Length 50th (ft)	10	1	0	85	1	0	8	191	7	3	170	0
Queue Length 95th (ft)	29	6	32	141	6	8	19	290	18	13	307	5
Internal Link Dist (ft)		113			1223			1196			203	
Turn Bay Length (ft)	70		70	75		110	160		160	175		175
Base Capacity (vph)	340	450	414	340	450	403	490	1459	1264	272	1459	1243
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.00	0.10	0.34	0.00	0.03	0.12	0.73	0.15	0.08	0.51	0.01

Intersection Summary

Queues
6: 28th Street & Kalmia Avenue

2035 Total
PM Peak

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	49	99	130	38	98	1283	199	16	905
v/c Ratio	0.25	0.32	0.71	0.14	0.23	0.48	0.16	0.06	0.34
Control Delay	46.3	15.3	68.9	24.0	6.7	6.6	1.0	4.5	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	15.3	68.9	24.0	6.7	6.6	1.0	4.5	4.2
Queue Length 50th (ft)	34	12	97	11	19	166	0	2	83
Queue Length 95th (ft)	68	58	156	41	50	266	21	m6	125
Internal Link Dist (ft)		105		1390		233			1196
Turn Bay Length (ft)	90		100		160			65	
Base Capacity (vph)	345	474	319	447	424	2696	1253	268	2686
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.21	0.41	0.09	0.23	0.48	0.16	0.06	0.34

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Parking Utilization Survey (1)
Palo Parkway Housing
LSC #150911; March, 2016

BHP Site	Saturday, February 27, 2016			Tuesday, March 1, 2016		
	Available Spaces	Utilized Spaces	Percent Parking Utilized	Available Spaces	Utilized Spaces	Percent Parking Utilized
Red Oak Park 2637 Valmont Road	126	87	69.0%	126	78	61.9%
Westview 4600 Broadway	48	29	60.4%	48	31	64.6%
Woodlands 2685 A Mapleton Avenue	35	23	65.7%	35	21	60.0%
Bridgewalk 602 - 698 Walden Circle	181	136	75.1%	181	149	82.3%
Palo Parkway Housing - Public On-Street Spaces Palo Parkway - Palisade Drive to Ridgeway Street Ridgeway Street - Palo Parkway to Ouray Street	40	8	20.0%	40	11	27.5%

(1) Parking Utilization counts were performed between 11:00 PM and 6:00 AM on the dates noted.

	Number of Units	Provided Number of Spaces	Provided Spaces per Unit	Saturday, February 27 Number Utilized	Percent Utilized	Tuesday, March 1 Number Utilized	Percent Utilized	Average Utilization	Per Unit	Notes
Red Oak Park*	59	126	2.14	87	69.0%	78	61.9%	82.5	1.40	2, 3, 4 BR units
Westview	34	48	1.41	29	60.4%	31	64.6%	30	0.88	1, 2, 3 BR units
Woodlands	35	35	1.00	23	65.7%	21	60.0%	22	0.63	2, 3, 4 BR units
Bridgewalk	123	181	1.47	136	75.1%	149	82.3%	142.5	1.16	1 and 2 BR units

*Number of Spaces provided includes spaces for **future** commercial and residential uses (20 units)

TADDIKEN
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October 2, 2015

Care of:
Lauren Schevets
Boulder Housing Partners
4800 North Broadway
Boulder, CO 80304

RE: Tree inventory- 4525 Palo Parkway

Taddiken Tree Company conducted an inventory of existing trees greater than 6 inches diameter at breast height (DBH) on property located at 4525 Palo Parkway, Boulder, CO. The purpose of the inventory was to locate and identify the species of trees present, measure the DBH, and evaluate the general health of the trees identified on the subject site. The tree inventory was completed in accordance with Boulder Revised Code (BRC) 9-2-14 (h)(2)(C) "Site Review", BRC 1981; and 9-9-12, "Landscape Screening Standards" (Ordinance No. 7713).

General Site Description
The site, 3.216 acres in size, is a vacant field containing various vegetation as well as three species of deciduous trees. The site is bound by Palo Parkway to the south, Pleasant View Fields Sports Complex to the east, a wood lot to the north, and five houses to the west.

Method
Taddiken Tree performed the tree inventory on October 2, 2015. Weather was overcast and warm and trees were still active. Taddiken Tree inventoried, per the BRC, each tree with a diameter of 6 inches and over by identifying the species, measuring the trunk DBH (at approximately 54 inches above the ground) using a 20 foot diameter tape and evaluating the general condition of each tree (all stems on multistem trees were added together to get DBH). Trees and shrubs with a dbh less than 6 inches were not included in the survey.

All trees inventoried were categorized into one of five groups: excellent, good, fair, poor or very poor. The tree condition categories are defined as follows:

Excellent – Healthy, vigorous tree. No apparent signs of insect, disease or mechanical injury. No corrective work required. Form representative of the species.

4525 Palo Parkway Tree Inventory

Good – Better than average vigor. Little corrective work needed. Not quite perfect form.

Fair – Average condition and vigor for the area. May be in need of some corrective pruning or repair. May lack desirable form characteristics of the species. May show minor insect injury, disease or physiological problem.

Poor – General state of decline. May show severe mechanical, insect or disease damage. Death not imminent. May require major repair or renovation.

Very Poor – Includes "poor" above but is more extreme in that no amount of repair or renovation will lead to a desirable and sustainable tree. Costs would exceed any benefit.

Specific tree information is provided in Table 1. A Tree Inventory Map was prepared on base mapping provided by MapCentrix and depicts the location of each tree and provides an identification number that corresponds to the tree described in Table 1. Tree species and health were verified by a Boulder licensed Certified Arborist on October 2, 2015.

Summary of Results

In total, 16 individual trees, composed of three separate species, were identified on the site. The species included plains cottonwood (*Populus deltoides*), Siberian elm (*Ulmus pumila*), and willow (*Salix* spp.). All trees on the site ranged from Good to poor.

Native species present on the site included plains cottonwood and willow. The Siberian elm and clump or multi-stem trees are considered to be undesirable trees by the City of Boulder as these trees are easily damaged by storms, prone to insect and disease infestations, or predisposed to decay (City of Boulder Tree Planting Program 2015).

During any future land use changes, landscape plans should utilize native, City of Boulder approved tree species and remove or manage undesirable tree species.

Table 1. 4525 Palo Parkway October 2, 2015 Tree Inventory Results

ID #	Common Name	DBH (in)	Condition	Comments or Recommendations
1	Plains cottonwood	12*	Fair	-Multi-stem -Grade issues. Likely to encounter future problems. Extensive root zone protection needed if tree is to be preserved.
2	Plains cottonwood	10	Fair	- Grade issues. Likely to encounter future problems. Extensive root zone protection needed if tree is to be preserved.
3	Plains cottonwood	10	Fair	- Grade issues. Likely to encounter future problems. Extensive root zone protection needed if tree is to be preserved.
4	Willow	155*	Poor	-Large multistem.

4525 Palo Parkway Tree Inventory

				-Removal recommended
5	Willow	98*	Poor	-Large multistem. -Removal recommended
6	Willow	88*	Poor	-Large multistem. -Removal recommended
7	Willow	56*	Poor	-Large multistem. -Removal recommended
8	Willow	15*	Poor	-Large multistem. -Removal recommended
9	Willow	11*	Fair	-Large multistem. -Removal recommended. However, if construction is to not interfere, tree can be spared.
10	Willow	8*	Fair	-Large multistem. - Removal recommended. However, if construction is to not interfere, tree can be spared.
11	Siberian elm	8	Very Poor	-Large amounts of dieback. Tree is almost dead. -Removal Recommended
12	Plains cottonwood	15	Fair	-Root zone protection on east side if tree is to be preserved.
13	Siberian elm	11	Fair	-Considered undesirable -Pruning and root zone protection recommended if tree is to be preserved.
14	Plains cottonwood	23	Good	-Root zone protection on east side if tree is to be preserved.
15	Siberian elm	14	Fair	-Considered undesirable -Encroaching road -Removal recommended
16	Siberian elm	9	Fair	-Considered undesirable -Encroaching road -Removal recommended

*Total DBH of all stems on multistem tree

Report completed by:

Taddiken Tree Company

Adam Witte, Arborist IN-3445A

4525 Palo Parkway Tree Inventory

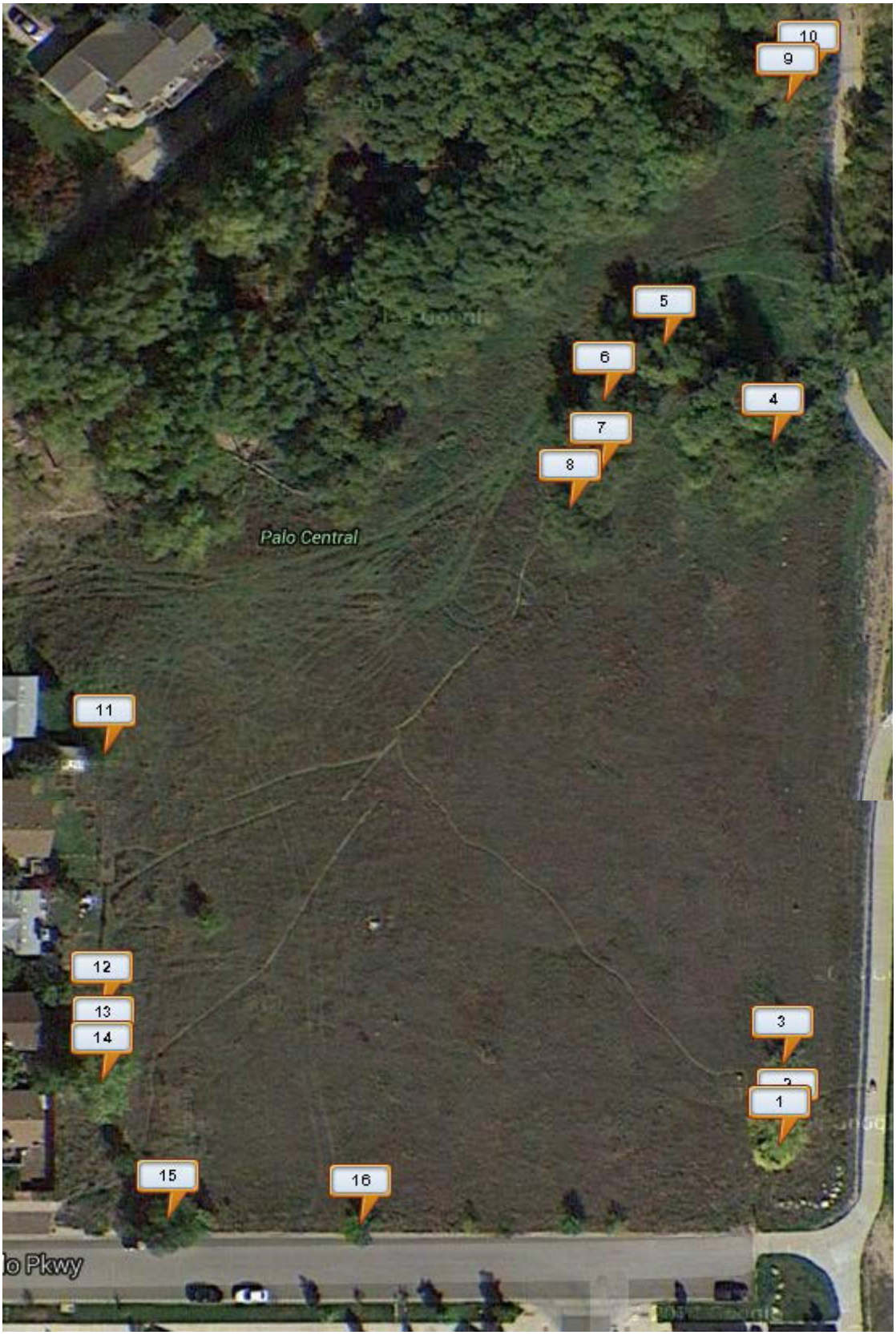

Figure 1. Aerial map of site produced by MapCentrix. Numbers correspond to ID# in Table 1.

Consultants in Natural Resources and the Environment

DENVER • DURANGO • HOTCHKISS • IDAHO

NATURAL RESOURCES ASSESSMENT
4525 PALO PARKWAY PROJECT
BOULDER COUNTY, COLORADO

Prepared for—

Boulder Housing Partners
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Prepared by—

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April 21, 2015

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Summary

Boulder Housing Partners retained ERO Resources Corporation (ERO) to provide a natural resources assessment for the 4525 Palo Parkway property in Boulder County, Colorado (project area). ERO assessed the project area for potential wetlands and waters of the U.S., threatened and endangered species, and wildlife. Below is a summary of the resources found at the project area and recommendations or future actions necessary based on the current site conditions and federal, state, and local regulations.

Wetlands and Other Waters of the U.S. – No wetlands occur within the project area and, therefore, no U.S. Army Corps of Engineers permit would be required. Wetlands identified by the City of Boulder (City) occur north and northeast of the project area. If impacts are planned within a 25-foot or 50-foot buffer of these wetlands, then these impacts may be regulated by the City, depending on the activity.

Threatened and Endangered Species – Suitable habitat for federally listed threatened or endangered species is not present in the project area. No action is necessary to comply with the Endangered Species Act.

Wildlife - Fireflies – Although not protected under any federal or local regulations, fireflies have been observed in the vicinity of the project area. Habitat for these luminescent beetles mostly occurs along Four Mile Creek and an adjacent marsh northwest of the project area. To minimize the impact of the proposed project on these fireflies, ERO recommends that an unmowed buffer of tall grasses and other species be established adjacent to Four Mile Creek.

Wildlife - Migratory Birds – No migratory bird nests were observed in the project area, and one nest was observed on the other side of Four Mile Creek in the backyard of a residence. The project would not likely cause the abandonment of this nest. However, if other nests become established near or within the project area in the future, If active nests are found within the project area, any work that would destroy a nest or cause abandonment should not be conducted until the birds have completed nesting.

Wildlife - Other – As with any human development, including residential development, wildlife species sensitive to human disturbance are likely to decline in abundance or abandon the area, while other wildlife species adapted to urban development are likely to increase in abundance.

The natural resources and associated regulations described in this report are valid as of the date of this report and may be relied upon for the specific use for which it was prepared by ERO under contract to Boulder Housing Partners. Because of their dynamic natures, site conditions and regulations should be reconfirmed by a qualified consultant before relying on this report for a use other than that for which it was specifically prepared.

NATURAL RESOURCES ASSESSMENT
4525 PALO PARKWAY PROJECT
BOULDER COUNTY, COLORADO

APRIL 21, 2015

Introduction

Boulder Housing Partners retained ERO Resources Corporation (ERO) to provide a natural resources assessment for the 4525 Palo Parkway Project, a proposed residential development in Boulder County, Colorado (project area; Figure 1). On April 4, 2015, Denise Larson (an ecologist with ERO) visited the project area to review natural resources (2015 site visit). During this assessment, activities included a review of potential wetlands, identification of potential federally threatened and endangered species habitat, and identification of other wildlife habitat that might affect development of the project area.

This report provides information on existing site conditions and resources, as well as current regulatory guidelines related to those resources. Included in this report are recommendations for avoiding, minimizing, and/or mitigating any natural resource that may be affected by the proposed project. ERO assumes the landowner or developer is responsible for obtaining proper federal, state, and local permits for development of the project area.

Site Description

The project area is located within the City of Boulder (City) in Boulder County, Colorado (Figure 1). The legal description is Section 17, T1N, R70W of the 6th Principal Meridian; and the UTM coordinates of the approximate center of the project area are 478712mE, 4432720mN, Zone 13. The latitude/longitude of the project area is 40.044448°N/105.249548°W. Four Mile Creek forms the northern boundary of the project area and curves southeast at the northeast corner. The remainder of the project area is surrounded by residential development with ballfields to the east.

Most of the project area is a field of smooth brome (*Bromus inermis*) and other pasture grasses (Photo 1). The soils within this field are Nederland very cobbly sandy loams formed in terraces and alluvial fans (Natural Resources Conservation Service

(NRCS) 2015). The northeast corner is lower than the remainder of the project area and forms a portion of the Four Mile Creek floodplain with riparian vegetation of crack willow (*Salix amygdaloides*) trees, chokecherry (*Prunus virginiana melanocarpa*) shrubs, and an understory of smooth brome and other herbaceous vegetation (Photo 2). The soils within the Four Mile Creek floodplain is Calkins sandy loams formed in floodplains and terraces (NRCS 2015).

Four Mile Creek north of the project area shows evidence of recent flooding and consists of a crack willow riparian forest with recently deposited sand and numerous braided creek channels underneath the trees (Photo 3). Other trees within this riparian forest include young green ash (*Fraxinus pennsylvanica*). Under the trees is mostly bare ground with a few patches of various grasses, curly dock (*Rumex crispus*), and scattered sandbar willows (*Salix exigua*). Before the flooding, this portion of Four Mile Creek was more densely vegetated. In 2004, these wetlands were described as crack willow/reed canarygrass (*Phalaris arundinacea*) wetlands that were 98 percent vegetated (City 2004).

Where Four Mile Creek curves to the southeast is a large cattail (*Typha latifolia*) marsh bordered by young green ash, crack willow, and plains cottonwood (*Populus deltoides*) with scattered sandbar willow (Photo 4). The cattail marsh is densely vegetated and does not show evidence of flooding.

Wetlands and Waters of the U.S.

Background

The Clean Water Act (CWA) was passed by the U.S. Congress in 1972 to protect the physical, biological, and chemical quality of waters of the U.S. The U.S. Army Corps of Engineers' (Corps) Regulatory Program administers and enforces Section 404 of the CWA. Under Section 404, a Corps' permit is required for the discharge of dredged or fill material into wetlands and waters of the U.S. The Corps defines waters of the U.S. as all navigable waters and their tributaries, all interstate waters and their tributaries, all wetlands adjacent to these waters, and all impoundments of these waters.

In addition, the City regulates development within wetlands, streams, and other waterbodies (Boulder Revised Code Chapter 9-5-9 Streams, Wetlands, and Water Bodies

Protection) (City 2015). As part of this regulation, the wetlands within the City were mapped, including the wetlands along Four Mile Creek north of the project area. Included in these wetland ordinances are regulations for 25-foot and 50-foot buffers (City 2015).

Site Conditions and Regulations

ERO surveyed the project area for wetlands and other waters of the U.S. following the Corps guidance. No wetlands occur within the project area. Wetlands occur along Four Mile Creek, outside of the project area. These wetlands were not delineated during the 2015 site visit, but had previously been delineated as part of the City – Stream, Wetland, and Water Body Wetland Ordinance (City 2004). The northern portions of the project area appear to be within the 25-foot inner buffer and 50-foot outer buffer regulated by the City (City 2015).

No Corps permit would be required for this project because no wetlands occur within the project area. If impacts are planned within the City's 25-foot or 50-foot buffer, these impacts may be regulated by the City, depending on the activity.

Threatened, Endangered, and Candidate Species

ERO assessed the project area for potential habitat for threatened, endangered, and candidate species under the Endangered Species Act (ESA). Federally threatened and endangered species are protected under the ESA of 1973, as amended (16 U.S.C. 1531 et seq.). Significant adverse effects on a federally listed species or its habitat require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 or 10 of the ESA. The Service lists several threatened and endangered species with potential habitat in Boulder County, or potentially affected by projects in Boulder County (Table 1).

Table 1. Federally threatened, endangered, and candidate species potentially found in Boulder County or potentially affected by projects in Boulder County.

Common Name	Scientific Name	Status*	Habitat	Suitable Habitat Present
Mammals				
Black-footed ferret	*Mustela nigripes*	E	Associated with large prairie dog towns	No
Canada lynx	*Lynx canadensis*	T	Boreal forest with cold snowy winters	No
Preble's meadow jumping mouse	*Zapus hudsonius preblei*	T	Shrub riparian/wet meadows	No
Birds				
Interior least tern**	*Sterna antillarum athalassos*	E	Sandy/pebble beaches on lakes, reservoirs, and rivers	No
Mexican spotted owl	*Strix occidentalis*	T	Closed canopy forests in steep canyons	No
Piping plover**	*Charadrius melodus*	T	Sandy lakeshore beaches and river sandbars	No
Whooping crane**	*Grus americana*	E	Mudflats around reservoirs and in agricultural areas	No
Fish				
Greenback cutthroat trout	*Oncorrynchus clarki stomias*	T	Cold water streams in the mountains.	No
Pallid sturgeon**	*Scaphirhynchus albus*	E	Large, turbid, free-flowing rivers with a strong current and gravel or sandy substrate	No
Plants				
Colorado butterfly plant	*Gaura neomexicana* var. *coloradensis*	T	Subirrigated, alluvial soils on level floodplains and drainage bottoms between 5,000 and 6,400 feet in elevation.	No
Ute ladies'-tresses orchid	*Spiranthes diluvialis*	T	Moist to wet alluvial meadows, floodplains of perennial streams, and around springs and lakes below 6,500 feet	No
Western prairie fringed orchid**	*Platanthera praeclara*	T	Mesic and wet prairies, sedge meadows	No

*T = Federally Threatened Species, E = Federally Endangered Species.
**Water depletions in the South Platte River may affect the species and/or critical habitat in downstream reaches in other counties or states.
Source: Service 2015.

The proposed project would not directly affect the black-footed ferret, Canada lynx, Mexican spotted owl, or greenback cutthroat trout because of the lack of potentially suitable habitat in the project area. The interior least tern, piping plover, whooping crane, pallid sturgeon, and western prairie fringed orchid are species that are affected by water depletions from the South Platte River. If the project includes activities that deplete

water in the South Platte River, such as diverting water from a stream, these species could be affected by the project and consultation with the Service may be required.

Potential habitat for Preble's meadow jumping mouse, Colorado butterfly plant, and Ute ladies'-tresses orchid is more prevalent within development sites across the Front Range. Because these species are more likely to be addressed by counties and regulatory agencies such as the Corps, a more detailed discussion is provided below.

Preble's Meadow Jumping Mouse

Species Background

Preble's meadow jumping mouse (Preble's) was listed as a threatened species on May 13, 1998 under the ESA (see Federal Register Vol. 63, No 232:66777-66784, December 3, 1998). Under existing regulations, either a habitat assessment or a full presence/absence survey for Preble's is required for any habitat-disturbing activity within areas determined to be potential Preble's habitat (generally stream and riparian habitats along the Colorado Front Range and southeastern Wyoming). Typically, Preble's occurs below 7,600 feet in elevation, generally in lowlands with medium to high moisture along permanent or intermittent streams and canals (Meaney et al. 1997). Preble's occurs in low undergrowth consisting of grasses and forbs, in open wet meadows, riparian corridors near forests, or where tall shrubs and low trees provide adequate cover (Service 1999; Meaney et al. 1997). Preble's typically inhabits areas characterized by well-developed plains riparian vegetation with relatively undisturbed grassland and a water source nearby.

Potential Habitat and Possible Effects

ERO assessed the project area for potential Preble's habitat. No suitable shrubby riparian habitat occurs within most of the project area. Woody riparian areas occur along Four Mile Creek north of the project area, except most of the woody and herbaceous shrub layer has been removed by recent flooding (Photo 3). At the northwest corner and northwest of the project area, there is a more well-developed shrub and herbaceous layer. However, suitable habitat along Four Mile Creek near the project area has previously been trapped (ERO 2003; MDG 1997), and no Preble's were found. Because Preble's is

not known to occur along Four Mile Creek and because of the lack of suitable habitat within and near the project area, no action is necessary regarding Preble's.

Colorado Butterfly Plant

Species Background

The Colorado butterfly plant (CBP) is a short-lived perennial herb found in moist areas of floodplains. It occurs on subirrigated alluvial soils on level or slightly sloping floodplains and drainage bottoms at elevations from 5,000 to 6,400 feet. Colonies are often found in low depressions or along bends in wide, active, meandering stream channels that are periodically disturbed. Historically, the main cause of disturbance was probably flooding (Service 2005). The CBP flowers from June to September and produces fruit from July to October (Spackman et al. 1997). This species is federally listed as threatened under the ESA and is found within a small area in southeastern Wyoming, western Nebraska, and north-central Colorado (NatureServe 2012).

Potential Habitat and Possible Effects

ERO assessed the project area for potential suitable CBP habitat. No suitable habitat is present within the project area because the project area is outside of the active Four Mile Creek floodplain. No action is necessary regarding CBP.

Ute Ladies'-Tresses Orchid

Species Background

The Ute ladies'-tresses orchid (ULTO) is federally listed as threatened. ULTO occurs at elevations below 6,500 feet in moist to wet alluvial meadows, floodplains of perennial streams, and around springs and lakes where the soil is seasonally saturated within 18 inches of the surface. Generally, the species occurs where the vegetative cover is relatively open and not overly dense or overgrazed. Once thought to be fairly common in low-elevation riparian areas in the interior western United States, ULTO is now rare (Service 1992a).

In Colorado, the Service requires surveys in areas of suitable habitat on the 100-year floodplain of the South Platte River, Fountain Creek, and Yampa River and their perennial tributaries, or in any area with suitable ULTO habitat in Boulder and Jefferson

counties. ULTO does not bloom until late July to early September (depending on the year) and timing of surveys must be synchronized with blooming (Service 1992b).

Potential Habitat and Possible Effects

ERO assessed the project area for potential ULTO habitat. No suitable habitat for ULTO occurs in the project area because of the lack of riparian wetlands. No action is necessary regarding ULTO.

Other Species of Concern

Fireflies (*Photinus* spp.)

Species Background and Potential Habitat

Luminescent fireflies have been reported along Four Mile Creek in the vicinity of the project area; although overall they are uncommon along the front Range. Throughout Colorado, including Boulder County, luminescent fireflies have only been reported in localized areas associated with permanent wetlands well shaded by cottonwoods or other trees (Cranshaw 2009). In general, fireflies live near standing water and prefer tall grasses (Firefly.org 2015). Potential habitat for fireflies occurs within the cattail marsh northwest of the project area. The portion of Four Mile Creek north of the project area potentially contained habitat for fireflies before the flooding because the understory of reed canarygrass (City 2004) would have provided suitable tall grass habitat. Currently, this understory of tall grass has mostly been removed by flooding. As vegetation reestablished after flooding, higher quality habitat for this species is likely to be restored.

The highest quality habitat for fireflies occurs outside of the project area along Four Mile Creek. When unmowed, the pasture grasses within the project area may supply some foraging habitat.

Management Recommendations

Although impacts on fireflies are not regulated, measures can be taken to minimize and mitigate the impacts from the proposed project and encourage fireflies to establish in this area. These measures include establishing a buffer of tall grasses adjacent to Four Mile Creek that is unmowed and can include plantings of desirable tall species such as native shrubs and forbs.

Raptors and Migratory Birds

Migratory birds, as well as their eggs and nests, are protected under the Migratory Bird Treaty Act (MBTA). The MBTA does not contain any prohibition that applies to the destruction of a bird nest alone (without birds or eggs), provided that no possession occurs during the destruction. While destruction of a nest by itself is not prohibited under the MBTA, nest destruction that results in the unpermitted take of migratory birds or their eggs is illegal and fully prosecutable under the MBTA (Migratory Bird Permit Memorandum, U.S. Fish and Wildlife, April 15, 2003). The regulatory definition of a take means to pursue, hunt, shoot, wound, kill, trap, capture, or collect; or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.

If an active nest is identified within or near the project area, activities that would directly impact the nest, or that would encroach close enough to cause adult birds to abandon the nest during the breeding season, should be restricted. No nests were found within the project area during the 2015 site visit. One nest was found in a fruit tree on the other side of Four Mile Creek in the back yard of a house. Because of the distance of the project area from this nest and the closeness of other human activities to the nest, the project would not likely result in the abandonment of the nest.

Other Wildlife

Small mammals, raccoons, and occasionally deer may use and travel along the Four Mile Creek riparian corridor. Overall, surrounding and continuing development contributes to a decline in the number and diversity of wildlife species nearby and to a change in species composition to favor species that adapt better to human disturbance.

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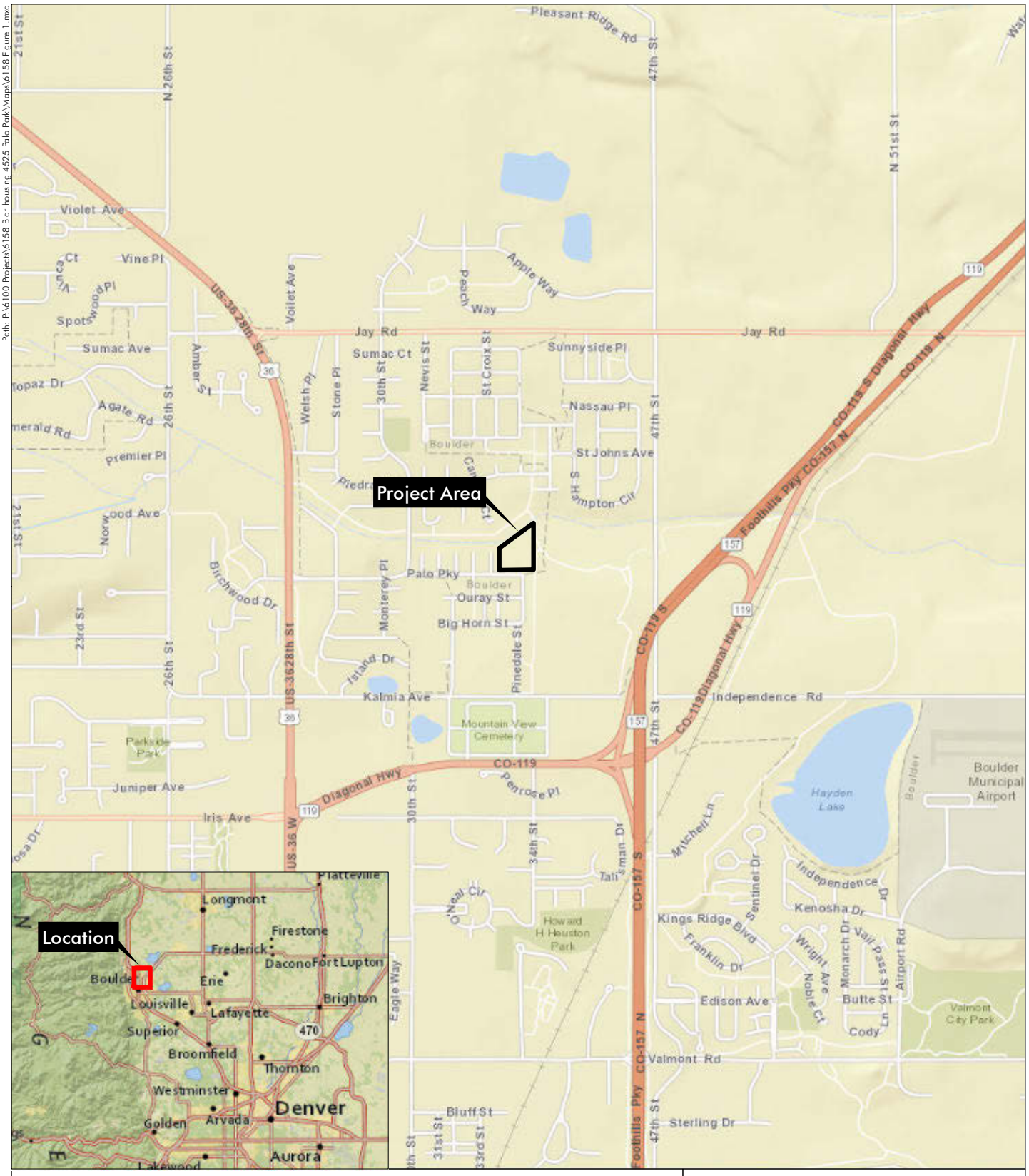

4525 Palo Park

Section 17, T1N, R70W; 6th PM

UTM NAD 83: Zone 13N; 478712mE, 4432720mN

Latitude, Longitude: 40.044448°N, 105.249548°W

USGS Boulder and Niwot, CO Quadrangles

Boulder County, Colorado

0 750 1,500 Feet

N

Figure 1
Vicinity Map

Prepared for:
File: 6158 Figure 1.mxd (WH)
April 17, 2015

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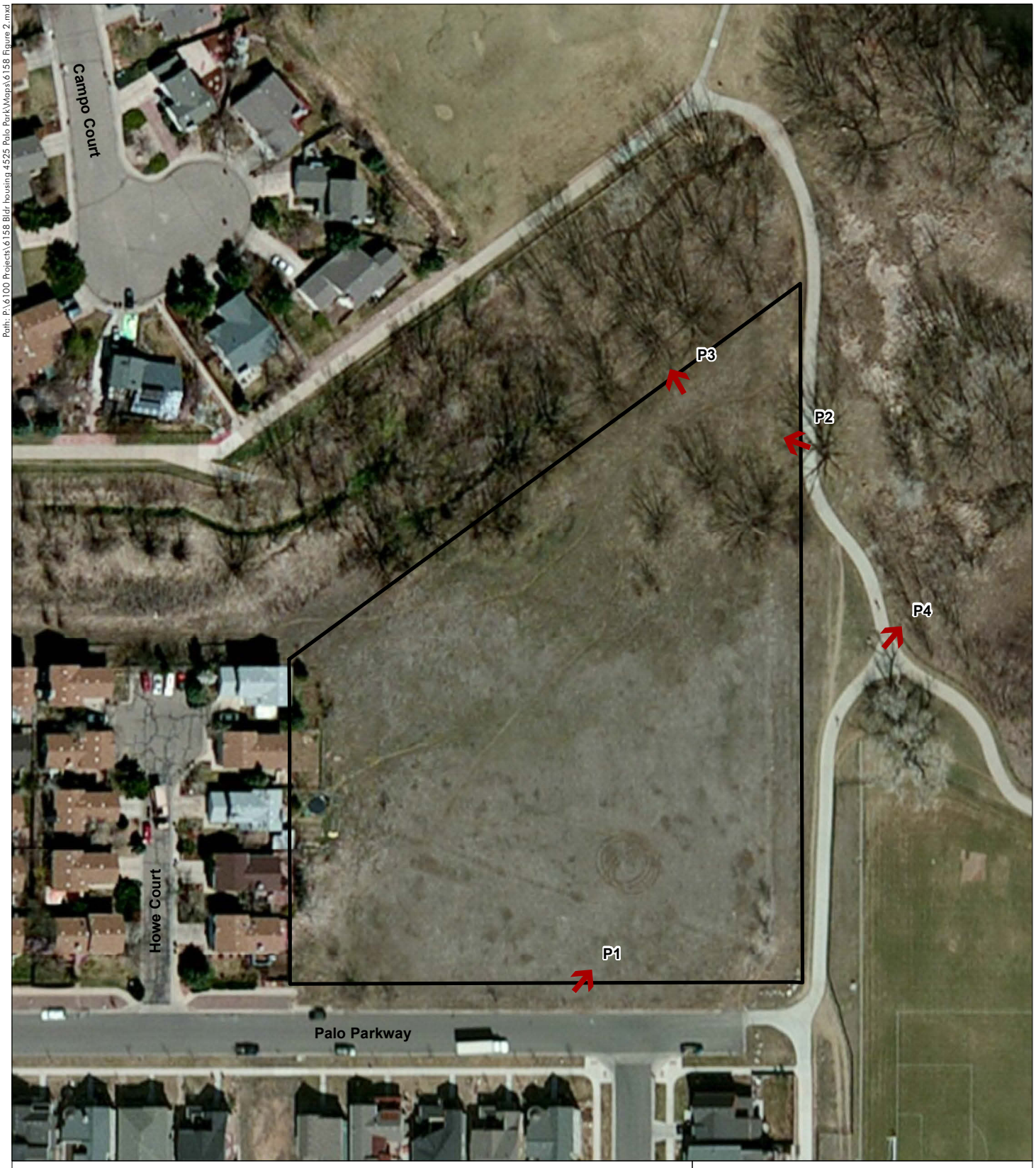

4525 Palo Park

Photo Point

Parcel Boundary

Image Source: Microsoft©, March 2012
Data Source: Boulder County Assessor, 2015

0 50 100 feet

N

Figure 2
Site Description

Prepared for:
File: 6158 Figure 2.mxd (WH)
April 22, 2015

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ERO Resources Corp.

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Photo Log
Boulder Housing Partners - 4525 Palo Parkway Project
April 4, 2015

Photo 1 - Overview of the project area. View is to the northwest.

Photo 2 - View of the crack willow riparian area around Four Mile Creek. View is to the northeast.

Photo Log
Boulder Housing Partners - 4525 Palo Parkway Project
April 4, 2015

Photo 3 - Close-up of Four Mile Creek. View is to the north.

Photo 4 - Large cattail marsh to the east of the project area. View is to the east.

March 12, 2015

Ms. Lauren Schevets
Boulder Housing Partners
4800 N. Broadway
Boulder, Colorado 80304

RE: Phase I Environmental Site Assessment
Palo Park Vacant Land
4525 Palo Parkway
Boulder, Boulder County, Colorado 80301
Farmer Project No.: 3011.05

Dear Ms. Lauren Schevets,

Farmer Environmental Group, LLC is pleased to submit this Phase I Environmental Site Assessment (ESA) report to Boulder Housing Partners. This report discusses background information, purpose and scope of work, execution of work, conclusions, and recommendations (if applicable) for the Subject Site.

Regarding the continued viability of this ESA, ASTM International Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E1527-13) states that an ESA "meeting or exceeding" this practice and completed less than 180 days prior to the date of acquisition of the property or (for transactions not involving an acquisition) the date of the intended transaction is presumed to be valid. Based on this viability statement, this ESA report is presumed to be valid for 180 days after March 12, 2015.

We appreciate the opportunity to provide professional environmental services to you, and if you have any questions or comments regarding this report, please contact the undersigned at (303) 468-8763.

Sincerely,
Farmer Environmental Group, LLC

Jennifer Day, P.E.
Project Manager

Phase I Environmental Site Assessment

Palo Park Vacant Land
4525 Palo Parkway
Boulder, Boulder County, Colorado

March 12, 2015

Prepared for:

Ms. Lauren Schevets
Boulder Housing Partners
4800 N. Broadway
Boulder, Colorado 80304

Prepared by:

Farmer Environmental Group
8361 S. Sangre De Cristo Parkway, Suite 120
Littleton, Colorado 80127

Farmer Project No. 3011.05

www.farmereg.com

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Palo Park Vacant Land
4525 Palo Parkway
Boulder, Boulder County, Colorado

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

Palo Park Vacant Land
4525 Palo Parkway
Boulder, Boulder County, Colorado

EXECUTIVE SUMMARY

On March 2, 2015, Farmer Environmental Group, LLC (Farmer) was contracted by Boulder Housing Partners (the "Client" herein) to conduct a Phase I Environmental Site Assessment (ESA) of the Palo Park Vacant Land located at 4525 Palo Parkway in Boulder, Boulder County, Colorado (the "Subject Site"), as shown on Figure 1 and Figure 2 herein and further detailed in this report. The scope of service, objectives, extent and limitations of the services and this report are described in more detail in the text of this report.

This Phase I ESA was performed in general accordance with the ASTM International Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E1527-13) and is further described in the applicable sections and appendices of this report (Limitations and Scope of Work) with consideration of general industry standards. The purpose of this Phase I ESA was to identify *recognized environmental conditions* as defined by ASTM E1527-13. The findings and conclusions of this assessment are as follows:

- The Subject Site consisted of approximately 3 acres of vacant, undeveloped land located at 4525 Palo Parkway in Boulder, Boulder County, Colorado. According to information obtained from the Boulder County Assessor's Office, the Subject Site (Parcel ID: 146317402031) encompassed 3.25 acres of land. At the time of Farmer's site reconnaissance, the Subject Site was vacant, undeveloped land. According to the Boulder County Assessor information, the current owner of the Subject Site was identified as the City of Boulder. Copies of the Boulder County Assessor records, which include a brief legal description and parcel map of the Subject Site, are included in the appendices.

- In consideration of the available historical information identified during this Phase I ESA, the Subject Site appears to have been undeveloped land from at least 1940.

  From at 1988 until present, surrounding land usage appears to have been limited to residential purposes. Prior to 1988 the surrounding area appears to be rural and/or vacant, undeveloped land. Based on Farmer's review of historical resources, referenced sources, and regulatory database report (discussed in Section 6.1), and in consideration of Farmer's area reconnaissance, it does not appear the historical use of the surrounding properties represents a *recognized environmental condition* in connection with the Subject Site.

- Ms. Jennifer Day, P.E., Project Manager for Farmer, conducted a field investigation of the Subject Site on March 9, 2015. The following summarizes our observations pertinent to the executive summary. Additional observations of the Subject Site are discussed in Section 5.2.

  The Subject Site is undeveloped vacant land. A curb and gutter is located along the south boundary at Palo Parkway. A storm water drain is located in the southwest corner of the Subject Site along Palo Parkway. No significant surface staining or stressed vegetation was noted on the site or adjoining drainages. Four Mile Creek is located along the north boundary of the Subject Site. A paved bike/walking path is located on the east side of the Subject Site.

  The Subject Site contains grasses, weeds, and trees. Approximately 4 to 5 plywood or press board pieces were located on the central portion of the site.

- Farmer's review of the United States Department of the Interior National Wetland Inventory (NWI) digital map obtained from the United States Fish and Wildlife Service's (USFWS) Wetlands Mapper, did not identify designated wetlands on the Subject Site. There is freshwater forested/shrub located along Four Mile Creek.

  Farmer's review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel Number FM08013C0392J (dated December 18, 2012) indicated that the Subject Site was located within Zone X (non-shaded), which is an area determined to be outside the 0.2 percent annual chance floodplain. Flood Zone AE is located adjacent to the north along Four Mile Creek, which is an area determined to have a 1% chance of annual flood without substantial increase in flood heights.

  The County of Boulder is in the process of revising the floodplain maps based on data from the September 2013 floods. The proposed flood maps do not show the Subject Site in the revised 100-year floodplain. The revised 100-year floodplain is expanded to the north and east of the Subject Site.

  The Subject Site appears to be in the 500-year floodplain based on information provided by EDR. A detailed flood study is beyond the scope of this Phase I ESA.

- As detailed in Section 6.1, local, state and federal regulatory databases and information was reviewed by Farmer for on-site and/or nearby regulated facilities indicative of *recognized environmental conditions* within the ASTM-specified radius of the Subject Site.

  No regulatory listings associated with the Subject Site address (4525 Palo Parkway) were encountered during Farmer's review of the regulatory database report. Based on Farmer's review of the regulatory documents, no *recognized environmental conditions* were identified in connection with the Subject Site.

Based upon the distance of separation, current regulatory status, type of regulatory listings identified for adjacent facilities, conditions typical of the identified facility activities, and/or the topographic relationship, the remaining regulated facilities identified in the regulatory database report do not appear to represent a *recognized environmental condition* in connection with the Subject Site.

- Based on information summarized in Section 6.3 and as may be discussed elsewhere in this report, Farmer has identified no facilities that pose an apparent vapor encroachment condition (VEC) to the Subject Site.

Farmer has performed a Phase I ESA in general conformance with the scope and limitations of ASTM E1527-13 of the Subject Site. Any exceptions to, or deletions from, this practice are described in applicable sections of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the Subject Site. However, the following *de minimis conditions* were identified in connection with the Subject Site.

Based on the findings and conclusions of this Phase I ESA, Farmer recommends no further environmental investigations of the Subject Site at this time.

This summary is for convenience only and should not be relied upon without first reading the full contents of this report, including appended materials.

1.0 INTRODUCTION

1.1 Purpose

As defined by ASTM E1527-13, this practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability: that is, the practice that constitutes all appropriate inquiries into the previous ownership and uses of the property consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35)(B).

The purpose of this Phase I ESA was to identify *recognized environmental conditions* in connection with the Subject Site. As defined by ASTM E1527-13, "the term *recognized environmental conditions* means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

The term "c*ontrolled recognized environmental condition"* as defined by ASTM E1527-13 is "a *recognized environmental condition* resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

The term "*historical recognized environmental condition"* as defined by ASTM E1527-13 is "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

The term "*de minimis condition"* as defined by ASTM E1527-13 is "a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis conditions* are not *recognized environmental conditions* nor *controlled recognized environmental conditions*."

1.2 Scope of Services

The scope of services was performed in general conformance with ASTM E1527-13 and is further described in the applicable sections of this report with consideration of general industry standards. The purpose of this ESA was to identify "*recognized environmental conditions*" as defined by ASTM E1527-13. The scope of this contract included the following tasks:

TASK 1: Subject Site reconnaissance
TASK 2: Surrounding land use observations
TASK 3: Geological, hydrological, and topographical information
TASK 4: Historical review of the Subject Site records and use
TASK 5: Regulatory review of current and past activities on the Subject Site
TASK 6: Data evaluation
TASK 7: Report preparation

Soil sampling, groundwater or surface water testing, building materials sampling, drinking water testing, or other sampling and testing were not included in the scope of services of this ESA. This ESA is not a compliance audit, health and safety audit, or an additional Phase of environmental or engineering services and may not be construed as such. Where analytical results are available, the potential for contamination from these sources was evaluated and the results were included in this assessment.

The Phase I ESA consisted of a historical review of the Subject Site and area use, regulatory database review, assessment of the physical setting, Subject Site and area reconnaissance, and a report of Farmer's findings, opinions, conclusions, and recommendations. Data gaps or deviations from this standard (if applicable) are described in pertinent sections of this report.

Subject Site and Area Use

By reviewing or obtaining selected sources of reasonably ascertainable public information, Farmer reviewed the current and historical uses of the Subject Site. The Phase I ESA historical review attempts to extend back until at least 1940 or, for uses prior to that date, back to the time the Subject Site was undeveloped. Sources of historical use information relating to the Subject Site and its adjoining properties were acquired and/or reviewed according to the reasonable availability of the information, the time limits provided for data acquisition and review, as permitted, by the project schedule and cost, and Farmer's judgment of the likely value of the information for indicating environmental concerns. Historical sources reviewed by Farmer are identified in Section 9.0 (provided in Appendix E) and typically include local city directories, aerial photographs, and topographic maps. If available through the database provider, the historical sources reviewed also included historical fire insurance maps.

Regulatory Status Review

Farmer reviewed a report of select regulatory databases published for the local area to identify facilities potentially constituting a suspect *recognized environmental condition* in connection with the Subject Site. Farmer reviewed the databases to identify recorded facilities located on, or in close proximity to, the Subject Site using the ASTM E1527-13 standard environmental record sources and recommended approximate minimum search distances.

Farmer attempted to obtain additional information regarding listed facilities that, in its professional judgment, may constitute *recognized environmental conditions* in connection with the Subject Site. In addition, local agencies were contacted regarding recorded information, incidents, or activities of environmental concern relating to the Subject Site and its nearby properties.

If deemed reasonably ascertainable, necessary, or within the Client-approved scope of work, Farmer has conducted additional file review to obtain sufficient information in connection with regulatory listings of potential environmental concern, if insufficient information was provided via standard sources. If, in Farmer's opinion, such a review is not warranted, Farmer has explained within the report the justification for not conducting additional regulatory file review.

As an alternative, Farmer may have reviewed files/records from an alternative source(s) such as on-site records, user provided records, records from local government agencies, interviews with regulatory officials or other individuals knowledgeable about the environmental conditions that resulted in the standard environmental record source listing.

Subject Site Physical Setting

Farmer obtained and reviewed reasonably ascertainable published Subject Site information to characterize the physical setting of the Subject Site. Sources reviewed are identified in Section 9.0 of this report. If reasonably ascertainable, Farmer reviewed the current United States Geological Survey (USGS) 7.5 Minute Topographic Map showing the area on which the Subject Site is located. Farmer reviewed one or more physical setting sources at the discretion of the Environmental Professional to obtain information about the geologic, hydrogeologic, hydrologic, or topographic characteristics of the Subject Site. Discretionary physical setting sources may have been sought if (1) conditions had been identified in which hazardous substances or petroleum products are likely to be present on-site or to migrate to the Subject Site from off-site sources and (2) more information is generally obtained, pursuant to local good commercial or customary practice.

Subject Site and Area Reconnaissance

The Subject Site and area reconnaissance consisted of field observations of the Subject Site and adjoining land areas by Farmer personnel experienced in conducting environmental site assessments. Farmer observed and documented current uses of the Subject Site and indicators of hazardous chemicals, petroleum products, storage tanks, odors, pools of liquid, drums, containers, polychlorinated biphenyls (PCBs), heating and cooling systems, stains, corrosion, drains and sumps, pits, ponds, lagoons, stressed vegetation, wastes, wells, and septic systems. The area reconnaissance was performed in publicly accessible areas on foot within areas that were reasonably accessible and at Farmer's discretion by automobile along public roads.

1.3 Significant Assumptions

Information obtained from the Client, the Client's representative, Subject Site owner(s), individuals interviewed, prior environmental reports, regulatory information, and information obtained from referenced sources was considered accurate unless Farmer's reasonable inquiries clearly revealed otherwise. Conditions observed were considered representative of areas that were not observed unless otherwise indicated.

The primary direction of groundwater flow was assumed to be dictated by topography and readily accessible geologic information, unless otherwise indicated by measurement of potentiometric surface or other quantifiable data. Additionally, the groundwater flow direction was assumed to control the distribution of impact, if present.

1.4 Limitations and Exceptions

A Phase I ESA is conducted to permit formulation of an opinion as to the potential for environmental liabilities at the Subject Site based on the gathering of limited information and observations. A Phase I ESA is not a comprehensive site characterization and should not be construed as such. The purpose of conducting the Phase I ESA is to reduce, not eliminate, the risk of an entity in its plans or purposes for the Subject Site. The conclusions expressed by Farmer regarding the conditions of the Subject Site addressed herein are based solely on the limited observations made and the data collected during this Phase I ESA. The beneficiaries of this Phase I ESA are hereby advised that conditions observed are subject to change.

The findings and conclusions presented in this ESA are relative to the dates the work was conducted and should not be relied on to represent conditions at later dates. The opinions included herein are based on information obtained during the assessment and Farmer's experience. If additional information becomes available that may influence Farmer's environmental assessment findings, Farmer requests the opportunity to review the information, reassess the potential concerns, and modify Farmer's opinions, if warranted.

This assessment included visual observations to identify obvious features or conditions indicative of *recognized environmental conditions*.

Although this assessment has attempted to identify *recognized environmental conditions*, Farmer cannot eliminate all uncertainty as to *recognized environmental conditions* in connection with the Subject Site nor represent or warrant that the Subject Site contains no hazardous substances or petroleum products or other latent conditions beyond those identified through the scope of work identified herein. Other features, conditions, and constituents may have escaped detection due to: (1) the limited scope of this assessment as driven by Client objectives, (2) the inaccuracy of public records or information reviewed by Farmer, (3) environmental incidents that may have gone undetected or unreported prior to this assessment, (4) inaccessible areas, and/or (5) deliberate concealment of detrimental information.

Farmer's professional services have been performed using the degree of care and skill ordinarily exercised, under similar conditions, by reputable environmental consultants undertaking similar studies and practicing in this locality during the same timeframe. No other warranties, express or implied, are intended or made with respect to this report or Farmer’s services. This assessment was not exhaustive and users of this report should consider the scope and limitations related to these services when developing opinions as to risks associated with the Subject Site. These potential risks may be more thoroughly evaluated as an additional service in an effort to further reduce, but not eliminate, uncertainty. Upon request, Farmer can provide options for additional research or assessment and anticipated additional cost and timing requirements.

This report presents an assessment of the Subject Site as defined by information provided by the Client, Client’s representative, or Key Site Manager. Farmer’s findings, opinions, conclusions, and recommendations are based on the locations and boundaries of the Subject Site as evident in the field and on maps, plats, or descriptive information provided by the Client, Client’s representative, or Key Site Manager.

Farmer assumes the genuineness of the documents and that the information provided in this document or statements are true and accurate to the extent of these limitations. Farmer has prepared this Phase I ESA report in a professional manner using the degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. Farmer will not be responsible for conditions or consequences arising from relevant facts concealed, withheld, or not fully disclosed at the time the report was prepared.

This Phase I ESA was conducted for the benefit of Boulder Housing Partners and may only be relied upon, reissued or otherwise reproduced under the express written consent of Boulder Housing Partners and Farmer. Farmer is not responsible for the conclusions, opinions, or recommendations made by others based on this information.

1.5 Special Terms and Conditions

The work was conducted in general conformance with Farmer's proposal to conduct a Phase I ESA of the Subject Site authorized by Boulder Housing Partners on March 2, 2015, and the terms and conditions established therein. The User is defined as the party seeking to use ASTM E1527-13 to complete an ESA of the Subject Site. The User of this Phase I ESA is Farmer's Client, Boulder Housing Partners.

1.6 User Reliance

This report represents Farmer's services as of the date hereof. As Farmer's final document, it may not be altered after final issuance. This assessment and report were prepared on behalf of and for the exclusive use of Boulder Housing Partners solely for its use and reliance, subject to the terms and conditions agreed upon between Farmer and Boulder Housing Partners. The Client and Farmer were solely involved in shaping the scope of services. Accordingly, reliance on this report by any other party may involve assumptions leading to an unintended interpretation of findings and opinions. As such, reliance by other parties on the contents of this document is not granted, and any such reliance shall be at the sole risk of the using party. With the consent of Farmer and the Client and for a fee, Farmer may offer reliance to third parties or contract with other parties to develop findings and opinions related to such party's specific risk management objectives.

Farmer maintains a common law copyright on this report and services. Reproduction of or reliance upon this report may not be considered without mutual written consent of Farmer and the Client.

The observations and conclusions presented in this report reflect only those conditions apparent on the day of the field reconnaissance. Subsequent changes in Subject Site use or materials, equipment, or chemicals could alter Subject Site conditions. Other limitations of this Phase I ESA (if encountered) are described in applicable sections of this report.

2.0 SUBJECT SITE OVERVIEW

Subject Site Description:
The Subject Site consisted of the Palo Park Vacant Land located at 4525 Palo Parkway in Boulder, Boulder County, Colorado.

The Subject Site (Parcel ID: 146317402031) consisted of vacant, undeveloped land located at 4525 Palo Parkway in Boulder, Boulder County, Colorado. Based on information obtained from the Boulder County Assessor Office and Farmer's site reconnaissance, the Subject Site encompassed approximately 3.25 acres of land. . According to the Boulder County Assessor information, the current owner of the Subject Site was identified as the City of Boulder. Copies of the Boulder County Assessor records, which include a brief legal description and parcel map of the Subject Site, are included in the appendices.

According to the Boulder County Assessor data, the Subject Site was zoned Suburban Residential. An assessment of conformance with zoning regulations was not included as part of this Phase I ESA.

Description of On-site Structures:
No structures are present on the site.

Subject Site Utilities:
The Subject Site, upon development, reportedly would have drinking water and sanitary sewer services provided by the City of Boulder. Xcel Energy reportedly provides electricity to the Subject Site and natural gas to the Subject Site.

ASTM Questionnaires:
Prior to the field reconnaissance, Farmer provided (the Client, current owner or the Phase I ESA report "User") with a user and general environmental questionnaire as prescribed by ASTM E1527-13. The questionnaire was completed by Ms. Lauren Schevets, Project Manager, with Boulder Housing Partners and returned to Farmer. Based on a review of this document, no *recognized environmental conditions* were identified by the Phase I ESA User with respect to knowledge of the current and past Subject Site uses, devaluation of the Subject Site due to environmental concerns, land use restrictions, environmental related litigation, or environmental related violations or citations. A copy of the completed User questionnaire is included in Appendix D of this report.

3.0 SITE BACKGROUND/OPERATING HISTORY

3.1 History of Ownership/Title Records

A chain-of-title was not included in the scope-of-work for this project. The Client did not provide Farmer with past or current Title Instrument documentation for the Subject Site.

According to the Boulder County Assessor information, the current owner of the Subject Site was identified as The City of Boulder.

No information indicative of environmental liens or activity and use limitations (AULs) was encountered during Farmer's research or review of Boulder County Assessor or CDPHE documentation for the Subject Site. Under ASTM E1527-13, the lack of reviewable Title Instruments indicates a "data gap". Based on the information gathered for this assessment, it is the opinion of Farmer that the lack of reviewable Title Instruments does not constitute a significant data gap or significantly affect Farmer's ability to identify *recognized environmental condition* in connection with the Subject Site.

3.2 Review of Aerial Photographs

Environmental Data Resources, Inc. (EDR) provided historical aerial photographs to Farmer for review. Aerial photographs dated 1949, 1953, 1955, 1963, 1966, 1971, 1978, 1983, 1988, 1994, 1999, 2002, 2005, 2006, 2009, and 2011 were purchased from EDR. Copies of the aerial photographs are provided in Appendix E. The following is a summary of the observations made from these photographs. It should be noted that due to the scale and clarity of some of the aerial photographs, specific details with regard to structure types and/or uses observed by Farmer were difficult to discern.

1949
The Subject Site appeared to consist of undeveloped land. No development is adjacent to the Subject Site. Four Mile Creek is located to the north.

1953 – 1983
The Subject Site and adjacent sites are undeveloped land.

1988
The Subject Site appears to have some disturbance. Residential developments are underway to the west and north. The disturbance may be related to these developments as a construction yard. Palo Parkway is now present.

1994 - 2005
The Subject Site is undeveloped, vacant land. The residential development to the north continues. The residences to the west are built out. The soccer complex to the east is now present.

2006
The Subject Site remains as undeveloped land. Residences appear to be under construction to the south of the Subject Site.

2009 – 2011
The Subject Site remains as undeveloped land. The residences to the south are mostly constructed. The Subject Site and surrounding area is similar to that observed during the site reconnaissance.

3.3 Historical Maps and Documents

Fire Insurance Maps
In the late nineteenth century, companies began preparing maps for use by fire insurance companies and municipalities. These maps show construction materials of specific structures in developed urban areas. With the advent of retail gasoline service stations, the approximate locations of tanks were commonly noted, often without AST or UST designations. In addition, the locations of chemical storage and uses of retail, commercial, and industrial buildings were often described. These maps were updated and expanded geographically periodically through the twentieth century.

Farmer contacted EDR to provide coverage for historical fire insurance maps. According to EDR, no maps were available for the Subject Site vicinity. Due to the location of the Subject Site (outside of a main business district), historical fire insurance maps are not anticipated to cover the Subject Site vicinity.

Historical Topographic Maps
Farmer was provided with the following historical U.S. Geological Survey (USGS) topographic maps by EDR for review: 1904, 1951, 1967, 1971, 1979 (Niwot Quadrangle), 1904, 1957, 1966, 1971, 1979 (Boulder Quadrangle).

Farmer's review of the referenced topographic maps indicated that the Subject Site was located at an elevation of approximately 5,317 feet above mean sea level. The primary topography of the Subject Site was shown to slope gradually to the north toward Four Mile Creek located adjacent to the Subject Site. The topographic maps reviewed by Farmer did not depict structures on the Subject Site. In addition, no features indicative of apparent environmental concern (e.g. oil/gas wells, pipelines) were depicted on or in close proximity to the Subject Site.

Other Historical Maps and Documents
Farmer requested historical maps for review from the Client, Subject Site owner, Key Site Manager, and/or local agencies such as as-built plans, site surveys, and other available maps. With the exception of maps obtained from referenced sources, no other historical maps were provided for review.

Historical City Directories
Farmer obtained historical city directory information for the Subject Site and surrounding properties from EDR. Various directories dating from 1962 to 2013 were available for review and/or researched by EDR over approximate five-year intervals.

Listings were the Subject Site are not available. Listings for adjacent sites are available from 1992 to 2013. These listing are for residential properties.

3.4 Previous Assessment Reports

Farmer requested copies of any previous reports relating to the environmental conditions and history of the Subject Site from the report User, the Subject Site Owner, and the Key Site Manager. The following previous assessment report was provided for review or inclusion in this report.

Phase I Environmental Site Assessment Report, Approximately 3-Acre Vacant Property, 4525 Palo Parkway, Boulder, Colorado, by Freedom Environmental Consultants, Inc. dated March 23, 2006.

Based on descriptive information and site maps provided in the report, the property assessed appeared to correspond to the Subject Site assessed by Farmer. At the time of the assessment, the Subject Site appears to have been utilized for similar purposes observed by Farmer. The conclusions section stated "this assessment has not revealed evidence of *recognized environmental conditions* for the site." No recommendations for further assessment were made.

3.5 Interviews Regarding Historical Uses

According to the Key Site Manager (Ms. Lauren Schevets), no reportable/significant spills or leaks of hazardous substances or petroleum products have occurred at the Subject Site to her knowledge. Ms. Schevets was not aware of devaluation of the Subject Site due to environmental concerns, land use restrictions, environmental related litigation, or environmental related violations or citations. No indications of aboveground storage tanks (ASTs), underground storage tanks (USTs), or underground mechanical systems (e.g. oil/water separators, septic systems) were observed by Farmer or reported by the Key Site Manager.

3.6 Summary of Historical Information

In consideration of the available historical information identified during this Phase I ESA, the Subject Site appears to have been vacant land from at least 1949 until the present.

Farmer's review of historical resources, regulatory records, and site reconnaissance did not identify *recognized environmental conditions* attributable to historical uses of the Subject Site.

The standard historical sources listed below were not reviewed. It is Farmer's opinion that these sources would not provide additional significant and complete information, or the sources were not considered to be practically reviewable, reasonably ascertainable or available.

- Zoning/land use records;
- Property tax files;
- Recorded land title records; and
- Building department records.

Data failure was not encountered during this assessment, as the earliest documented historical land use was a 1949 aerial photograph. This was not considered to represent a significant data gap that affected the ability of the environmental professional to identify *recognized environmental conditions*. If instances of data failure resulted in significant data gaps that affected the ability of the environmental professional to identify *recognized environmental conditions*, those data gaps are discussed in applicable sections of the ESA.

4.0 ENVIRONMENTAL SETTING

4.1 Topography

Based on a review of the USGS Boulder and Niwot, Colorado Topographic Maps, the Subject Site is located at approximately 5,317 feet above mean sea level. The primary topography of the Subject Site is shown to slope gradually toward the north. Surface drainage in the area is anticipated to flow toward the north in the direction of Four Mile Creek, which is located adjacent to the north. Farmer's on-site observations generally corresponded to the information provided by the topographic maps. It should be noted that development activities on and in close proximity to the Subject Site, such as adjoining roadways, has influenced the local topography resulting in variable flow direction of surface water (when present).

4.2 Geology

According to information received from EDR, the geology at the Subject Site is characterized as a stratified sequence of the Mesozoic Era, Cretaceous System and Austin & Eagle Ford Groups Series. The geology in this system consists primarily of coarse gravels with fine clayey gravel.

Soil Conservation Service STATSGO data compiled by EDR shows the soil surface to belong to the Nederland soil component. These soils have moderate infiltration rates (Class B) and are deep and moderately deep, moderately well and well drained soils. The soils are typically very cobbly sandy loam.

4.3 Hydrology

Farmer's assessment of wetlands and potential jurisdictional Waters of the U.S. was limited to research of published information, interviews, and visual observations. It should be noted that wetlands cannot be definitively identified through visual observation alone. Defensible wetland delineations require taxonomic classification of site vegetation, an investigation into the surface and subsurface hydrology of the site, and identification of hydric soils. This level of delineation is outside of the scope of work for this assessment. Farmer's site reconnaissance and review of historical resources did not indicate the presence of former or current surface water features on the Subject Site.

Farmer's review of the United States Department of the Interior National Wetland Inventory (NWI) digital map obtained from the United States Fish and Wildlife Service's (USFWS) Wetlands Mapper, did not identify designated wetlands on the Subject Site. There is freshwater forested/shrub located along Four Mile Creek.

Farmer's review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel Number FM08013C0392J (dated December 18, 2012) indicated that the Subject Site was located within Zone X (non-shaded), which is an area determined to be outside the 0.2 percent annual chance floodplain. Flood Zone AE is located adjacent to the north along Four Mile Creek, which is an area determined to have a 1% chance of annual flood without substantial increase in flood heights.

The County of Boulder is in the process of revising the floodplain maps based on data from the

September 2013 floods. The proposed flood maps do not show the Subject Site in the revised 100-year floodplain. The revised 100-year floodplain is expanded to the north and east of the Subject Site.

The Subject Site appears to be in the 500-year floodplain based on information provided by EDR. A detailed flood study is beyond the scope of this Phase I ESA.

Groundwater occasionally occurs in shallow, discontinuous or "perched" water bearing units where the soils are in contact with the unweathered bedrock or an impermeable soil layer. These shallow units are infrequently utilized, but are the water bearing zones with the potential to be impacted by releases from UST facilities or other surface/subsurface sources. Flow direction in these units is highly variable, but is generally toward the nearest down gradient water body (lakes, creeks, rivers) and can be approximated by observing the surface topography. Recharge areas for these perched aquifers are very localized, and they can be influenced by surface development of impervious cover (buildings, parking lots, roads), major road construction (underpasses, utility trenches), and variations in annual rainfall. A subsurface investigation including the installation of a minimum of three monitoring wells would be required to accurately determine groundwater gradient on the Subject Site. Based on the topographic and geologic information identified in this report, the anticipated depth to perched groundwater on the Subject Site is approximately 20 to 25 feet below ground surface and the subsurface gradient would be anticipated to be toward the north and east.

5.0 RESULTS OF THE ON-SITE INVESTIGATION

Ms. Jennifer Day, Project Manager for Farmer, conducted a field investigation of the Subject Site on March 9, 2015. At the time of the field investigation, the weather was clear with temperatures in the 30s (F). As discussed below, observations of the ground surfaces of the Subject Site were limited by weather-related obstructions. The Subject Site location map is included in Appendix A as Figure 2. Photographs of the Subject Site and surrounding properties are provided in Appendix C.

5.1 Methodology and Limiting Conditions

Farmer visually and physically observed accessible areas of the Subject Site. Farmer was able to access a majority of the Subject Site, the Subject Site perimeter, and portions of the adjoining public right-of-way areas. Limitations imposed by physical obstructions or other limiting conditions included:

- The Subject Site was covered in approximately 3 to 6 inches of snow. The site was accessible but visual of the soil surface was limited.

Based on the information gathered for this assessment, it is the opinion of Farmer that the limiting conditions discussed above did not significantly affect Farmer's ability to identify *recognized environmental conditions* in connection with the Subject Site.

5.2 Observations

Subject Site Overview
The Subject Site (Parcel ID: 146317402031) consisted of vacant, undeveloped land located at 4525 Palo Parkway in Boulder, Boulder County, Colorado. Based on information obtained from the Boulder County Assessor Office and Farmer's site reconnaissance, the Subject Site encompassed approximately 3.25 acres of land. . According to the Boulder County Assessor information, the current owner of the Subject Site was identified as the City of Boulder. Copies of the Boulder County Assessor records, which include a brief legal description and parcel map of the Subject Site, are included in the appendices.

Interviews with Owners/Representatives
Farmer was not escorted during the field reconnaissance. The Key Site Manager answered general questions concerning the environmental conditions on the Subject Site following Farmer's Subject Site reconnaissance. The information provided by Key Site Manager is identified in appropriate sections of this report.

Storm Water Drainage Observations
The storm water appears to flow to the municipal storm water drainage system along Palo Parkway or direction to Four Mile Creek. It should be noted that a small drainage swale paralleled the eastern boundary of the Subject Site, which appeared to accumulate runoff from the eastern portion of the Subject Site which flows to Four Mile Creek. No significant surface staining was noted near the on-site storm drains or near the adjacent drains.

Source of Drinking Water
The City of Boulder would provide drinking water service to the Subject Site upon development. According to a customer service representative, the drinking water meets or exceeds all state and federal regulations with respect to drinking water quality.

Sewage Disposal/Septic System
The City of Boulder would provide sanitary sewer service to the Subject Site upon development. No septic systems or sewage pretreatment systems were observed or reported to be on the Subject Site.

Storage Tanks and Associated Equipment
No indications of underground storage tanks (USTs), aboveground storage tanks (ASTs) or associated equipment (e.g. fill ports) were observed or reported on the Subject Site.

Hazardous Chemicals and Petroleum Products
No hazardous chemicals or petroleum products were observed on the Subject Site.

Odors
No unusual odors were detected on the Subject Site at the time of the investigation.

Surface Staining, Corrosion and Stressed Vegetation
No significant surface staining, corrosion or stressed vegetation was observed on the Subject Site during Farmer's site reconnaissance.

Polychlorinated Biphenyls (PCBs)
PCBs were commonly used in electrical and hydraulic equipment prior to an EPA ban on this chemical in 1978. Farmer included observations of the Subject Site systems for potential PCB containing equipment.

No potential PCB-containing equipment such as electrical transformers, hydraulic lifts, or trash compactors were observed on the Subject Site.

Heating and Cooling Systems
No buildings are present on the Subject Site.

Drains, Sumps, or Pre-treatment Systems.
No drains, sumps, or pre-treatment systems were reported or observed on the Subject Site.

Pits, Ponds or Lagoons
No pits, ponds or lagoons were observed on the Subject Site.

Solid Waste Disposal
No solid waste disposal is evident on the Subject Site.

The Subject Site contains grasses, weeds, and trees. Approximately 4 to 5 plywood or press board pieces were located on the central portion of the site.

Wastewater Discharges
No industrial wastewater discharges occur at the Subject Site.

Wells or Cisterns
No water wells, petroleum-related wells, or cisterns were observed or reported on the Subject Site.

Rail Road Spurs or Pipelines
No active or inactive railroad spurs or petroleum pipeline systems were observed on or adjacent to the Subject Site.

A natural gas pipeline appears to run adjacent to the Subject Site along the south boundary along Palo Parkway. An underground pipeline marker is located at the southwest corner of the Subject Site along with buried telephone lines.

Based on Farmer's review of the regulatory database report, these underground utilities do not appear to represent a *recognized environmental condition* in connection with the Subject Site.

5.3 Adjoining Property Observations

Adjoining properties were visually examined from public access right-of-ways to make a cursory assessment of the current land use and its potential for recognized environmental conditions that may have impact on the Subject Site. Reconnaissance of adjoining properties was performed by viewing land use from legal boundaries or by walking upon the adjoining properties that were legally accessible. Adjoining developments to the Subject Site are as follows:

North: Four Mile Creek with residences beyond;
East: Bike path and soccer fields;
South: Residences; and
West: Residences.

Farmer's observation of the adjoining/nearby properties did not identify facilities that may represent *recognized environmental conditions* in connection with the Subject Site. Regulated facilities located in the vicinity of the Subject Site are described in Section 6.0.

6.0 REGULATORY/GOVERNMENTAL AGENCY INQUIRIES

6.1 Federal and State Regulatory Agencies

State and Federal regulatory database information for the vicinity of the Subject Site was obtained from EDR. The EDR database records follow the ASTM E1527-13 search distances and availability. In some cases, additional database records are available and these databases are described if properties or facilities are identified that may pose a *recognized environmental condition* in connection with the Subject Site. Unless otherwise stated, the regulatory records reviewed by Farmer were considered to provide sufficient information to evaluate the potential existence of a *recognized environmental condition*, *historical recognized environmental condition*, *controlled recognized environmental condition*, or a *de minimis condition* in connection with the Subject Site.

A radius map and summarization page of the findings of the EDR research is included with the database information, which is provided in Appendix F. In addition, EDR has provided definitions for the various database functions.

In summary, the EDR research included a review of the following databases:

- US Environmental Protection Agency (EPA) National Priorities List (NPL);
- EPA Resource Conservation and Recovery Information System (RCRIS) Treatment, Storage, and Disposal Facilities (RCRIS TSD) list;
- EPA RCRIS Corrective Actions (CORRACTS) database;
- EPA RCRIS Violations/Enforcement Actions (RCRA Violator) list;
- EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS);
- EPA CERCLIS No Further Remedial Action Planned (NFRAP) sites list;
- EPA RCRIS Large Generators (RCRIS LG)/Small Generators (RCRIS SG) lists;
- EPA Emergency Response Notification System (ERNS) list;
- Colorado State Superfund list;
- Colorado State CERCLIS Equivalent (SCL) database;
- Colorado Industrial Hazardous Waste (IHW) database;
- Colorado Leaking Petroleum Storage Tanks (LPST) list;
- Colorado registered UST and AST list;
- Colorado Solid Waste/Landfills Permit Application (SWLF) file;
- Colorado Voluntary Cleanup Program (VCP); and
- Colorado Spills Report.

The following table includes the approximate minimum search distances and a list of the databases reviewed. These databases were selected based on minimum requirements of ASTM E1527-13. The number of facilities indicates the number of regulated facilities identified by the database provider to be present within the approximate minimum search distance for a particular database.

ASTM FEDERAL, STATE, & TRIBAL DATABASE LISTS								
Database	**Approximate Minimum Search Distance (Miles)**	**Target Property**	**<1/8**	**1/8 – 1/4**	**1/4 – 1/2**	**1/2 – 1**	**<1**	**Total Plotted**
NPL/Equivalents	One Mile	0	0	0	0	0	NR	0
Delisted NPL	One Mile	0	0	0	0	0	NR	0
CERCLIS/Equivalents	One-Half Mile	0	0	0	0	NR	NR	0
CERC-NFRAP Sites	One-Half Mile	0	0	0	0	NR	NR	0
CORRACTS	One Mile	0	0	0	0	0	NR	0
RCRA Generators	One-Quarter Mile	0	0	0	NR	NR	NR	0
RCRA TSD Facilities	One-Half Mile	0	0	0	0	NR	NR	0
ERNS	Subject Site	0	NR	NR	NR	NR	NR	0
SHWS	One Mile	0	0	0	0	0	NR	0
SWF/LF Report	One-Half Mile	0	0	0	0	NR	NR	0
CLI	One-Half Mile	0	0	0	0	NR	NR	0
LUST/TRUST List	One-Half Mile	0	0	0	0	NR	NR	**1**
UST List	One-Quarter Mile	0	0	0	NR	NR	NR	0
VCP List	One-Half Mile	0	0	0	0	NR	NR	0
AST	One-Quarter Mile	0	0	0	NR	NR	NR	0
LIENS	Subject Site	NR	NR	NR	NR	NR	NR	NR
Drycleaners	One-Quarter Mile	0	0	0	NR	NR	NR	0
AUL	One-Half Mile	0	0	0	0	NR	NR	0
Brownfields Sites	One-Half Mile	0	0	0	0	NR	NR	0

NR – Not Requested at this Search Distance

The database research identified no regulated facilities associated with the Subject Site address (4525 Palo Parkway) or Palo Park Vacant Land.

Based on Farmer's review of the regulatory database report and EPA records, the regulatory listings associated with the Subject Site do not appear to represent a *recognized environmental condition* in connection with the Subject Site.

Farmer reviewed the regulatory information provided in the database report to identify listed facilities located within the approximate minimum search distances. If encountered, significant facilities identified are discussed below along with their distance from the Subject Site, the regulatory database on which the facility was listed, the apparent hydrologic relationship to the Subject Site, information provided in the database report, Farmer's observation of the facility during the area reconnaissance (if pertinent) and/or comments, and whether or not the facility was considered to be a potential environmental concern to the Subject Site. Additional facilities may have been identified by the database provider but not presented as follows based on Farmer's judgment of significance. Those facilities are documented for reference by the reader in the appended report.

Facility Name: Kum & Go #943
Facility Address: 3365 Diagonal
Approximate Distance / Direction: 2575 Feet / Southeast
Topographic Relationship: Down-gradient
Database Listing(s): LUST

Summary of Adjacent Facility/Property Listing:
According to the regulatory database report, the gasoline station is actively undergoing a remediation for impacted soil and/or groundwater. This site is located downgradient of the Subject Site and is not considered a *recognized environmental concern* in connection with the Subject Site.

Based upon the distance of separation, current regulatory status, type of regulatory listings identified for these facilities, conditions typical of the identified facility activities, topographic relationship, and/or lack of reported releases, the remaining regulated facilities identified in the regulatory database report do not appear to represent a *recognized environmental condition* in connection with the Subject Site.

EDR provides three proprietary databases that identify historical manufactured gas plants, cleaners and auto stations that are known to EDR, typically based on city directory reviews and/or Sanborn Maps. Facilities included on this database typically operated before current regulations requiring notification/registration. These facilities may not be listed on regulatory databases but may be suspect *recognized environmental conditions* due to proximity to the Subject Site. Farmer reviewed the historical facility databases and no historical facilities were identified.

The database report listed one "orphan" facility (facilities that were not mapped in the database report due to poor or inadequate address information). Based upon Farmer's area reconnaissance, distance of separation, type of regulatory listings identified for these facilities, conditions typical of the identified facility activities, and/or topographic relationship the orphan facilities do not appear to represent a *recognized environmental condition* in connection with the Subject Site.

6.2 Local Government Inquiries

City of Boulder
The questionnaire provided by the Client was reviewed by the City of Boulder prior to return to Farmer. No known environmental concerns exist for the Subject Site.

6.3 Limited Vapor Encroachment Screening

In general accordance with ASTM E1527-13, Farmer has utilized the referenced sources, EDR Vapor Encroachment Screen, and visual reconnaissance in order to assess the potential for vapor migration, attributable to substances such as volatile organic compounds (VOCs), which may represent a vapor encroachment condition (VEC) in connection with the Subject Site. ASTM International has published a *Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions* (ASTM E2600-10). ASTM E2600-10 defines a VEC as the presence or likely presence of vapors from chemicals of concern (COCs) in the subsurface of a property caused by the release of vapors on or near the property. The presence within a building of hazardous substances such as vapors that have migrated into a building from a "release into the environment" (i.e. from a release outside of the building) can result in CERCLA liability. Vapor migration in the subsurface is described in ASTM E2600-10; however, ASTM E1527-13 states that "nothing in this practice should be construed to require application of the ASTM E2600-10 standard to achieve compliance with all appropriate inquiries".

Farmer conducted a Limited Vapor Encroachment Screening (VES) of the Subject Site utilizing general procedures laid out in ASTM E2600-10. The practices laid out in ASTM E2600-10 provide useful information for evaluation of the potential condition using terminology that is clearly defined and widely recognized. Additionally, ASTM E2600-10presents assessment approaches that are beyond the scope of ASTM E1527-13 and this Phase I ESA. Although this Limited VES draws upon the concepts laid out in ASTM E2600-10 and uses the terminology defined therein, this section represents assessment procedures required by ASTM E1527-13, but less than an ASTM International Tier 1 VES as described in ASTM E2600-10. Moreover, the information on which this Limited VES is based is limited solely to that identified during the course of the Phase I ESA.

The following table presents the *approximate minimum search distance* for Standard Environmental Record Sources for petroleum and non-petroleum COCs to identify potential areas of concern generated via the EDR Vapor Encroachment Screen. The term "*approximate minimum search distance"* is measured from the Subject Site to a known or suspect source of soil and/or groundwater contamination. These record sources were selected based on minimum requirements of ASTM E2600-10 and were augmented to include facilities that are commonly encountered and identified through other sources considered in a Phase I ESA. The number of facilities indicates the number of known or suspect contaminated sites identified during review of the standard record sources.

Standard Environmental Records	Maximum Search Distance	Subject Site	< 1/10th	1/10th to 1/3rd
Federal NPL	0.333	0	0	0
Federal CERCLIS	0.333	0	0	0
Federal RCRA CORRACTS	0.333	0	0	0
Federal RCRA non-CORRACTS TSD	0.333	0	0	0
Federal RCRA generators	SS	0	-	-
Federal institutional control/engineering control registries	0.333	0	0	0
Federal ERNS	SS	0	-	-
State- and tribal-equivalent NPL	0.333	0	0	0
State- and tribal-equivalent CERCLIS	NS	-	-	-
State and tribal landfill and/or solid waste disposal site	0.5	0	0	0
State and tribal leaking storage tank	0.333	0	0	0
State and tribal registered storage tank	0.25	0	0	0
State and tribal institutional control/engineering control registries	SS	0	-	-
State and tribal voluntary cleanup	0.333	0	0	0
State and tribal Brownfield sites	0.333	0	0	0
Other Standard Environmental Records	0.333	0	0	0
Historical Use Records				
Former manufactured gas plants	0.333	0	0	0
Historical gas stations	0.25	0	0	0
Historical dry cleaners	0.25	0	0	0
Exclusive recovered government archives	NS	-	-	-

Distances listed in miles
SS = Subject Site
NS = Not Searched

Vapor Encroachment Condition (VEC) Classifications:
VEC Exists *VEC Cannot be ruled out*
VEC Likely *VEC Can be ruled out*

Based on information summarized in the preceding table and as may be discussed elsewhere in this report, Farmer has identified no facilities that pose an apparent VEC to the Subject Site.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Farmer has performed a Phase I Environmental Site Assessment in conformance with scope and limitations of ASTM E1527-13 of the Subject Site. Any exceptions to, or deletions from, this practice are described in applicable sections of this report.

Based on the findings and conclusions of this Phase I ESA, Farmer recommends no further environmental investigations of the Subject Site at this time.

However, based on the preliminary flood study Farmer recommends a detailed flood study for this property to evaluate whether the subject site is on the 500-year floodplain and whether building precautions are necessary.

8.0 CERTIFICATION AND QUALIFICATIONS

Signature of Environmental Professional(s)

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Site. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Jennifer Day, P.E.
Environmental Professional

Qualifications of Farmer Personnel

In accordance with ASTM E1527-13, this report includes the qualifications of the *Environmental Professional*, and the qualifications of the personnel conducting the site reconnaissance and interviews, if conducted by someone other than an *Environmental Professional*. These qualifications are documented in the appendices.

9.0 REFERENCES

References used in preparation of this report are cited throughout the text and/or provided below.

Boulder Housing Partners, Lauren Schevets, Phase I Environmental Site Assessment USER Questionnaire, dated March 2, 2015.

County of Boulder, Assessor Records, Parcel No. 146317402031, dated February 20, 2015.

County of Boulder, Floodplain Map, March 2, 2015.

US Department of the Interior, Digital NWI Wetlands Map, obtained from the United States Fish and Wildlife Service's Wetlands Mapper, dated March 2, 2015;

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Community Panel Number FM08013C0392J (dated December 18, 2012);

Freedom Environmental Consultant, Inc., Phase I Environmental Site Assessment Report, Executive Summary, 4525 Palo Parkway, Boulder, Colorado, for City of Boulder, dated March 23, 2006.

Historical Aerial Photographs, purchased from EDR, dated 1949, 1953, 1955, 1963, 1966, 1971, 1978, 1983, 1988, 1994, 1999, 2002, 2005, 2006, 2009, and 2011;

EDR-City Directory Image Report, Palo Parkway, 4525 Palo Parkway, Boulder, Colorado 80301, Inquiry Number, 4221742.5, dated March 3, 2015;

EDR-Certified Sanborn Map Report, Palo Parkway, 4525 Palo Parkway, Boulder, Colorado 80301, Inquiry Number 4221742.3, dated March 2, 2015;

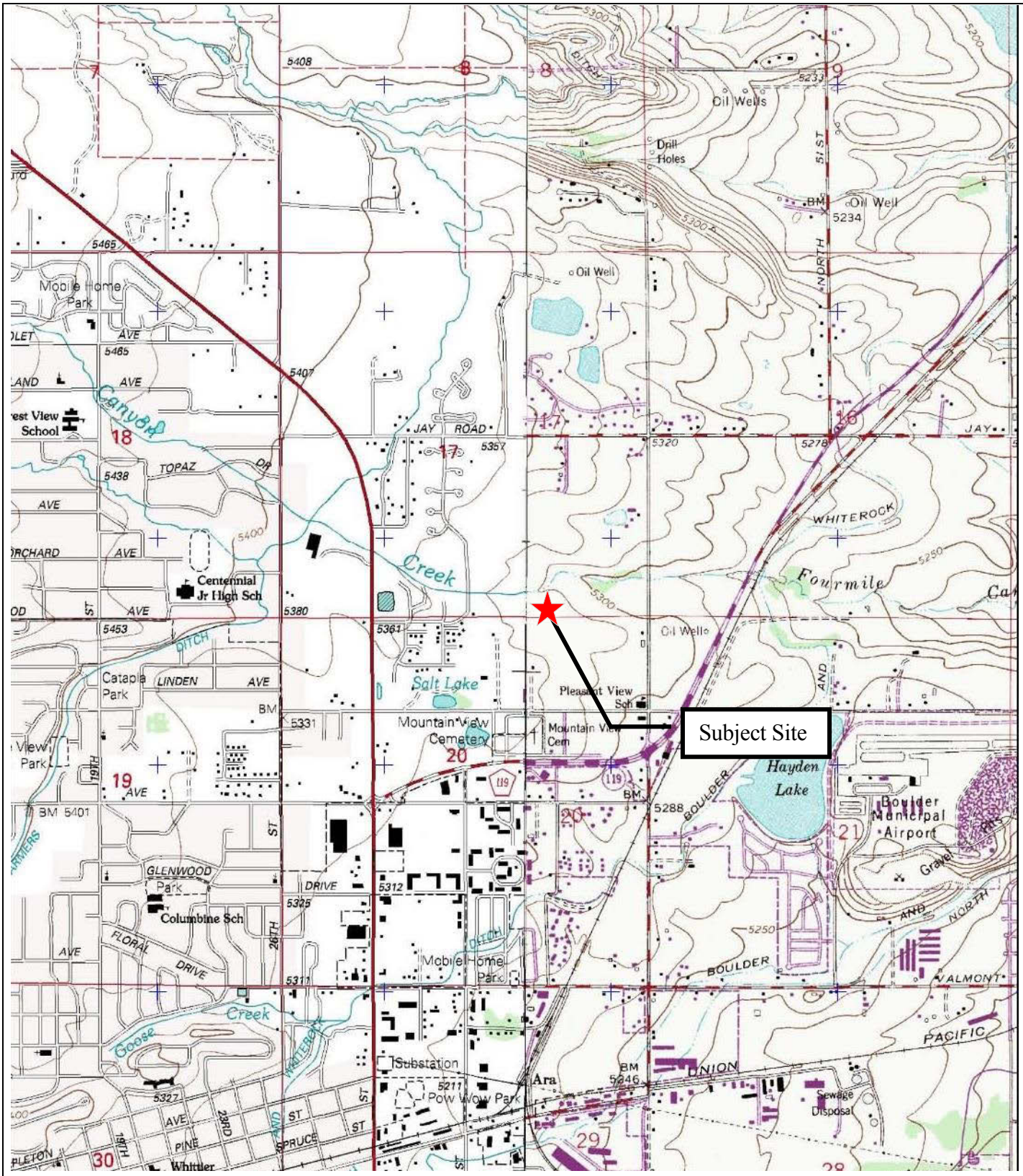
Historical Topographic Maps, purchased from EDR, 1904, 1951, 1967, 1971, 1979 (Niwot Quadrangle) and 1904, 1957, 1966, and 1971, 1979 (Boulder Quadrangle);

EDR-Vapor Encroachment Screen, 4525 Palo Parkway, Boulder, Colorado 80301,, Inquiry Number 4221742.6s, dated March 4, 2015; and

EDR-Radius Map with Geocheck, 4525 Palo Parkway, Boulder, Colorado 80301,, Inquiry Number 4221742.2s, dated March 2, 2015.

APPENDIX A

Figures



LEGEND

N

SITE LOCATION

SITE LOCATION MAP

4525 Palo Parkway
Boulder, Colorado 80301

FIGURE 1
Job No: 3011.05

FARMER ENVIRONMENTAL GROUP

LEGEND

N

SUBJECT PROPERTY LINE

SITE MAP

4525 Palo Parkway
Boulder, Colorado 80301

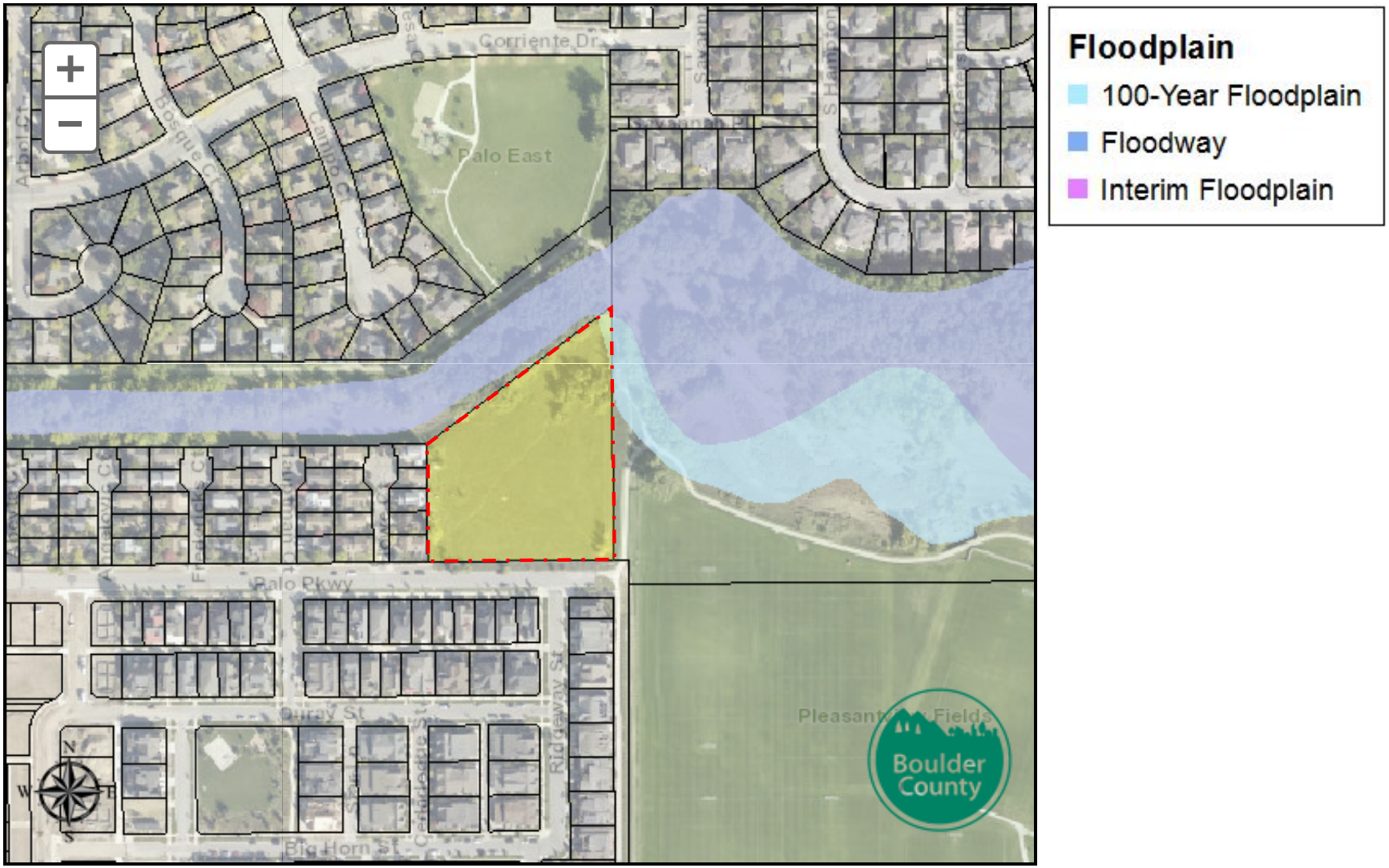
FIGURE 2
Job No: 3011.05

FARMER ENVIRONMENTAL GROUP

APPENDIX B

Subject Site Documents

Boulder County Floodplain Map



U.S. Fish and Wildlife Service

National Wetlands Inventory

Palo Park

Mar 2, 2015

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

Riparian

- Herbaceous
- Forested/Shrub

Riparian Status

- Digital Data

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

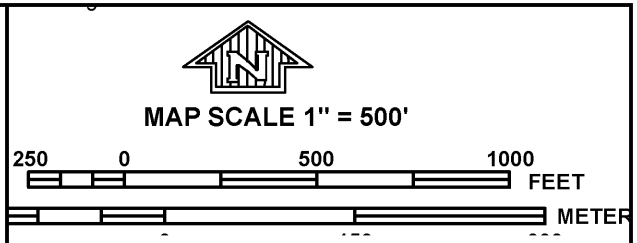
COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

Floodplain Boundary

Floodway boundary



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0392J

FIRM

FLOOD INSURANCE RATE MAP

BOULDER COUNTY, COLORADO

AND INCORPORATED AREAS

PANEL 392 OF 615

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BOULDER, CITY OF	080024	0392	J
BOULDER COUNTY	080023	0392	J

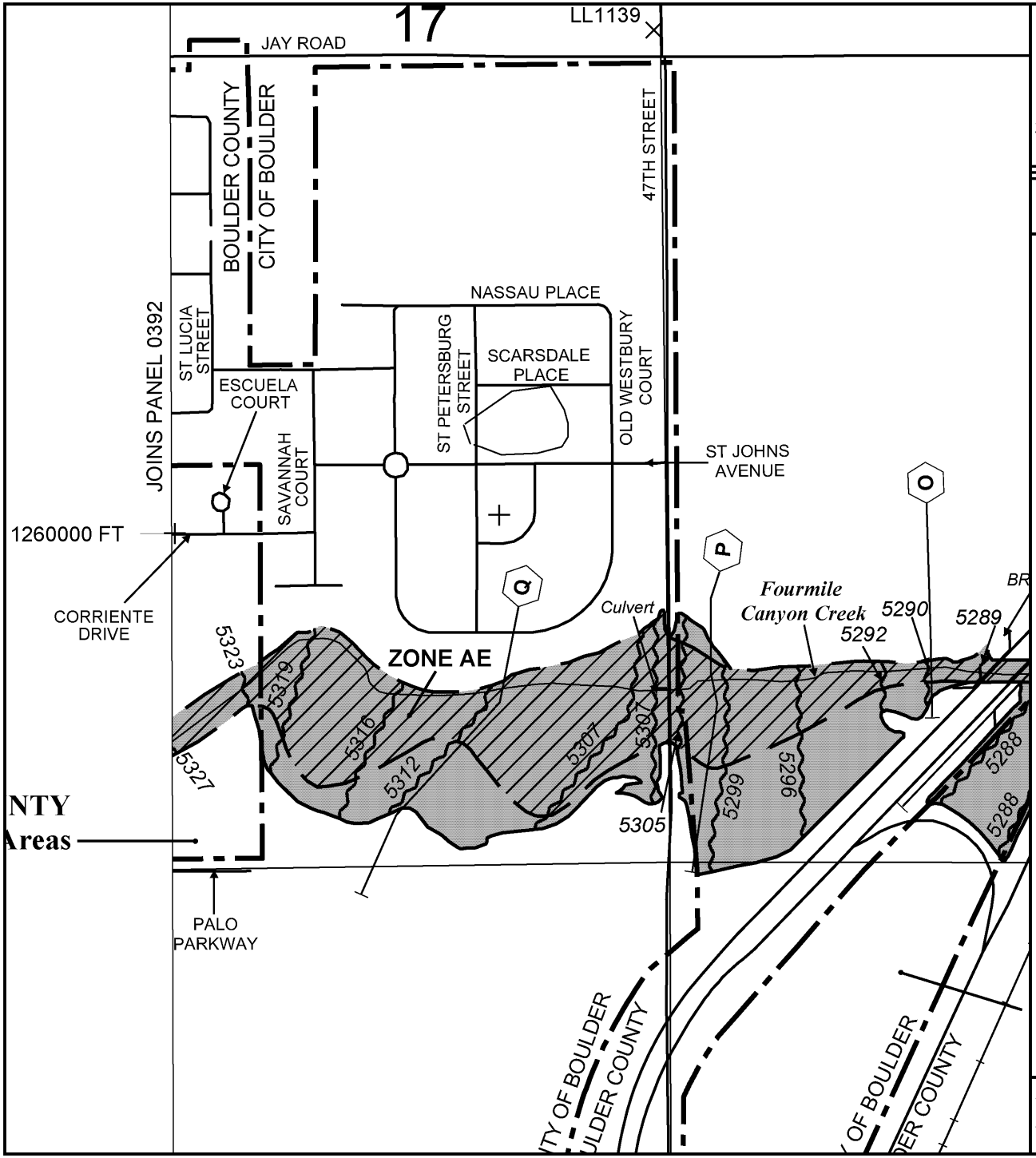
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08013C0392J

MAP REVISED
DECEMBER 18, 2012

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



MAP SCALE 1" = 500'

250 0 500 1000 FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0411J

FIRM

FLOOD INSURANCE RATE MAP

BOULDER COUNTY, COLORADO

AND INCORPORATED AREAS

PANEL 411 OF 615

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BOULDER, CITY OF	080024	0411	J
BOULDER, COUNTY	080023	0411	J

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08013C0411J

MAP REVISED
DECEMBER 18, 2012

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Complete Property Report for Account R0098286

Today's Date: 2/20/2015

Property

Property Address:	4525 PALO PKWY
City:	BOULDER
ParcelNumber:	146317402031
Owner:	CITY OF BOULDER
Mailing Address:	P O BOX 791
City, State, Zip:	BOULDER CO, CO 80304
Sec-Town-Range:	17 -1N -70
Subdivision:	PALO PARK 4 - BOV
Legal Description:	OUTLOT E PALO PARK 4
Square Feet:	141,650
Acres:	3.25

Assessment

Address:	4525 PALO PKWY	Parcel No:	146317402031
Tax Area:	004253	Neighborhood:	PALO PARK
No. of Improvements:	0		

Deeds

Deed#	Recorded	Sale Date	Sale Price
2825463	12/12/2006	12/26/2006	$0.00
2825464	12/12/2006	12/26/2006	$0.00
935022	8/10/1988	8/10/1988	$0.00
614474	4/11/1984	4/11/1984	$0.00

Total Account Value

	Actual	Assessed
Total:	2000000	580000
Structure:	0	0
Land:	2000000	580000
XFeatures:	0	0
Mill Levy	85.742000	

Zoning

Property Address:	4525 PALO PKWY
Parcel No:	146317402031
Zoning:	SR
Wind Loads:	127
Snow Loads:	30

Land Use Department Permits and Dockets

Floodplain

Property Address:	4525 PALO PKWY
Parcel No:	146317402031
Floodzone:	AE, X
Floodway:	Yes
FIRM Map Num:	08013C0392J,08013C0411J

Elections

Property Address:	4525 PALO PKWY
Parcel No:	146317402031
Precinct:	2181007812
US Congressional District:	2
State Senate District:	18

State House District:	10
County Commissioner's District:	1

Survey Plat

No survey plat is associated with this location.

APPENDIX C

Subject Site Photographs

Photo 1: Overview of Subject Site, Looking East to West

Photo 2: Drainage Swale, East Boundary

Photo 3: Storm Drain, Southwest Boundary

Photo 4: North Boundary, Looking from North (in Four Mile Creek Drainage) to South

Photo 5: Plywood/Press Board Debris, Center of Subject Site

Subject Site looking to North

APPENDIX D

ASTM Questionnaires and Records of Communication

Phase I Environmental Site Assessment – USER Questionnaire

The following questionnaire is provided by Farmer Environmental Group, LLC (Farmer) in order to complete a Phase I Environmental Site Assessment (Phase I ESA) of the referenced "Subject Property" identified below. This questionnaire has been provided to the USER (client and assigns) for completion of the Phase I ESA report in general accordance with the ASTM International Standard E1527-13. In the event that this questionnaire is not completed by the USER, it will be documented in the Phase I ESA report.

Subject Property Description:

Site Name: Palo Park

Site Address: 4525 Palo Parkway **City:** Boulder **State:** CO

User/User Representative Information:

USER Company Name:	Boulder Housing Partners
Name of the Person Completing this Questionnaire on behalf of the USER:	Lauren Schevets
Affiliation of Person Completing this Questionnaire with the USER:	Project Manager
Address of Person Completing this Questionnaire:	4800 N Broadway Boulder, CO 80304
Phone Number and/or Email of Person Completing this Questionnaire:	720-473-4464
Signature of Person Completing this Questionnaire:	
Date of Completion of this Questionnaire:	3/2/15

Directions: Please answer all of the following questions to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response. Additional details necessary to explain any yes or unknown responses should be provided in the "Comments" column or attached to this document as necessary. Note that *"UK"* indicates *"Unknown"*.

Please return this completed questionnaire to the sender or via facsimile: (303) 904-2038

QUESTION		RESPONSE			COMMENTS
		Y	N	UK	
1	Is the USER aware of any pending, threatened or past litigation relative to hazardous substances or other environmental concerns in, on or related to the Subject Property?		X		
2	Is the USER aware of any pending, threatened or past administrative proceedings relative to hazardous substances or other environmental concerns in, on or related to the Subject Property?		X		
3	Is the USER aware of any notices from government agencies regarding violations or citations pertinent to environmental laws or possible relation to hazardous substances or petroleum products regarding the Subject Property?		X		
4	Is the USER aware of any environmental related leans against the Subject Property?		X		
5	Is the USER aware of any activity or use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the Subject Property and/or that have been filed under a regulatory registry?	X			This property is within the airport influence zone for Boulder Municipal Airport
6	Does the USER of this ESA have any specialized knowledge or experience related to the Subject Property or nearby sites pertaining to the environmental quality of the Subject Property or nearby sites?		X		
7	To the best knowledge of the USER, does the purchase price reasonably reflect the fair market value (FMV) of the Subject Property?		X		The site will likely be transferred at no cost from the City to Boulder Housing Partners to help address the community goal of providing affordable housing.
7A	If the FMV is lower than the purchase price, is the USER aware of any environmental issues such as contamination, litigation, or land use restrictions that have impacted the FMV of the Subject Property?		X		
8	Is the USER aware of any past uses of the Subject Property that may have adversely impacted the environmental conditions?		X		
9	Is the USER aware of any specific current or past bulk chemical or hazardous material storage on the Subject Property that may have adversely impacted the environmental conditions?		X		
10	Is the USER aware of any spills or releases of chemicals or hazardous materials on the Subject Property?		X		
11	Is the USER aware of environmental cleanup/remediation or investigations on the Subject Property?		X		
12	Is the USER aware of any issues that indicate a potential for environmental concerns at the Subject Property?		X		

The following documentation should be attached to this completed questionnaire as available:

Environmental site assessment reports (i.e., Phase I, Phase II, tank testing results, radon, lead paint, or asbestos testing, etc.)
Environmental compliance audit reports; risk assessments; and recorded Activity and Use Limitations (AULs)
Environmental permits (i.e., solid waste disposal, hazardous waste disposal, wastewater, NPDES, underground injection, etc.)
Registrations for underground storage tanks (USTs) and aboveground storage tanks (ASTs)
Registrations for underground injection systems
Material safety data sheets
Community right-to-know plan
Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans, etc
Reports regarding hydrogeological or geotechnical conditions on the property and surrounding area
Notices/correspondence from any agency relating to past/current violations of environmental laws, or liens encumbering the property
Hazardous waste generator notices or reports
Other:

Thank you for your time in completing this questionnaire. Feel free to contact Farmer with any questions or comments.

APPENDIX E

Historical Resources

Palo Park
4525 Palo Parkway
Boulder, CO 80301

Inquiry Number: 4221742.9
March 03, 2015

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

Aerial Photography March 03, 2015

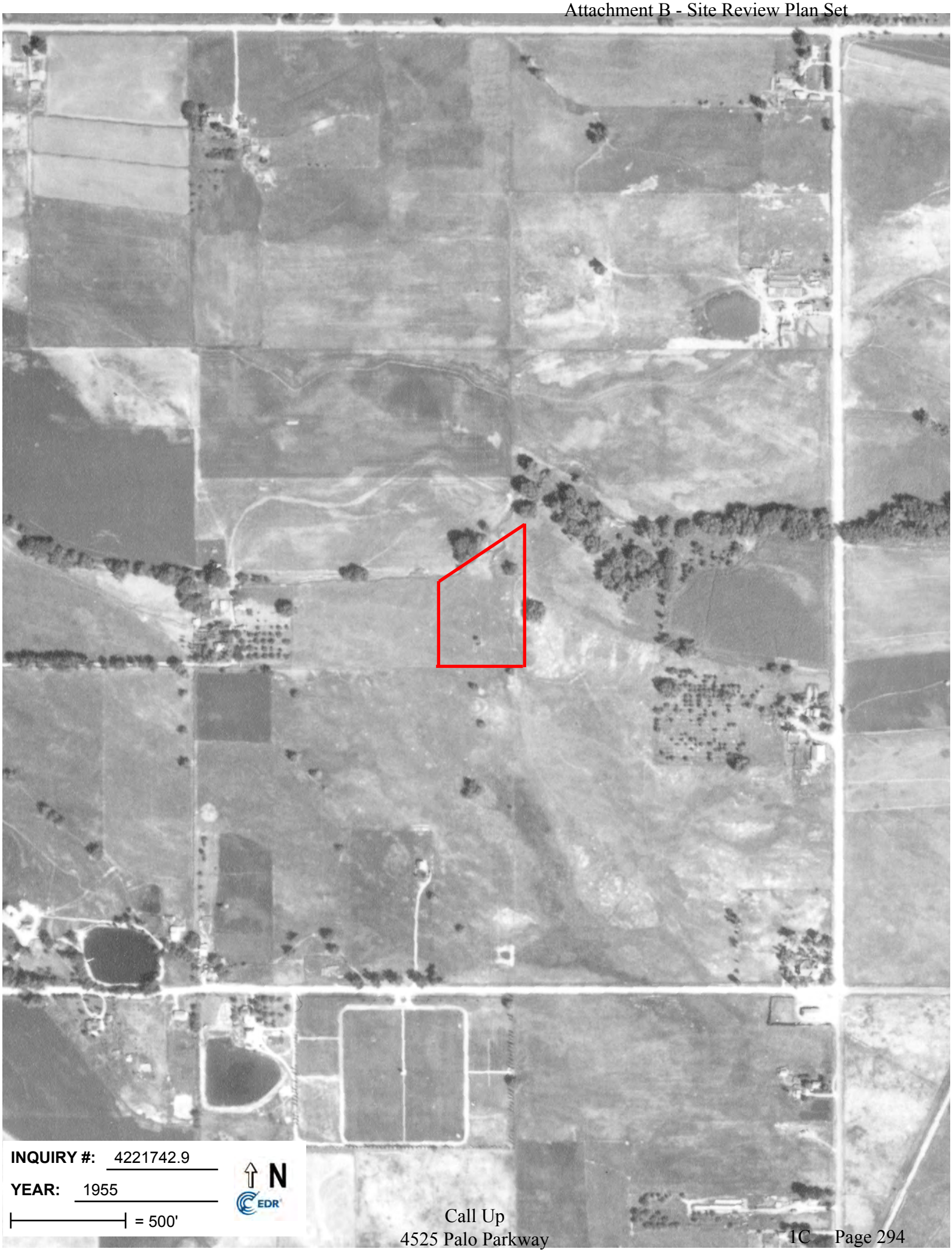
Target Property:

4525 Palo Parkway
Boulder, CO 80301

Year	***Scale***	***Details***	***Source***
1949	Aerial Photograph. Scale: 1"=500'	Flight Date: July 14, 1949	EDR
1953	Aerial Photograph. Scale: 1"=500'	Flight Date: September 21, 1953	USGS
1955	Aerial Photograph. Scale: 1"=500'	Flight Date: September 04, 1955	USDA
1963	Aerial Photograph. Scale: 1"=500'	Flight Date: May 13, 1963	USGS
1966	Aerial Photograph. Scale: 1"=500'	Flight Date: October 04, 1966	USGS
1971	Aerial Photograph. Scale: 1"=500'	Flight Date: August 06, 1971	USGS
1978	Aerial Photograph. Scale: 1"=500'	Flight Date: August 17, 1978	EDR
1978	Aerial Photograph. Scale: 1"=500'	Flight Date: August 17, 1978	USGS
1983	Aerial Photograph. Scale: 1"=500'	Flight Date: October 05, 1983	USGS
1988	Aerial Photograph. Scale: 1"=500'	Flight Date: September 04, 1988	USGS
1994	Aerial Photograph. Scale: 1"=500'	Flight Date: September 27, 1994	USGS
1999	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: October 04, 1999	USGS/DOQQ
2002	Aerial Photograph. Scale: 1"=500'	Flight Date: April 23, 2002	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	USDA/NAIP
2011	Aerial Photograph. Scale: 1"=500'	Flight Year: 2011	USDA/NAIP

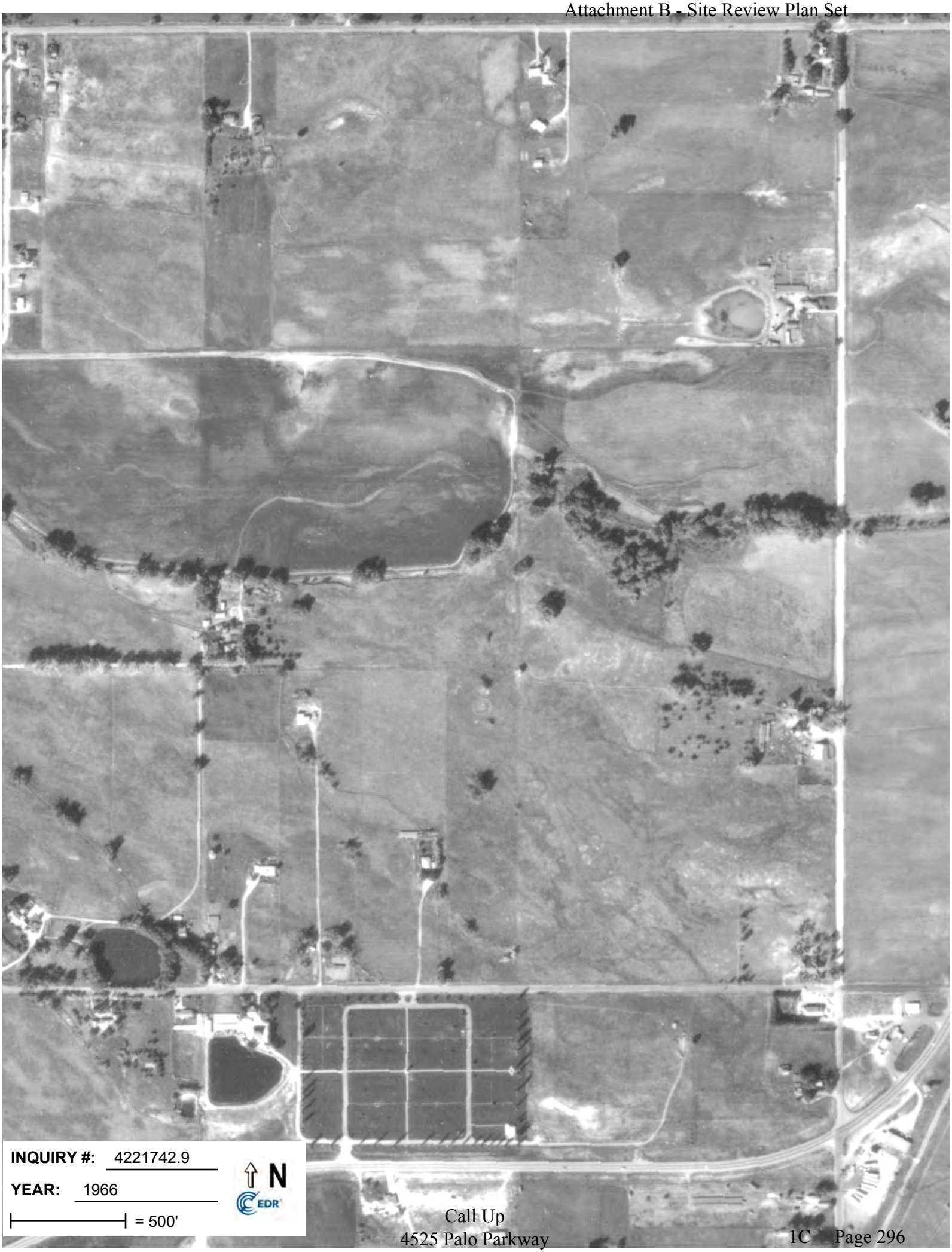
INQUIRY #: 4221742.9
YEAR: 1949
= 500'
N
EDR

Call Up
4525 Palo Parkway



Call Up
4525 Palo Parkway

Call Up
4525 Palo Parkway



Call Up
4525 Palo Parkway

Call Up
4525 Palo Parkway

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YEAR: 1978
= 500'
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EDR

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YEAR: 1978
= 500'
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EDR

INQUIRY #: 4221742.9
YEAR: 1983
= 500'
N
EDR

Call Up
4525 Palo Parkway

INQUIRY #: 4221742.9
YEAR: 1994
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EDR

INQUIRY #: 4221742.9
YEAR: 1999
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EDR

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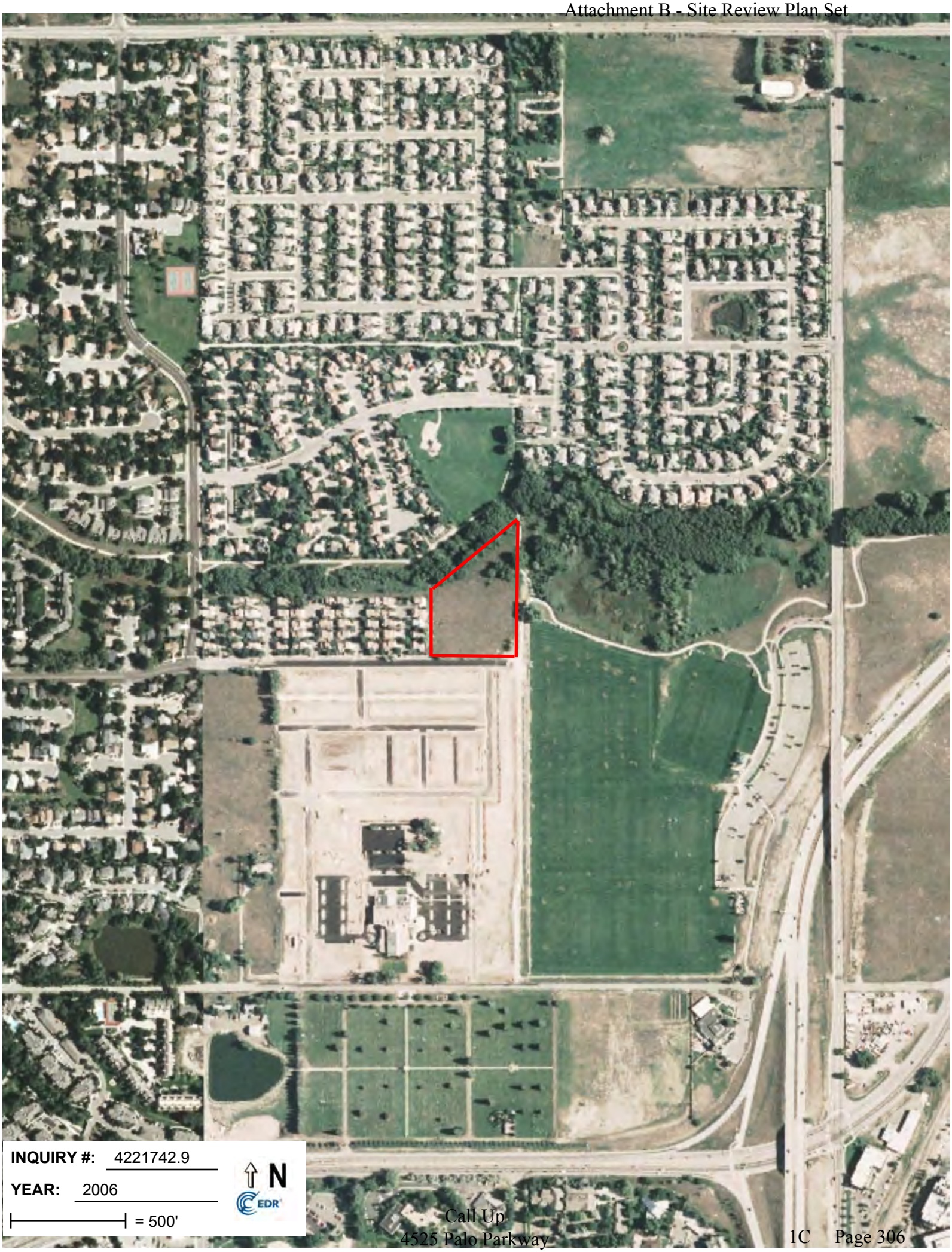
EDR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EDR

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YEAR: 2009
= 500'
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EDR

INQUIRY #: 4221742.9
YEAR: 2011
= 500'
N
EDR

Palo Park
4525 Palo Parkway
Boulder, CO 80301

Inquiry Number: 4221742.4
March 02, 2015

EDR Historical Topographic Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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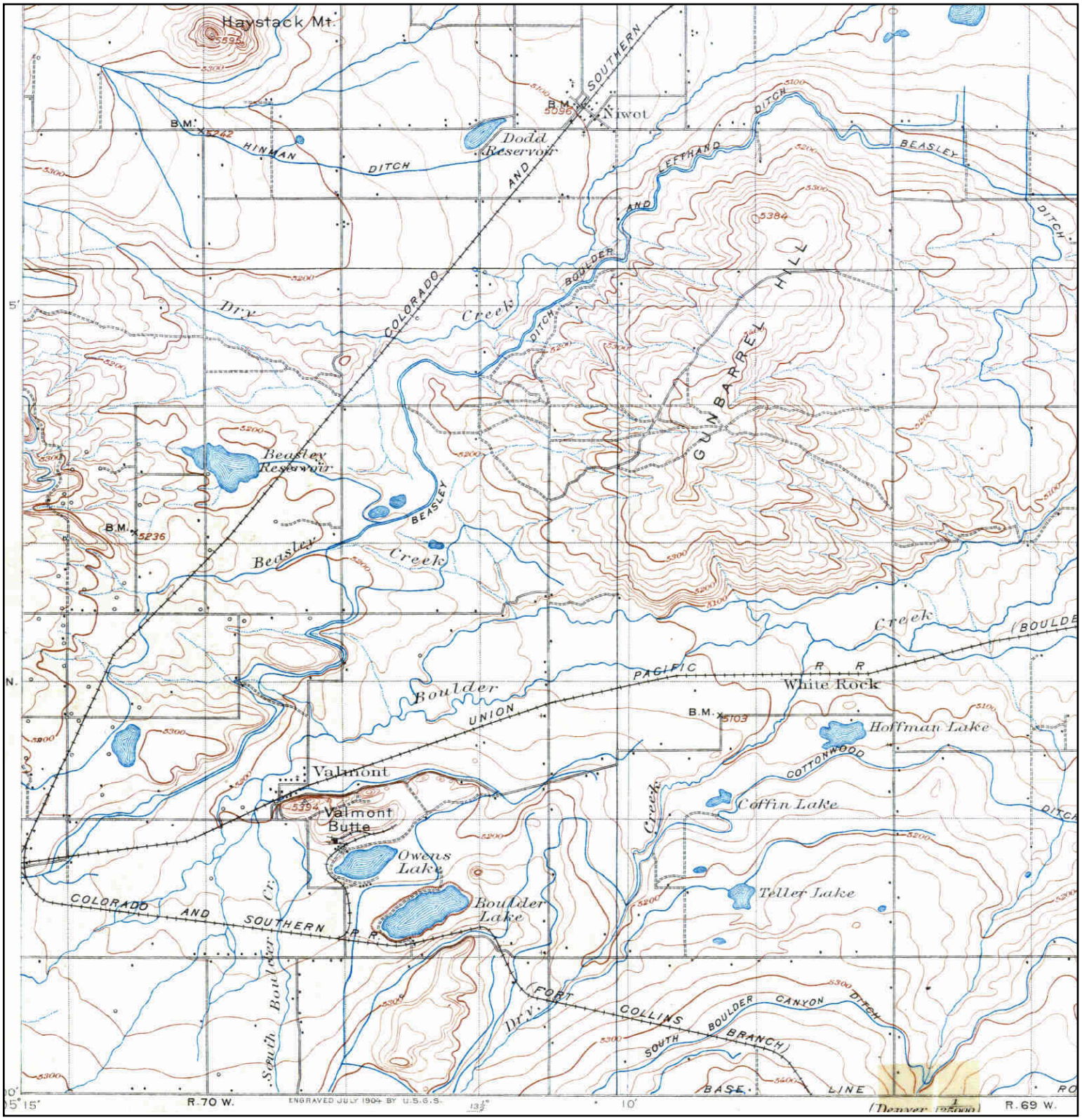
Historical Topographic Map



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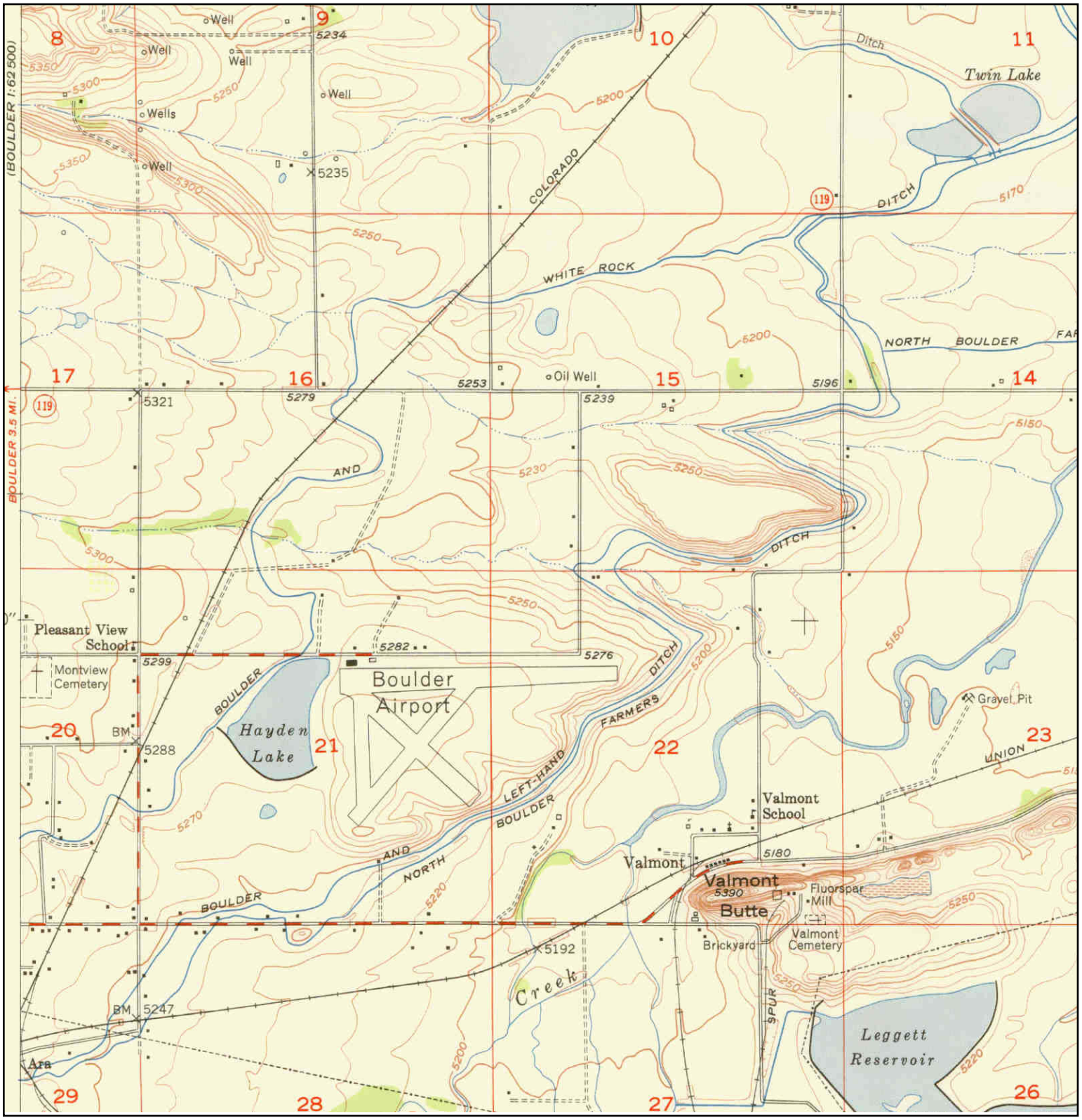

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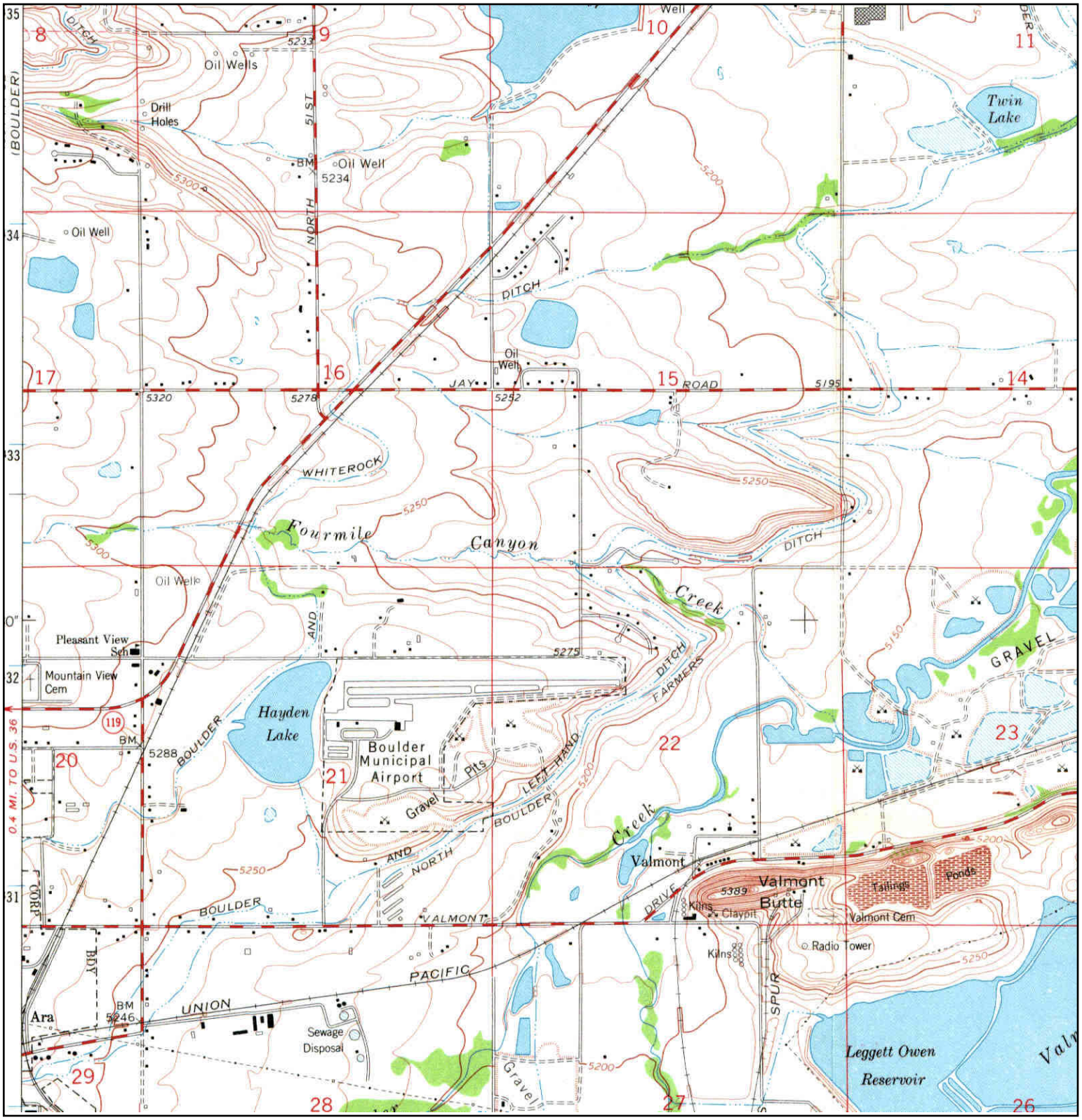

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Historical Topographic Map

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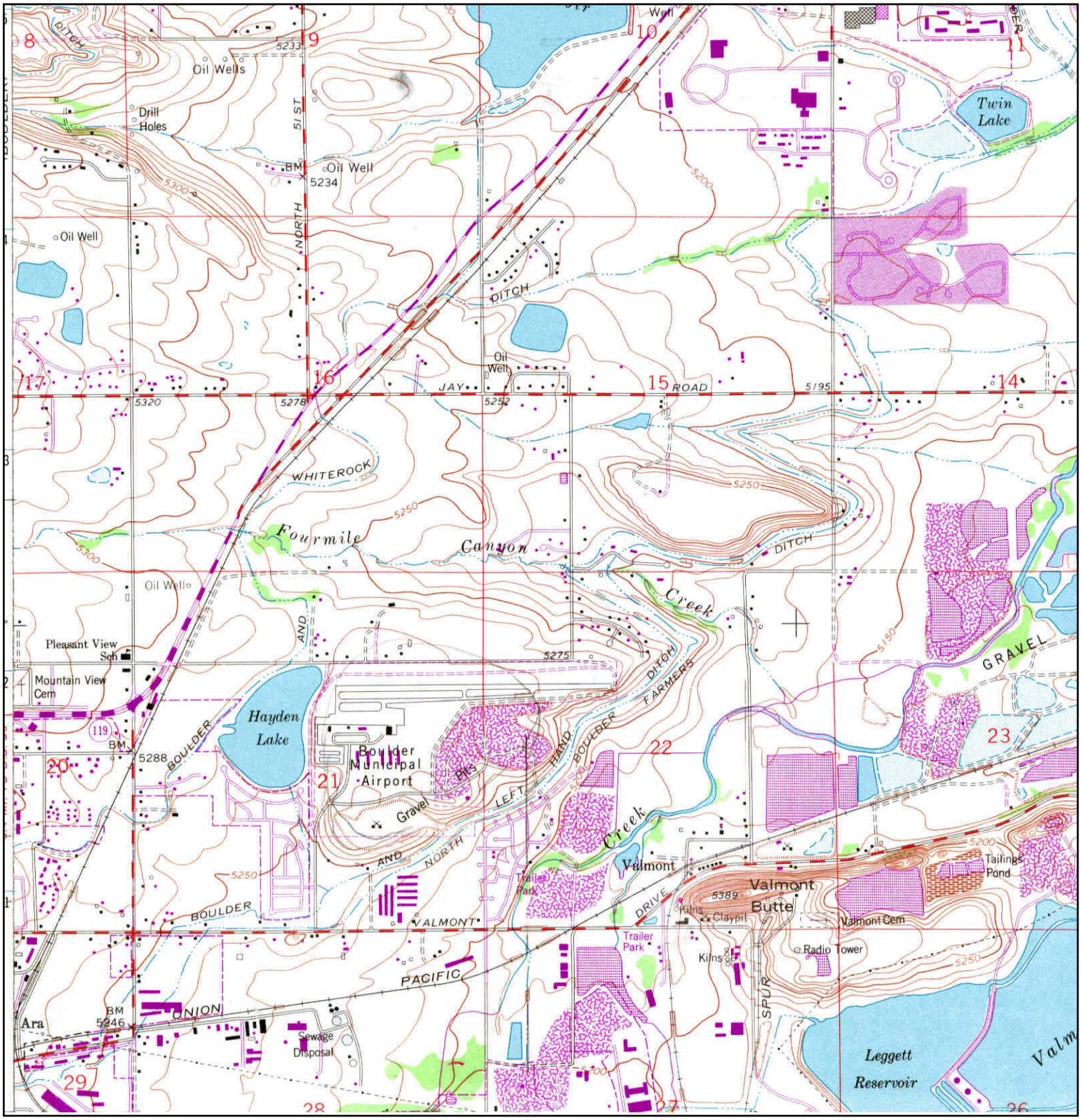

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Historical Topographic Map

UNIVERSITY OF MARYLAND

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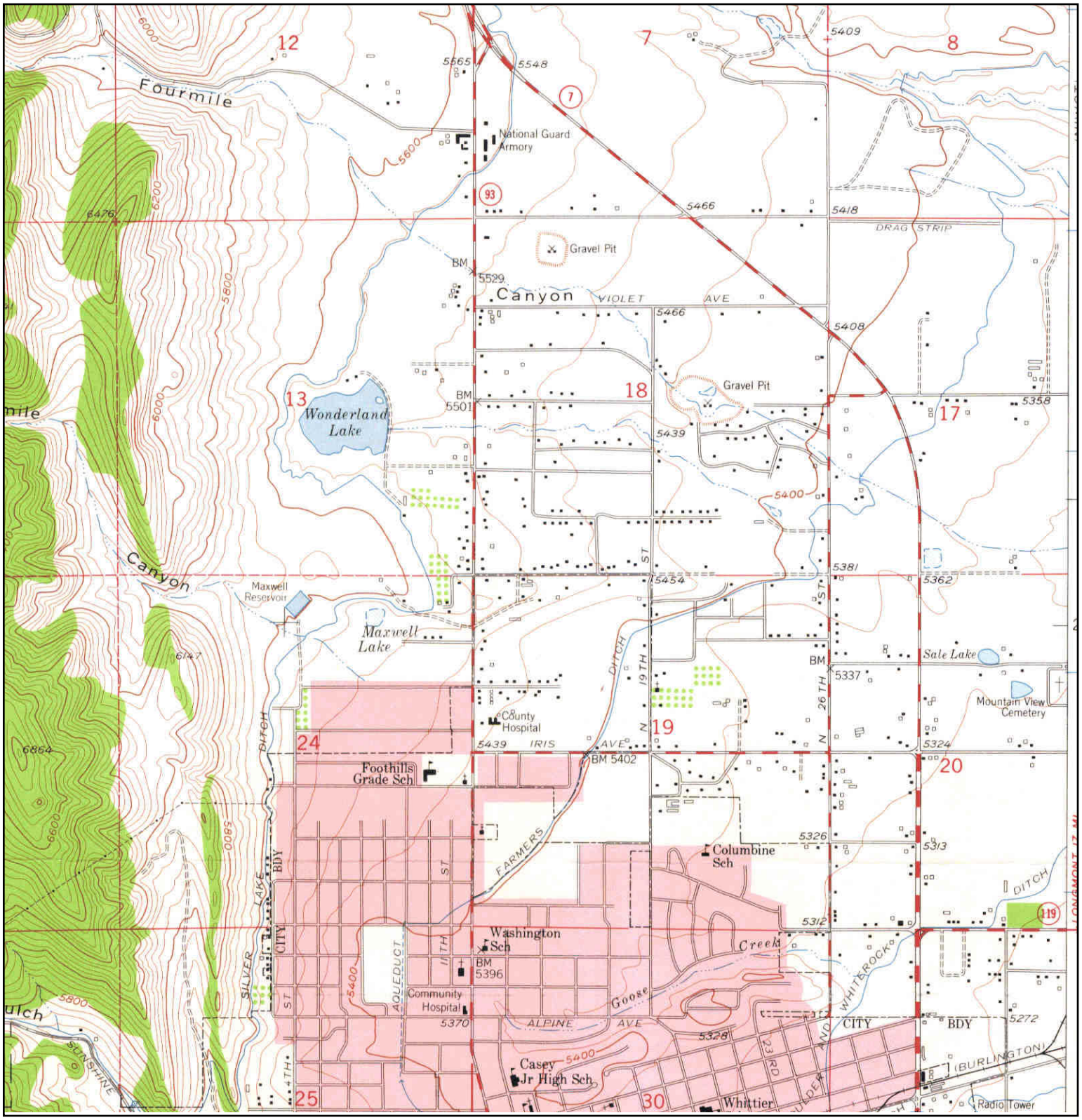

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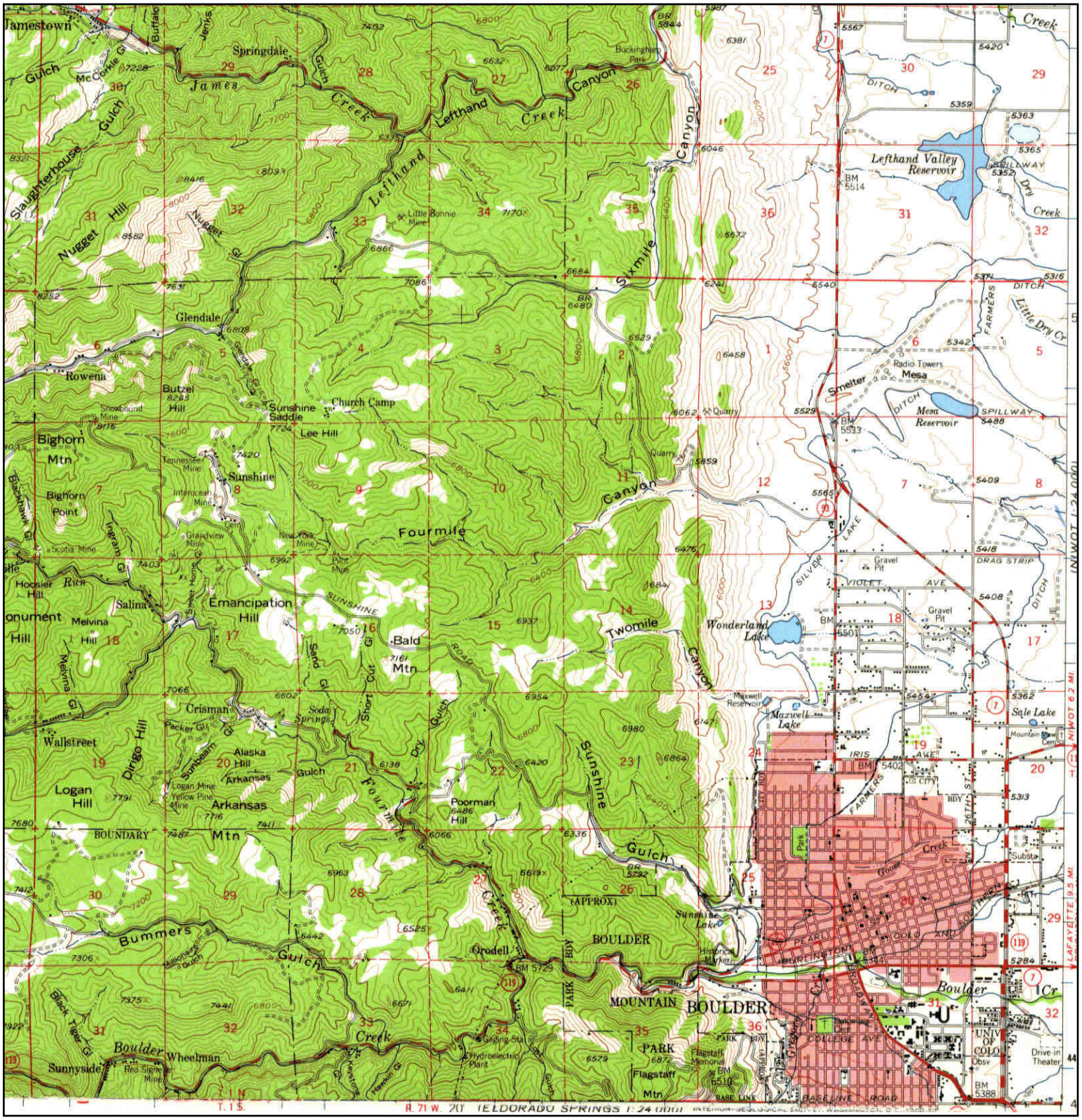

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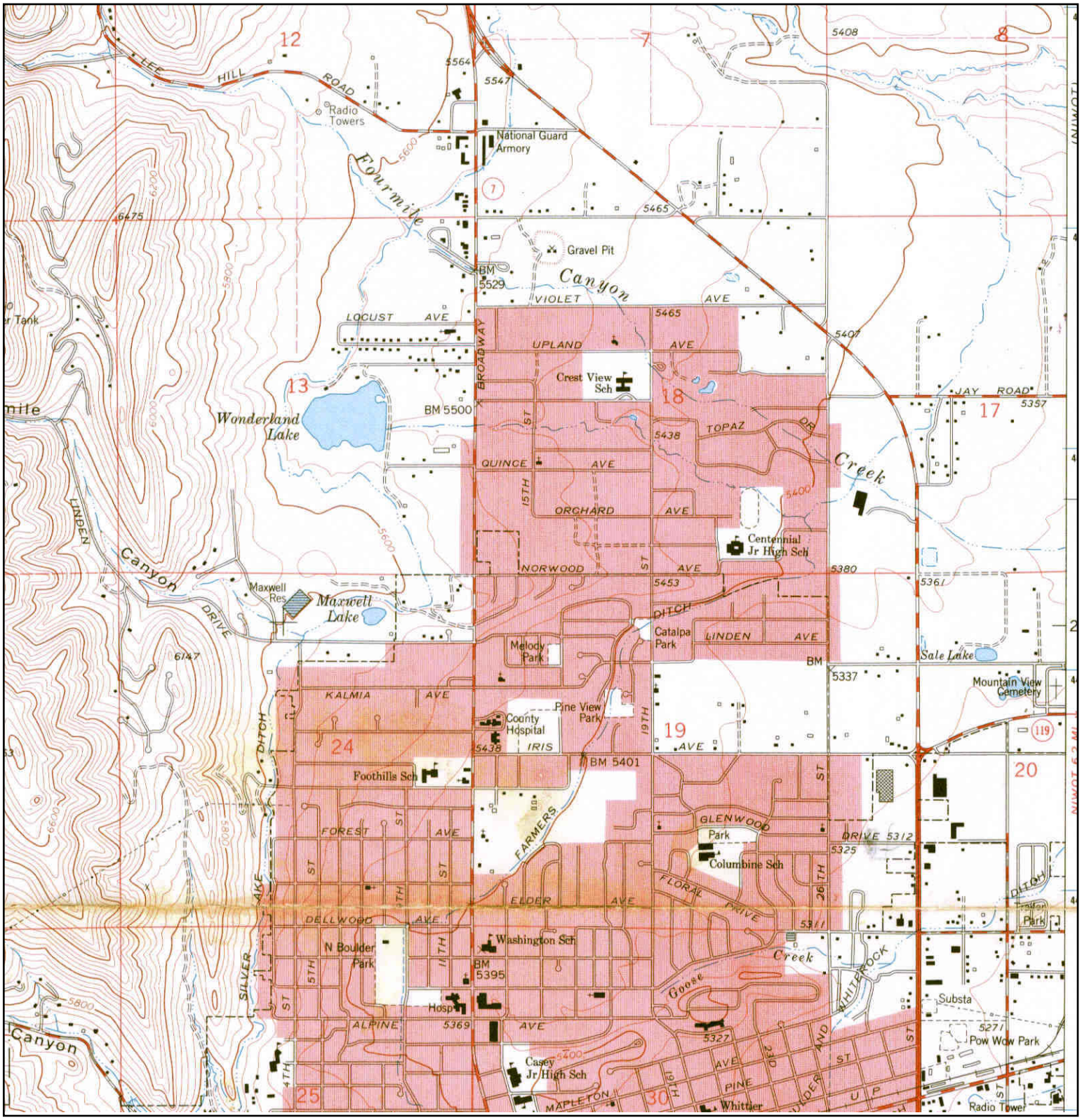

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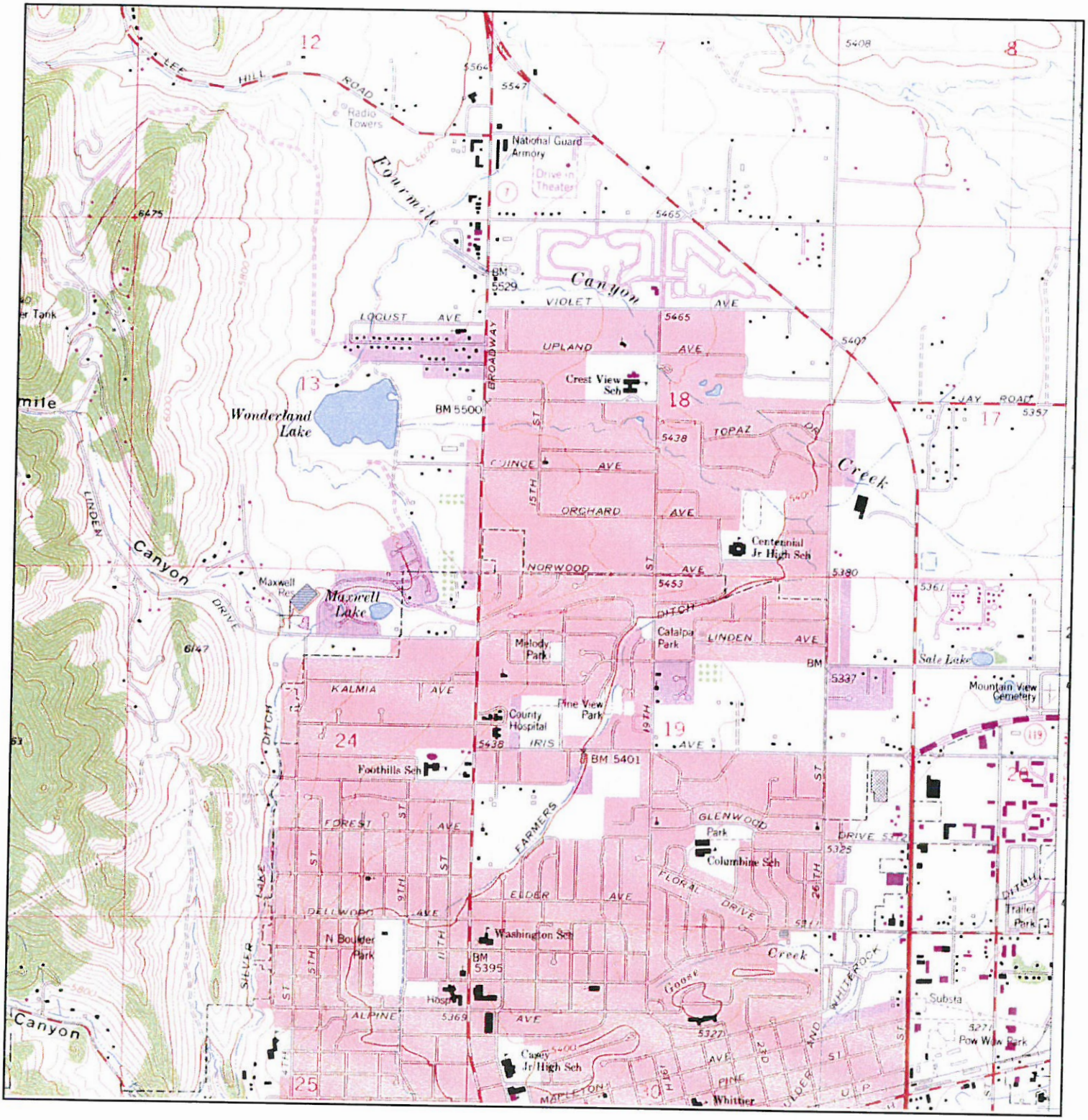

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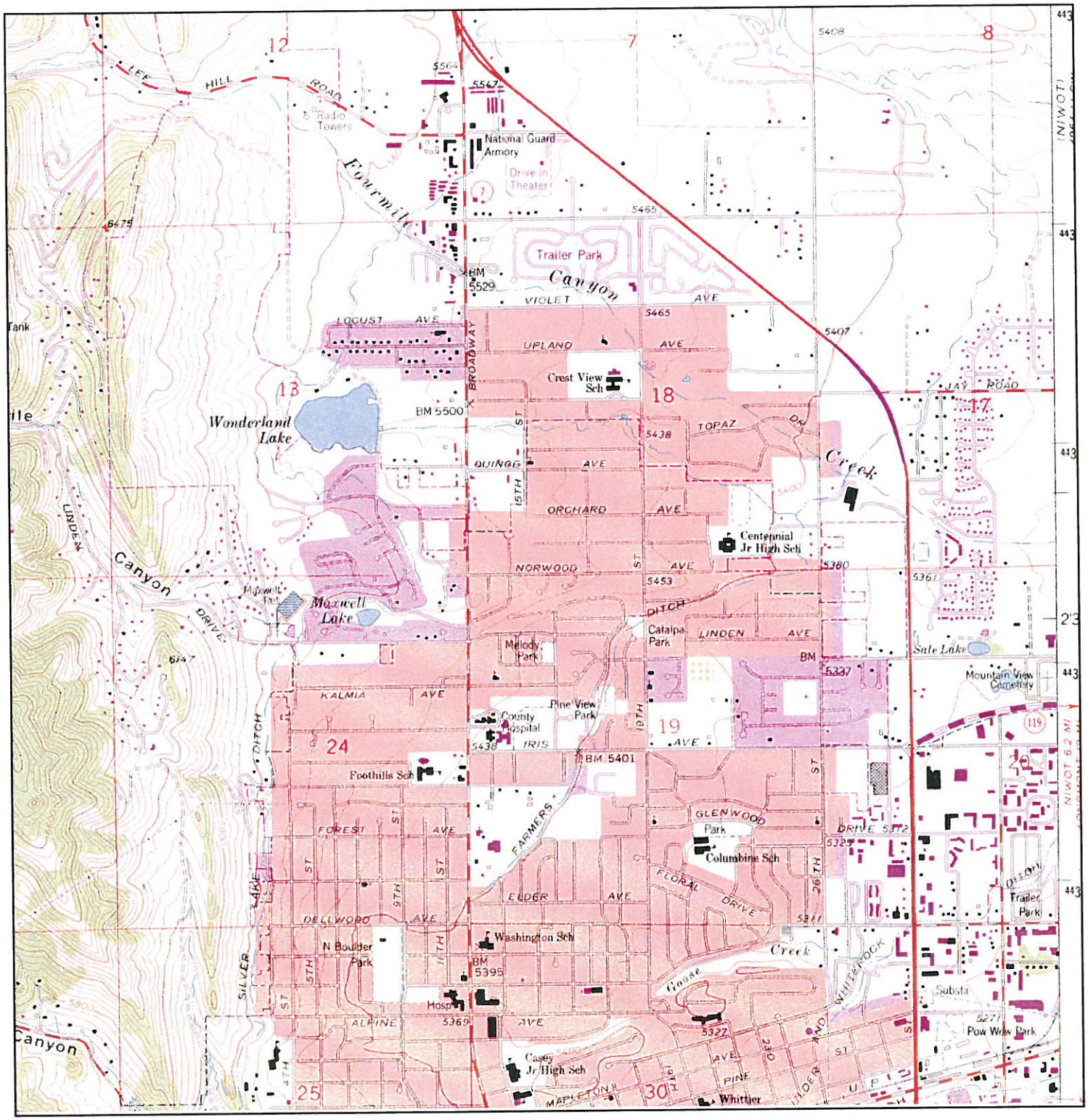
Historical Topographic Map



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Palo Park
4525 Palo Parkway
Boulder, CO 80301

Inquiry Number: 4221742.3
March 02, 2015

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

3/02/15

Site Name:
Palo Park
4525 Palo Parkway
Boulder, CO 80301

Client Name:
Farmer Environmental Group
309 North Galloway
Mesquite, TX 75149

EDR Inquiry # 4221742.3

Contact: Jennifer Day

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Farmer Environmental Group were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name: Palo Park
Address: 4525 Palo Parkway
City, State, Zip: Boulder, CO 80301
Cross Street:
P.O. # 3011.TBD
Project: 3011.TBD
Certification # 3F01-4219-A5FD

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results
Certification # 3F01-4219-A5FD

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Palo Park
4525 Palo Parkway
Boulder, CO 80301

Inquiry Number: 4221742.5
March 03, 2015

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Findings

City Directory Images

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2013	☑	☐	Cole Information Services
2008	☑	☐	Cole Information Services
2003	☑	☐	Cole Information Services
1999	☑	☐	Cole Information Services
1995	☑	☐	Cole Information Services
1992	☑	☐	Cole Information Services
1987	☐	☐	Polk's City Directory
1983	☐	☐	Polk's City Directory
1978	☐	☐	Polk's City Directory
1973	☐	☐	Polk's City Directory
1968	☐	☐	Polk's City Directory
1962	☐	☐	Polk's City Directory

RECORD SOURCES

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FINDINGS

TARGET PROPERTY STREET

4525 Palo Parkway
Boulder, CO 80301

Year	CD Image	Source	
PALO PKWY			
2013	pg A1	Cole Information Services	
2008	pg A2	Cole Information Services	
2003	pg A3	Cole Information Services	
1999	pg A4	Cole Information Services	
1987	-	Polk's City Directory	Street not listed in Source
1983	-	Polk's City Directory	Street not listed in Source
1978	-	Polk's City Directory	Street not listed in Source
1973	-	Polk's City Directory	Street not listed in Source
1968	-	Polk's City Directory	Street not listed in Source
1962	-	Polk's City Directory	Street not listed in Source
PALO PKY			
1995	pg A5	Cole Information Services	
1992	pg A6	Cole Information Services	

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

PALO PKWY 2013

2964	CHERYL MICHEL
2998	0 1 24 HOUR A LOCKSMITH
3072	PAUL MAHON
3084	KATHERINE ROESKE
3096	OCCUPANT UNKNOWN
3102	PATRICIA CHAPMAN
3134	DEE PERRY
3166	HARVEY LANGBERG
3198	MIA JAKSIC
3206	CHRISTOPHER FLETCHER
3212	OCCUPANT UNKNOWN
3224	OCCUPANT UNKNOWN
3236	OCCUPANT UNKNOWN
3248	MATTHEW ERICKSON
3254	OCCUPANT UNKNOWN
3266	OCCUPANT UNKNOWN
3274	JEANETTE KING
3288	MARGARET LLOYD
3292	STACEY NYLAND
3298	ROOPKUMAR DODANI

Target Street	Cross Street	Source
✓	-	Cole Information Services

PALO PKWY 2008

2964	DUSTIN SHIPLEY
3072	PAUL MAHON
3266	MATTHEW MOGEN
3274	OCCUPANT UNKNOWN

Target Street	Cross Street	Source
✓	-	Cole Information Services

PALO PKWY 2003

2964 TARA KELLY

Target Street	Cross Street	Source
✓	-	Cole Information Services

PALO PKWY 1999

2880	OCCUPANT UNKNOWN
2964	CHERYL MICHEL
	DONALD ABBOTT
	MANUEL CABALLERO

Target Street	Cross Street	Source
✓	-	Cole Information Services

PALO PKY 1995

2800	ASEL, J
	BALLIF, PAUL S
	BAROWAY, F B
	BEATTIE, ROBERT
	BODEN, J
	BRADFORD, A E
	CARLSON, MILDRED M
	CLEAVLAND, M
	COOK, EDNA
	COSSA, E
	DAY, MILDRED
	GALE, R
	HANNAH, M
	HELM, H W
	KEISER, E
	LAW, E
	LINDER, I D
	MANOR CARE NURSING CTR
	MCCLELLAND, SUSAN
	OGILVIE, E A
	SHELLEDY, LOUISE B
	STEARN, ANITA
	SULLIVAN, MARY M
	WURDEN, AGNES
2964	OCCUPANT UNKNOWNN

Target Street	Cross Street	Source
✓	-	Cole Information Services

PALO PKY 1992

2800	ASEL, J
	BERRY, D
	COLEMAN, C
	CROSSEN, HENRY M
	GRAY, DAVID M
	KAHN, M
	LAHY, DOROTHY I
	MANOR CARE NRSG CT
	OGILVIE, E A
	PETERSON, H R
	SCHNACK, L L
	STALEY, RUTH M
	SULLIVAN, MARY M
	UTHE, M W
2964	CHEN, TE

APPENDIX F

Regulatory Database Report and Documentation

Palo Park
4525 Palo Parkway
Boulder, CO 80301

Inquiry Number: 4221742.2s
March 02, 2015

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

4525 PALO PARKWAY
BOULDER County, CO 80301

COORDINATES

Latitude (North):	40.0442000 - 40° 2' 39.12''
Longitude (West):	105.2496000 - 105° 14' 58.56''
Universal Tranverse Mercator:	Zone 13
UTM X (Meters):	478707.4
UTM Y (Meters):	4432482.5
Elevation:	5317 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	40105-A2 NIWOT, CO
Most Recent Revision:	1979
West Map:	40105-A3 BOULDER, CO
Most Recent Revision:	1979

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20110730, 20110718
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL---------- National Priority List

EXECUTIVE SUMMARY

Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-SQG ..... RCRA - Small Quantity Generators
RCRA-CESQG ..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls
LUCIS ..... Land Use Control Information System

Federal ERNS list

ERNS ..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS ..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Solid Waste Sites & Facilities

State and tribal leaking storage tank lists

LUST TRUST ..... RAP Site Listing
LAST ..... Leaking Aboveground Storage Tank Listing
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST ..... Underground Storage Tank Database

EXECUTIVE SUMMARY

AST ..... Aboveground Tank List
INDIAN UST ..... Underground Storage Tanks on Indian Land
FEMA UST ..... Underground Storage Tank Listing

State and tribal institutional control / engineering control registries

AUL ..... Environmental Covenants and Environmental Use Restrictions List

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing
VCP ..... Voluntary Cleanup & Redevelopment Act Application Tracking Report

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
ODI ..... Open Dump Inventory
SWRCY ..... Registered Recyclers Listing
HIST LF ..... Historical Landfill List
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs
CDL ..... Meth Lab Locations
US HIST CDL ..... National Clandestine Laboratory Register

Local Land Records

LIENS 2 ..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
CO ERNS ..... Spills Database
SPILLS 90 ..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR ..... RCRA - Non Generators / No Longer Regulated
DOT OPS ..... Incident and Accident Data
DOD ..... Department of Defense Sites
FUDS ..... Formerly Used Defense Sites
CONSENT ..... Superfund (CERCLA) Consent Decrees
ROD ..... Records Of Decision
UMTRA ..... Uranium Mill Tailings Sites
US MINES ..... Mines Master Index File
TRIS ..... Toxic Chemical Release Inventory System

EXECUTIVE SUMMARY

TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
RMP	Risk Management Plans
METHANE SITE	Methane Site Investigations - Jefferson County 1980
Methane Investigation	Methane Gas & Swamp Findings
DRYCLEANERS	Drycleaner Facilities
NPDES	Permitted Facility Listing
AIRS	Permitted Facility & Emissions Listing
UMTRA	Uranium Mill Tailings Sites
ASBESTOS	Asbestos Abatement & Demolition Projects
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
PRP	Potentially Responsible Parties
COAL ASH DOE	Steam-Electric Plant Operation Data
2020 COR ACTION	2020 Corrective Action Program List
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
MINES	Permitted Mines Listing
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
LEAD SMELTERS	Lead Smelter Sites
Financial Assurance	Financial Assurance Information Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR US Hist Auto Stat	EDR Exclusive Historic Gas Stations
EDR US Hist Cleaners	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Health's Leaking Underground Storage Tank List.

A review of the LUST list, as provided by EDR, and dated 12/11/2014 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

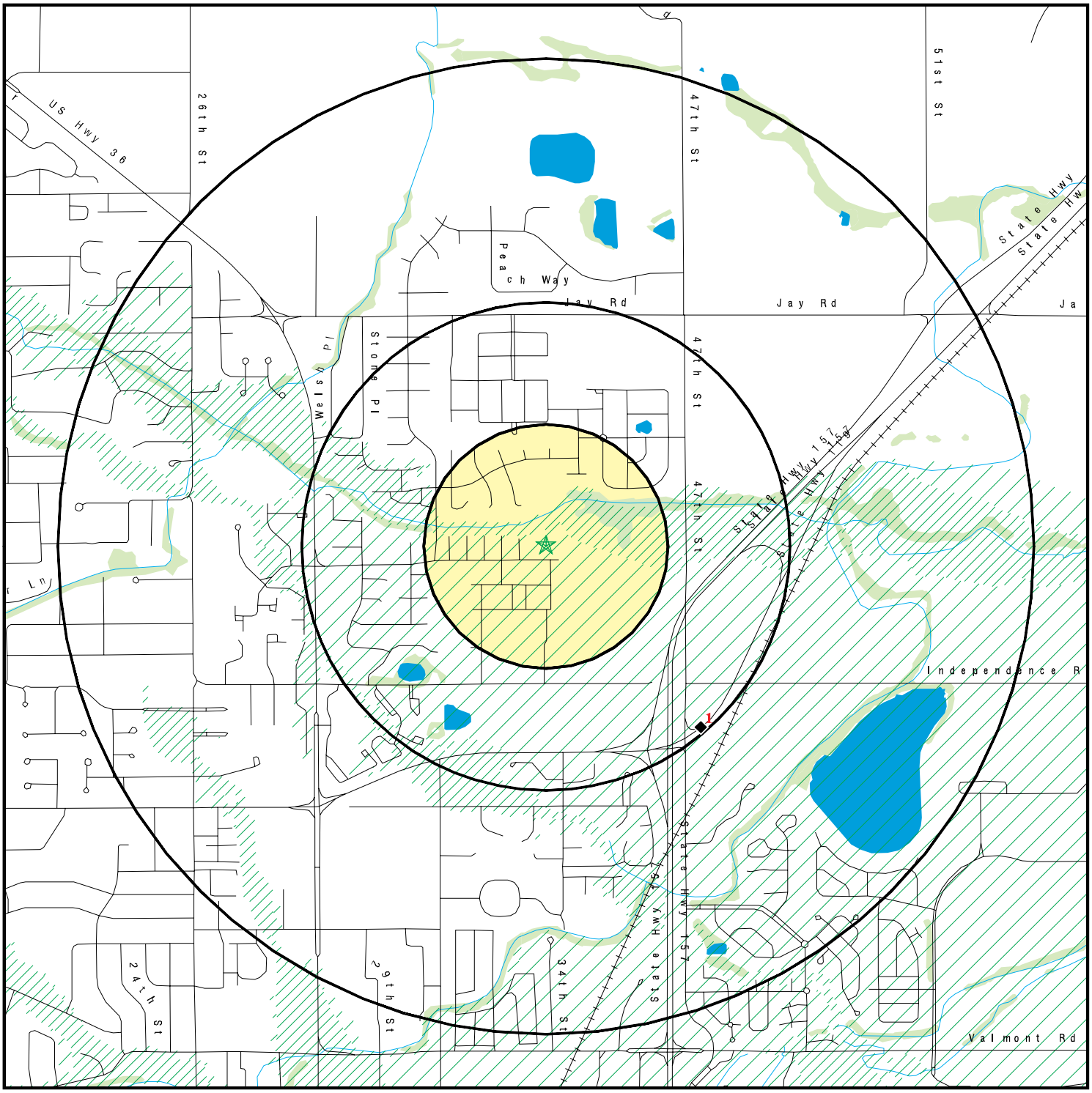
Lower Elevation	Address	Direction / Distance	Map ID	Page
KUM & GO #943 Status: Open	3365 DIAGONAL	SE 1/4 - 1/2 (0.488 mi.)	1	7

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
ILLEGAL DUMP	SWF/LF

OVERVIEW MAP - 4221742.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

0 1/4 1/2 1 Miles

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Palo Park	CLIENT: Farmer Environmental Group
ADDRESS: 4525 Palo Parkway Boulder CO 80301	CONTACT: Jennifer Day
LAT/LONG: 40.0442 / 105.2496	INQUIRY #: 4221742.2s DATE: March 02, 2015 4:31 pm

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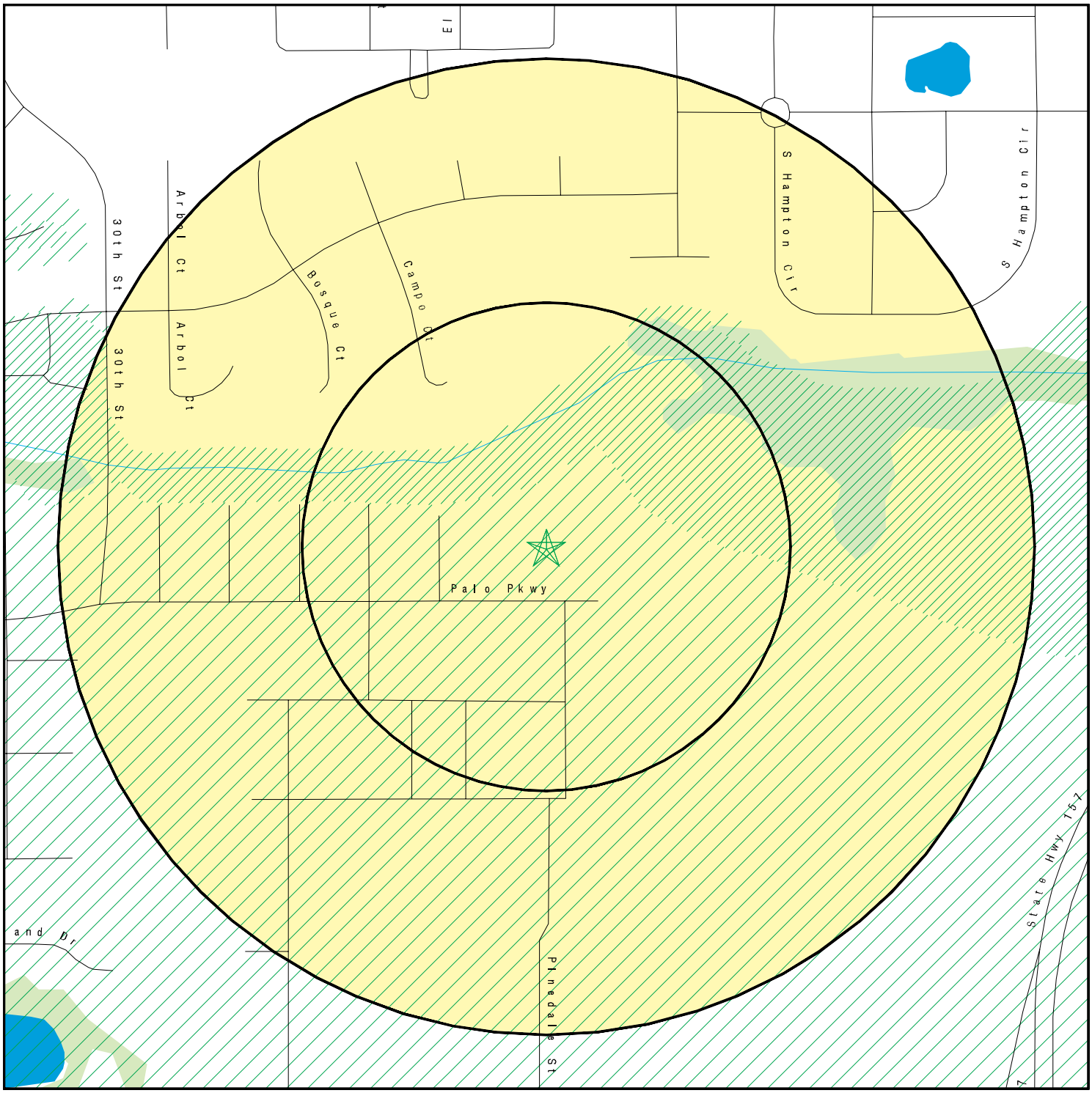
DETAIL MAP - 4221742.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Palo Park ADDRESS: 4525 Palo Parkway Boulder CO 80301 LAT/LONG: 40.0442 / 105.2496	CLIENT: Farmer Environmental Group CONTACT: Jennifer Day INQUIRY #: 4221742.2s DATE: March 02, 2015 4:34 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	1	NR	NR	1
LUST TRUST	0.500		0	0	0	NR	NR	0
LAST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
State and tribal registered storage tank lists								
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CO ERNS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
METHANE SITE	TP		NR	NR	NR	NR	NR	0
Methane Investigation	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	0	NR	NR	NR	0
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
1 SE 1/4-1/2 0.488 mi. 2575 ft.	**KUM & GO #943 3365 DIAGONAL BOULDER, CO 80301**	**LUST**	**S117039043 N/A**

Relative:
Lower

Actual:
5295 ft.

LUST:

Facility Id:	1175
Status:	**Open**
Event ID:	12070
Confirmed Release:	07/03/2014
Log Date:	07/08/2014

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BOULDER	S106423381	ILLEGAL DUMP	47TH & HANCOCK		SWF/LF

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/16/2014	Source: EPA
Date Data Arrived at EDR: 01/08/2015	Telephone: N/A
Date Made Active in Reports: 02/09/2015	Last EDR Contact: 01/08/2015
Number of Days to Update: 32	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 02/27/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 06/08/2015
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/21/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/07/2014	Telephone: 703-603-8704
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 02/27/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 06/08/2015
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/18/2014
Date Data Arrived at EDR: 09/19/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/26/2015
Next Scheduled EDR Contact: 06/15/2015
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/18/2014
Date Data Arrived at EDR: 09/19/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/26/2015
Next Scheduled EDR Contact: 06/15/2015
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/03/2014
Date Data Arrived at EDR: 12/12/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 48

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/16/2015
Next Scheduled EDR Contact: 06/01/2015
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 09/30/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 37

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: Department of Public Health & Environment
Telephone: 303-692-3300
Last EDR Contact: 02/16/2015
Next Scheduled EDR Contact: 06/01/2015
Data Release Frequency: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Sites & Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/06/2014
Date Data Arrived at EDR: 11/18/2014
Date Made Active in Reports: 01/22/2015
Number of Days to Update: 65

Source: Department of Public Health & Environment
Telephone: 303-692-3300
Last EDR Contact: 02/12/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 12/11/2014
Date Data Arrived at EDR: 12/12/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 26

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521
Last EDR Contact: 12/05/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Quarterly

TRUST: Lust Trust Sites

Reimbursement application package. The 1989 Colorado General Assembly established Colorado's Petroleum Storage Tank Fund. The Fund reimburses eligible applicants for allowable costs incurred in cleaning up petroleum contamination from underground and aboveground petroleum storage tanks, as well as for third-party liability expenses. Remediation of contamination caused by railroad or aircraft fuel is not eligible for reimbursement. The Fund satisfies federal Environmental Protection Agency financial assurance requirements. Monies in the Fund come from various sources, predominantly the state environmental surcharge imposed on all petroleum products except railroad or aircraft fuel.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 01/09/2015
Date Made Active in Reports: 02/11/2015
Number of Days to Update: 33

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521
Last EDR Contact: 12/24/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

LAST: Leaking Aboveground Storage Tank Listing

A listing of leaking aboveground storage tank sites.

Date of Government Version: 12/11/2014
Date Data Arrived at EDR: 12/12/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 26

Source: Department of Labor & Employment
Telephone: 303-318-8525
Last EDR Contact: 12/05/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/05/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 12

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 184

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Semi-Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 11/14/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 87

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/06/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 19

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 11/04/2014
Date Data Arrived at EDR: 11/07/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 10

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal registered storage tank lists

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 12/11/2014
Date Data Arrived at EDR: 12/12/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 26

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521
Last EDR Contact: 12/05/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Quarterly

AST: Aboveground Tank List
Aboveground storage tank locations.

Date of Government Version: 12/11/2014
Date Data Arrived at EDR: 12/12/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 26

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521
Last EDR Contact: 12/05/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/05/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 12

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/06/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 8

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Semi-Annually

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 11/04/2014
Date Data Arrived at EDR: 11/07/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 10

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/13/2014
Date Data Arrived at EDR: 11/18/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 83

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 11/14/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 87

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 271

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Environmental Real Covenants List
Senate Bill 01-145 gave authority to the Colorado Department of Public Health and Environment to approve requests to restrict the future use of a property using an enforceable agreement called an environmental covenant. When a contaminated site is not cleaned up completely, land use restrictions may be used to ensure that the selected cleanup remedy is adequately protective of human health and the environment.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 02/04/2015
Date Made Active in Reports: 02/12/2015
Number of Days to Update: 8

Source: Department of Public Health & Environment
Telephone: 303-692-3331
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/31/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup & Redevelopment Act Application Tracking Report
The Voluntary Cleanup and Redevelopment Act is intended to permit and encourage voluntary cleanups by providing a method to determine clean-up responsibilities in planning the reuse of property. The VCRA was intended for sites which were not covered by existing regulatory programs.

Date of Government Version: 08/27/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/20/2014
Number of Days to Update: 36

Source: Department of Public Health and Environmental
Telephone: 303-692-3331
Last EDR Contact: 01/16/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/22/2014
Date Data Arrived at EDR: 12/22/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 38

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HISTORICAL LANDFILL: Historical Landfill List
Abandoned/Inactive Landfills.

Date of Government Version: 01/31/1993
Date Data Arrived at EDR: 04/24/1994
Date Made Active in Reports: 05/30/1994
Number of Days to Update: 36

Source: Department of Public Health & Environment
Telephone: 303-692-3300
Last EDR Contact: 09/05/1996
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Registered Recyclers Listing
A listing of registered recycler locations in the state of Colorado.

Date of Government Version: 12/15/2014
Date Data Arrived at EDR: 12/18/2014
Date Made Active in Reports: 01/08/2015
Number of Days to Update: 21

Source: Department of Public Health & Environment
Telephone: 303-692-3337
Last EDR Contact: 12/11/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 12/01/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 70

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/25/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CDL: Meth Lab Locations
Meth lab locations that were reported to the Department of Public Health & Environment.

Date of Government Version: 01/04/2015
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 34

Source: Department of Public Health and Environment
Telephone: 303-692-3023
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 12/01/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 70

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/25/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/30/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/30/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

CO ERNS: Spills Database
State reported spills.

Date of Government Version: 01/04/2015
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 34

Source: Department of Public Health and Environmental
Telephone: 303-692-2000
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch
Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/06/2013
Number of Days to Update: 34

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/03/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/24/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/24/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/27/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 12/30/2014
Date Data Arrived at EDR: 12/31/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/30/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/31/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 44

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 01/29/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/31/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/09/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/16/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 12/29/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 21

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/04/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/07/2014
Date Data Arrived at EDR: 10/08/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 02/27/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/16/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: EPA
Telephone: (303) 312-6312
Last EDR Contact: 02/27/2015
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/24/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Biennially

METHANE SITE: Methane Site Investigations - Jefferson County 1980

The objectives of the study are to define as closely as possible the boundaries of methane producing solid waste landfills.

Date of Government Version: 12/31/1980
Date Data Arrived at EDR: 02/13/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 50

Source: Jefferson County Health Department
Telephone: 303-239-7175
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

METHANE INVESTIGATION: Methane Gas & Swamp Findings

The primary objective of this study was to assess methane gas related hazards at selected landfill sites in Colorado. These sites were selected by the Colorado Department of Health following evaluation of responses received from County and Municipal agencies about completed and existing landfills within their jurisdiction.

Date of Government Version: 03/15/1979
Date Data Arrived at EDR: 02/13/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 50

Source: Department of Health
Telephone: 303-640-3335
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DRYCLEANERS: Drycleaner Facilities

A listing of drycleaning facilities.

Date of Government Version: 12/08/2014
Date Data Arrived at EDR: 12/08/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 30

Source: Department of Public Health & Environment
Telephone: 303-692-3213
Last EDR Contact: 12/05/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

NPDES: Permitted Facility Listing

A listing of permitted facilities from the Water Quality Control Division.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/02/2015
Date Data Arrived at EDR: 02/03/2015
Date Made Active in Reports: 02/11/2015
Number of Days to Update: 8

Source: Department of Public Health & Environment
Telephone: 303-692-3611
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

AIRS: Permitted Facility & Emissions Listing

A listing of Air Pollution Control Division permits and emissions data.

Date of Government Version: 12/08/2014
Date Data Arrived at EDR: 12/08/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 30

Source: Department of Public Health & Environment
Telephone: 303-692-3213
Last EDR Contact: 12/05/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

There were nine uranium mill tailings sites in Colorado designated for cleanup under the federal Uranium Mill Tailings Radiation Control Act. These nine sites, know commonly as UMTRA sites, were remediated jointly by the State of Colorado and the U.S. Department of Energy during the late 1980's and early 1990's. Mill tailings were removed from 8 of the mill sites and relocated in engineered disposal cells. A disposal cell is designed to encapsulate the material, reduce radon emanation, and prevent the movement of water through the material. At one site, Maybell, CO, the tailings were stabilized in-place at the mill site. After remediation of the tailings was completed, the State and DOE began to investigate the residual impacts to groundwater at the mill sites. The groundwater phase of the UMTRA program is on-going.

Date of Government Version: 11/23/2004
Date Data Arrived at EDR: 03/21/2007
Date Made Active in Reports: 05/02/2007
Number of Days to Update: 42

Source: Department of Public Health & Environment
Telephone: 970-248-7164
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

ASBESTOS: Asbestos Abatement & Demolition Projects

Asbestos abatement and demolition projects by the contractor.

Date of Government Version: 11/11/2014
Date Data Arrived at EDR: 11/18/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 50

Source: Department of Public Health & Environment
Telephone: 303-692-3100
Last EDR Contact: 02/26/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Semi-Annually

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/18/2015
Next Scheduled EDR Contact: 06/01/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/30/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/22/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 18

Source: Department of Public Health & Environment
Telephone: 303-392-3350
Last EDR Contact: 01/19/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information
All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 11/19/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/16/2015
Next Scheduled EDR Contact: 06/01/2015
Data Release Frequency: Quarterly

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/13/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

MINES: Permitted Mines Listing
This dataset represents permitted mines in the State of Colorado

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 12/26/2012
Date Made Active in Reports: 02/01/2013
Number of Days to Update: 37

Source: Division of Reclamation Mining and safety
Telephone: 303-866-3567
Last EDR Contact: 12/26/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 02/06/2015
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 02/06/2015
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

2020 COR ACTION: 2020 Corrective Action Program List
The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/13/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/22/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 18

Source: Department of Public Health & Environment
Telephone: 303-692-3350
Last EDR Contact: 01/19/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: N/A

EPA WATCH LIST: EPA WATCH LIST
EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Public Health & Environment in Colorado.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/15/2014
Number of Days to Update: 198

Source: Department of Public Health & Environment
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Labor and Employment, Oil Inspection Section in Colorado.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 185

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ADAMS COUNTY:

Summary Report on Methane Gas Hazards and Surveys Conducted on Domestic and Demolition Landfills in Adams County

As of May 8, 1978, all known landfills or dumping sites in the Adams County area have been surveyed.

Date of Government Version: 05/08/1978
Date Data Arrived at EDR: 02/16/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 47

Source: Tri-County Health Department
Telephone: 303-761-1340
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

ARAPAHOE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

A Survey of Landfills in Arapahoe County

A survey of Arapahoe County was conducted from August through November, 1977, of all open and closed landfills and dumpsites in the county. Each of the sites found was classified as domestic or demolition.

Date of Government Version: 12/31/1978
Date Data Arrived at EDR: 02/16/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 47

Source: Tri-County Health Department
Telephone: 303-761-1340
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

BOULDER COUNTY:

Old Landfill Sites

Landfill sites in Boulder county.

Date of Government Version: 05/01/1986
Date Data Arrived at EDR: 11/14/1995
Date Made Active in Reports: 12/07/1995
Number of Days to Update: 23

Source: Boulder County Health Department
Telephone: 303-441-1182
Last EDR Contact: 01/30/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DENVER COUNTY:

Landfills in Denver County

Landfill sites in the city and county of Denver.

Date of Government Version: 02/13/2014
Date Data Arrived at EDR: 05/16/2014
Date Made Active in Reports: 06/13/2014
Number of Days to Update: 28

Source: City and County of Denver
Telephone: 303-436-7300
Last EDR Contact: 12/24/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: No Update Planned

Investigation of Methane Gas Hazards

The purpose of this study was to assess the actual and potential generation, migration, explosive and related problem associated with specified old landfills, and to identify existing and potential problems, suggested strategies to prevent, abate, and control such problems and recommend investigative and monitoring functions as may be deemed necessary. Eight sites determined to be priorities due to population density and potential hazards to population and property were selected by the Colorado Department of Health.

Date of Government Version: 01/01/1981
Date Data Arrived at EDR: 01/29/2013
Date Made Active in Reports: 03/08/2013
Number of Days to Update: 38

Source: City and County of Denver Department of Environmental Health
Telephone: 720-865-5522
Last EDR Contact: 01/15/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DOUGLAS COUNTY:

Douglas County Landfill Key

Landfill sites in Douglas county.

Date of Government Version: 06/12/1991
Date Data Arrived at EDR: 02/16/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 47

Source: Tri-County Health Department
Telephone: 303-761-1340
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

PUEBLO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Designated Disposal & Landfill Sites
Only inert materials. Asphalt, cement, dirt & rock unless otherwise specified. These sites are no longer active.

Date of Government Version: 04/30/1990
Date Data Arrived at EDR: 11/16/1995
Date Made Active in Reports: 12/07/1995
Number of Days to Update: 21

Source: Pueblo City-County Health Department
Telephone: 719-583-4300
Last EDR Contact: 11/13/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

TRI COUNTY:

Tri-County Area Solid Waste Facilities List (Adams, Arapahoe and Douglas Counties)
Closed Domestic Landfills in Adams County, Closed Domestic Landfills in Arapahoe County, Closed Demolition Landfills in Arapahoe County, Closed Domestic Landfills in Douglas County.

Date of Government Version: 10/15/1983
Date Data Arrived at EDR: 02/16/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 47

Source: Tri-County Health Department
Telephone: 303-761-1340
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

WELD COUNTY:

Solid Waste Facilities in Weld County
Solid Waste Facilities in Weld County.

Date of Government Version: 12/05/2014
Date Data Arrived at EDR: 12/12/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 26

Source: Weld County Department of Public Health
Telephone: 970-304-6415
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/17/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2015
Date Data Arrived at EDR: 02/04/2015
Date Made Active in Reports: 02/27/2015
Number of Days to Update: 23

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/04/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/21/2014
Date Made Active in Reports: 08/25/2014
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/19/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/20/2014
Date Made Active in Reports: 08/07/2014
Number of Days to Update: 48

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Daycare Listing
Source: Department of Human Services
Telephone: 303-866-5958

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Riparian Vegetation Data
Source: Division of Wildlife
Telephone: 970-416-3360

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

PALO PARK
4525 PALO PARKWAY
BOULDER, CO 80301

TARGET PROPERTY COORDINATES

Latitude (North):	40.0442 - 40° 2' 39.12''
Longitude (West):	105.2496 - 105° 14' 58.56''
Universal Tranverse Mercator:	Zone 13
UTM X (Meters):	478707.4
UTM Y (Meters):	4432482.5
Elevation:	5317 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	40105-A2 NIWOT, CO
Most Recent Revision:	1979
West Map:	40105-A3 BOULDER, CO
Most Recent Revision:	1979

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

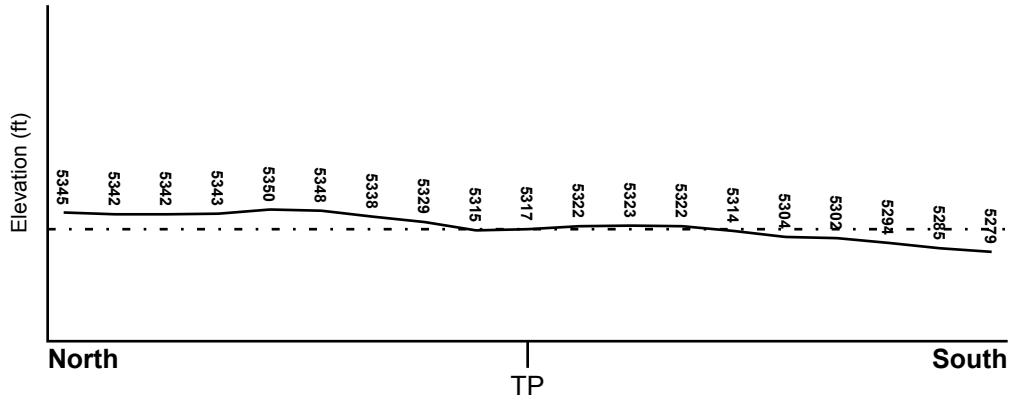
TOPOGRAPHIC INFORMATION

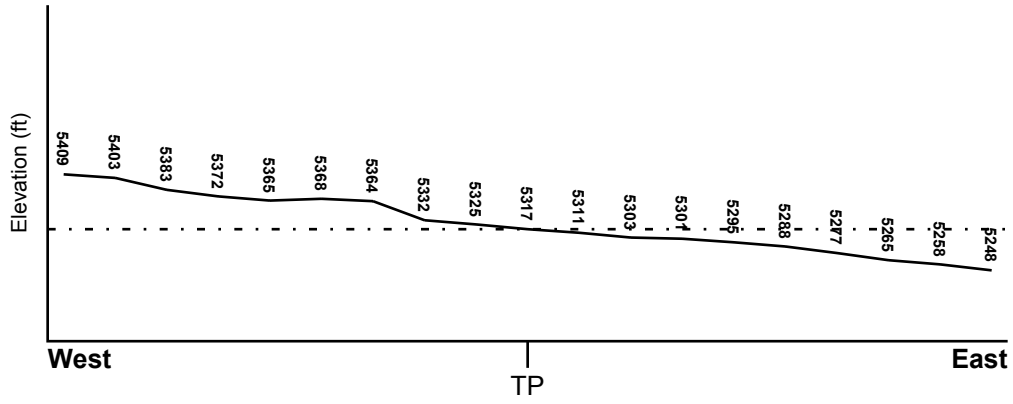
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ESE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 5317 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
BOULDER, CO	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 08013C0415F - FEMA Q3 Flood data

Additional Panels in search area: 08013C0395F - FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
S119	1/2 - 1 Mile SW	SW
185	1/2 - 1 Mile SSW	SE

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

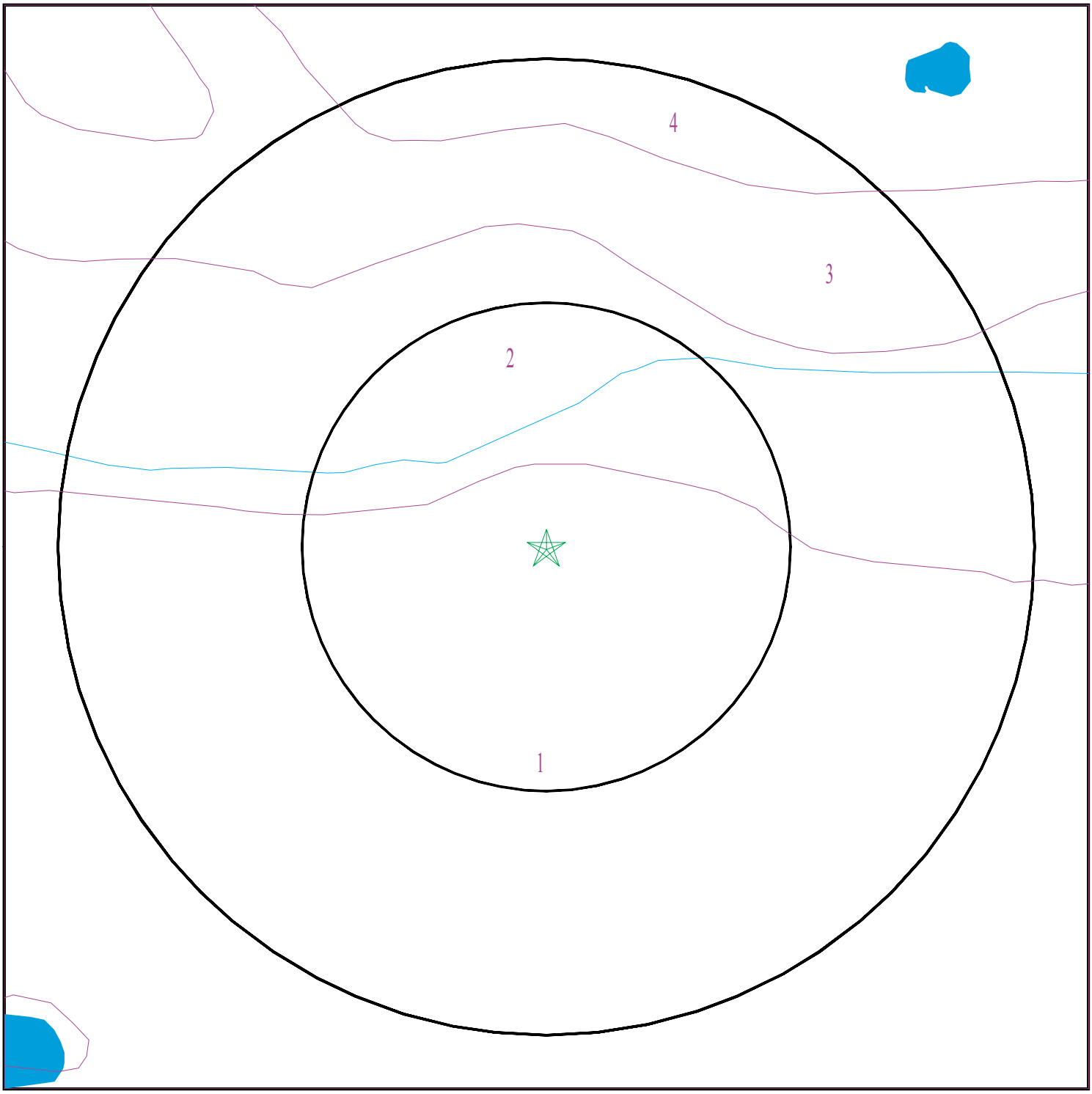
Era:	Mesozoic
System:	Cretaceous
Series:	Austin and Eagle Ford Groups
Code:	uK2 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4221742.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Palo Park	CLIENT:	Farmer Environmental Group
ADDRESS:	4525 Palo Parkway Boulder CO 80301	CONTACT:	Jennifer Day
LAT/LONG:	40.0442 / 105.2496	INQUIRY #:	4221742.2s
		DATE:	March 02, 2015 4:36 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Nederland

Soil Surface Texture: very cobbly sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	very cobbly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 42.34 Min: 4.23	Max: 7.8 Min: 6.1
2	7 inches	20 inches	very cobbly sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14.11 Min: 1.41	Max: 7.3 Min: 6.1
3	20 inches	59 inches	very cobbly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 42.34 Min: 4.23	Max: 7.8 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: Calkins

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 76 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 4.23	Max: 7.3 Min: 6.6
2	14 inches	59 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 7.8 Min: 6.6

Soil Map ID: 3

Soil Component Name: Valmont

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 7.3 Min: 6.6
2	7 inches	24 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.41 Min: 0.42	Max: 8.4 Min: 6.6
3	24 inches	59 inches	very gravelly loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9

Soil Map ID: 4

Soil Component Name: Valmont

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 7.3 Min: 6.6
2	9 inches	29 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.41 Min: 0.42	Max: 8.4 Min: 6.6
3	29 inches	59 inches	very gravelly loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
E31	USGS40000216606	1/4 - 1/2 Mile NW
E32	USGS40000216605	1/4 - 1/2 Mile NW
K67	USGS40000216687	1/2 - 1 Mile NE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
K68	USGS40000216688	1/2 - 1 Mile NE
W120	USGS40000216437	1/2 - 1 Mile WSW
W121	USGS40000216438	1/2 - 1 Mile WSW
AC156	USGS40000216774	1/2 - 1 Mile NNE
193	USGS40000216316	1/2 - 1 Mile SE
AP197	USGS40000216699	1/2 - 1 Mile ENE
AP198	USGS40000216700	1/2 - 1 Mile ENE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CO5000000375254	0 - 1/8 Mile North
2	CO5000000374959	0 - 1/8 Mile WSW
3	CO5000000374673	1/8 - 1/4 Mile South
4	CO5000000374973	1/8 - 1/4 Mile East
5	CO5000000375736	1/8 - 1/4 Mile NNW
A6	CO5000000374864	1/8 - 1/4 Mile West
A7	CO5000000374863	1/8 - 1/4 Mile West
A8	CO5000000374860	1/8 - 1/4 Mile West
A9	CO5000000374859	1/8 - 1/4 Mile West
A10	CO5000000374862	1/8 - 1/4 Mile West
A11	CO5000000374861	1/8 - 1/4 Mile West
B12	CO5000000374598	1/4 - 1/2 Mile SE
B13	CO5000000374599	1/4 - 1/2 Mile SE
14	CO5000000374935	1/4 - 1/2 Mile West
C15	CO5000000374196	1/4 - 1/2 Mile SW
C16	CO5000000374197	1/4 - 1/2 Mile SW
C17	CO5000000374195	1/4 - 1/2 Mile SW
C18	CO5000000374193	1/4 - 1/2 Mile SW
C19	CO5000000374194	1/4 - 1/2 Mile SW
C20	CO5000000374198	1/4 - 1/2 Mile SW
C21	CO5000000374202	1/4 - 1/2 Mile SW
C22	CO5000000374203	1/4 - 1/2 Mile SW
C23	CO5000000374201	1/4 - 1/2 Mile SW
C24	CO5000000374199	1/4 - 1/2 Mile SW
C25	CO5000000374200	1/4 - 1/2 Mile SW
26	CO5000000374359	1/4 - 1/2 Mile SW
27	CO5000000373931	1/4 - 1/2 Mile SSW
D28	CO5000000376448	1/4 - 1/2 Mile North
D29	CO5000000376449	1/4 - 1/2 Mile North
D30	CO5000000376450	1/4 - 1/2 Mile North

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
33	CO5000000376421	1/4 - 1/2 Mile NNE
E34	CO5000000376100	1/2 - 1 Mile NW
F35	CO5000000375087	1/2 - 1 Mile West
G36	CO5000000373625	1/2 - 1 Mile South
G37	CO5000000373626	1/2 - 1 Mile South
G38	CO5000000373623	1/2 - 1 Mile South
G39	CO5000000373624	1/2 - 1 Mile South
G40	CO5000000373627	1/2 - 1 Mile South
G41	CO5000000373630	1/2 - 1 Mile South
G42	CO5000000373631	1/2 - 1 Mile South
G43	CO5000000373628	1/2 - 1 Mile South
G44	CO5000000373629	1/2 - 1 Mile South
H45	CO5000000373919	1/2 - 1 Mile SE
H46	CO5000000373920	1/2 - 1 Mile SE
47	CO5000000375182	1/2 - 1 Mile East
I48	CO5000000373653	1/2 - 1 Mile SSE
I49	CO5000000373652	1/2 - 1 Mile SSE
I50	CO5000000373655	1/2 - 1 Mile SSE
I51	CO5000000373654	1/2 - 1 Mile SSE
52	CO5000000376138	1/2 - 1 Mile NW
J53	CO5000000376266	1/2 - 1 Mile NW
J54	CO5000000376267	1/2 - 1 Mile NW
55	CO5000000373875	1/2 - 1 Mile SW
J56	CO5000000376388	1/2 - 1 Mile NW
J57	CO5000000376387	1/2 - 1 Mile NW
J58	CO5000000376386	1/2 - 1 Mile NW
J59	CO5000000376391	1/2 - 1 Mile NW
J60	CO5000000376390	1/2 - 1 Mile NW
J61	CO5000000376389	1/2 - 1 Mile NW
I62	CO5000000373523	1/2 - 1 Mile SSE
F63	CO5000000374925	1/2 - 1 Mile West
F64	CO5000000374924	1/2 - 1 Mile West
F65	CO5000000374927	1/2 - 1 Mile West
F66	CO5000000374926	1/2 - 1 Mile West
L69	CO5000000373735	1/2 - 1 Mile SE
M70	CO5000000373955	1/2 - 1 Mile SW
71	CO5000000376607	1/2 - 1 Mile NW
N72	CO5000000375678	1/2 - 1 Mile WNW
N73	CO5000000375680	1/2 - 1 Mile WNW
N74	CO5000000375679	1/2 - 1 Mile WNW
N75	CO5000000375682	1/2 - 1 Mile WNW
N76	CO5000000375681	1/2 - 1 Mile WNW
O77	CO5000000373613	1/2 - 1 Mile SSW
O78	CO5000000373614	1/2 - 1 Mile SSW
M79	CO5000000373936	1/2 - 1 Mile SW
M80	CO5000000373917	1/2 - 1 Mile SW
M81	CO5000000373946	1/2 - 1 Mile SW
82	CO5000000376525	1/2 - 1 Mile NW
P83	CO5000000375007	1/2 - 1 Mile West
Q84	CO5000000374351	1/2 - 1 Mile WSW
Q85	CO5000000374350	1/2 - 1 Mile WSW
Q86	CO5000000374353	1/2 - 1 Mile WSW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
Q87	CO5000000374352	1/2 - 1 Mile WSW
P88	CO5000000375192	1/2 - 1 Mile West
89	CO5000000373346	1/2 - 1 Mile South
M90	CO5000000373895	1/2 - 1 Mile SW
Q91	CO5000000374444	1/2 - 1 Mile WSW
M92	CO5000000373929	1/2 - 1 Mile SW
L93	CO5000000373661	1/2 - 1 Mile SE
L94	CO5000000373662	1/2 - 1 Mile SE
L95	CO5000000373663	1/2 - 1 Mile SE
M96	CO5000000373894	1/2 - 1 Mile SW
M97	CO5000000373813	1/2 - 1 Mile SW
M98	CO5000000373867	1/2 - 1 Mile SW
M99	CO5000000373868	1/2 - 1 Mile SW
M100	CO5000000373915	1/2 - 1 Mile SW
R101	CO5000000373780	1/2 - 1 Mile SW
102	CO5000000376811	1/2 - 1 Mile NNE
103	CO5000000375750	1/2 - 1 Mile ENE
N104	CO5000000375922	1/2 - 1 Mile WNW
S105	CO5000000373553	1/2 - 1 Mile SW
R106	CO5000000373586	1/2 - 1 Mile SW
T107	CO5000000373910	1/2 - 1 Mile SW
U108	CO5000000376820	1/2 - 1 Mile NNW
U109	CO5000000376821	1/2 - 1 Mile NNW
T110	CO5000000373908	1/2 - 1 Mile SW
111	CO5000000377160	1/2 - 1 Mile North
R112	CO5000000373585	1/2 - 1 Mile SW
113	CO5000000374916	1/2 - 1 Mile West
114	CO5000000377168	1/2 - 1 Mile NNE
T115	CO5000000373864	1/2 - 1 Mile SW
V116	CO5000000376718	1/2 - 1 Mile NW
V117	CO5000000376719	1/2 - 1 Mile NW
V118	CO5000000376720	1/2 - 1 Mile NW
X122	CO5000000376380	1/2 - 1 Mile NW
X123	CO5000000376381	1/2 - 1 Mile NW
124	CO5000000375383	1/2 - 1 Mile West
Y125	CO5000000373020	1/2 - 1 Mile South
Y126	CO5000000373021	1/2 - 1 Mile South
Y127	CO5000000373022	1/2 - 1 Mile South
Z128	CO5000000377152	1/2 - 1 Mile NNW
129	CO5000000375176	1/2 - 1 Mile East
Z130	CO5000000377153	1/2 - 1 Mile NNW
AA131	CO5000000373598	1/2 - 1 Mile SW
AA132	CO5000000373599	1/2 - 1 Mile SW
AA133	CO5000000373596	1/2 - 1 Mile SW
AA134	CO5000000373597	1/2 - 1 Mile SW
AA135	CO5000000373602	1/2 - 1 Mile SW
AA136	CO5000000373603	1/2 - 1 Mile SW
AA137	CO5000000373600	1/2 - 1 Mile SW
AA138	CO5000000373601	1/2 - 1 Mile SW
AA139	CO5000000373595	1/2 - 1 Mile SW
140	CO5000000373033	1/2 - 1 Mile SSE
AB141	CO5000000375982	1/2 - 1 Mile WNW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
142	CO5000000376433	1/2 - 1 Mile NE
143	CO5000000373337	1/2 - 1 Mile SW
AB144	CO5000000376031	1/2 - 1 Mile WNW
145	CO5000000377313	1/2 - 1 Mile NNE
AC146	CO5000000377173	1/2 - 1 Mile NNE
AC147	CO5000000377174	1/2 - 1 Mile NNE
AC148	CO5000000377028	1/2 - 1 Mile NE
AD149	CO5000000377107	1/2 - 1 Mile NNW
AD150	CO5000000377109	1/2 - 1 Mile NNW
AE151	CO5000000374918	1/2 - 1 Mile West
AE152	CO5000000374917	1/2 - 1 Mile West
AE153	CO5000000374920	1/2 - 1 Mile West
AE154	CO5000000374919	1/2 - 1 Mile West
AF155	CO5000000376271	1/2 - 1 Mile WNW
AG157	CO5000000373013	1/2 - 1 Mile SSW
AG158	CO5000000373012	1/2 - 1 Mile SSW
AG159	CO5000000373014	1/2 - 1 Mile SSW
AG160	CO5000000373016	1/2 - 1 Mile SSW
AG161	CO5000000373015	1/2 - 1 Mile SSW
AG162	CO5000000373011	1/2 - 1 Mile SSW
AH163	CO5000000377441	1/2 - 1 Mile NNE
AH164	CO5000000377440	1/2 - 1 Mile NNE
AH165	CO5000000377443	1/2 - 1 Mile NNE
AH166	CO5000000377442	1/2 - 1 Mile NNE
AH167	CO5000000377444	1/2 - 1 Mile NNE
AF168	CO5000000376282	1/2 - 1 Mile WNW
AI169	CO5000000375672	1/2 - 1 Mile WNW
AI170	CO5000000375673	1/2 - 1 Mile WNW
AI171	CO5000000375674	1/2 - 1 Mile WNW
AI172	CO5000000375675	1/2 - 1 Mile WNW
AJ173	CO5000000374001	1/2 - 1 Mile ESE
AJ174	CO5000000373998	1/2 - 1 Mile ESE
AJ175	CO5000000373997	1/2 - 1 Mile ESE
AJ176	CO5000000374000	1/2 - 1 Mile ESE
AJ177	CO5000000373999	1/2 - 1 Mile ESE
AK178	CO5000000375382	1/2 - 1 Mile West
179	CO5000000373848	1/2 - 1 Mile WSW
180	CO5000000373042	1/2 - 1 Mile SSE
AD181	CO5000000377311	1/2 - 1 Mile NNW
AD182	CO5000000377315	1/2 - 1 Mile NNW
AL183	CO5000000374340	1/2 - 1 Mile WSW
AL184	CO5000000374341	1/2 - 1 Mile WSW
AF186	CO5000000376292	1/2 - 1 Mile WNW
AK187	CO5000000375343	1/2 - 1 Mile West
188	CO5000000375178	1/2 - 1 Mile East
AM189	CO5000000377579	1/2 - 1 Mile North
AM190	CO5000000377580	1/2 - 1 Mile North
AN191	CO5000000377385	1/2 - 1 Mile NNW
AN192	CO5000000377386	1/2 - 1 Mile NNW
AO194	CO5000000377148	1/2 - 1 Mile NW
AO195	CO5000000377149	1/2 - 1 Mile NW
196	CO5000000373959	1/2 - 1 Mile WSW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

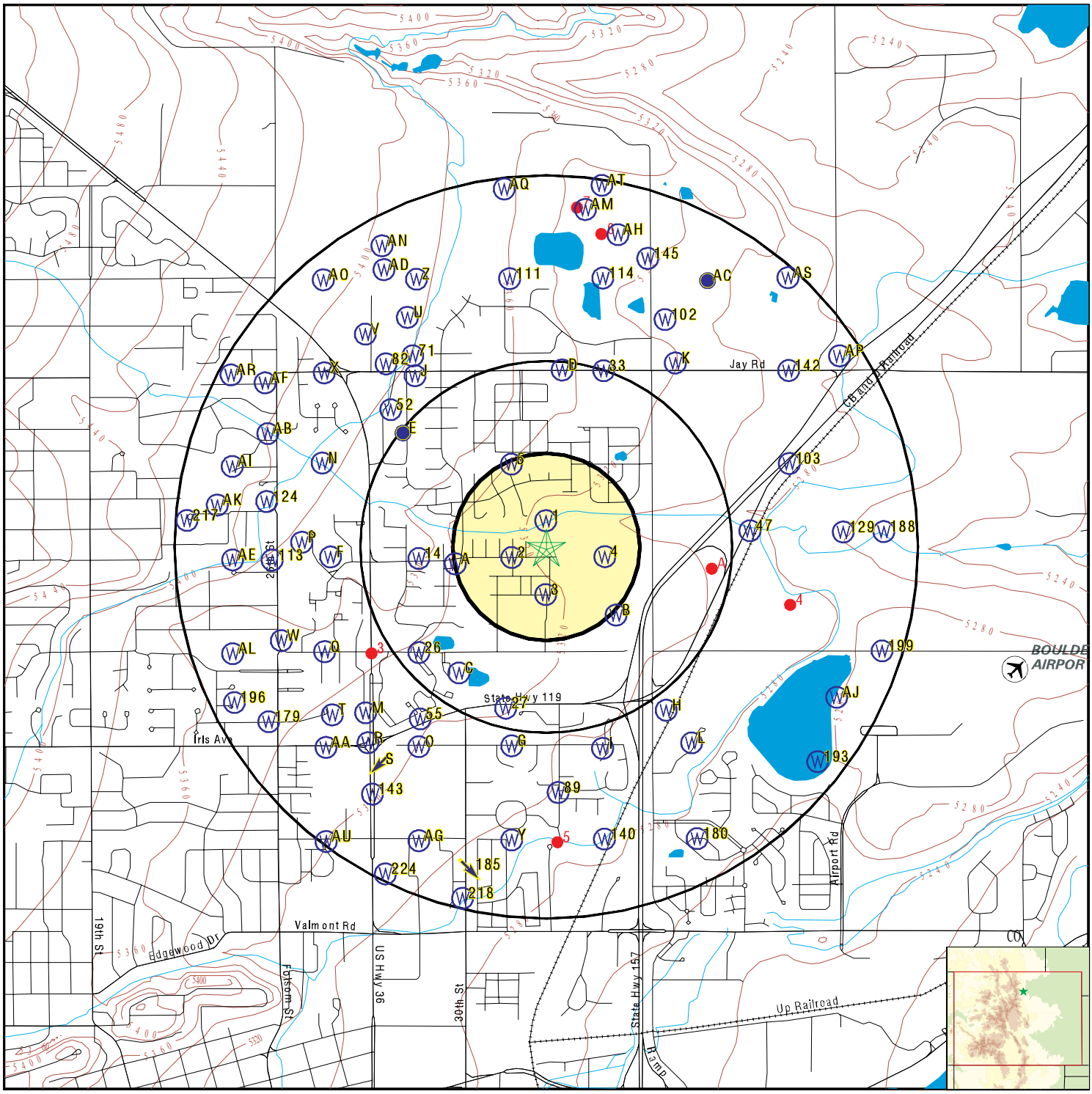
MAP ID	WELL ID	LOCATION FROM TP
199	CO5000000374383	1/2 - 1 Mile ESE
AQ200	CO5000000377663	1/2 - 1 Mile North
AQ201	CO5000000377664	1/2 - 1 Mile North
AR202	CO5000000376234	1/2 - 1 Mile WNW
AQ203	CO5000000377675	1/2 - 1 Mile North
AR204	CO5000000376368	1/2 - 1 Mile WNW
AR205	CO5000000376369	1/2 - 1 Mile WNW
AR206	CO5000000376367	1/2 - 1 Mile WNW
AR207	CO5000000376365	1/2 - 1 Mile WNW
AR208	CO5000000376366	1/2 - 1 Mile WNW
AR209	CO5000000376373	1/2 - 1 Mile WNW
AR210	CO5000000376374	1/2 - 1 Mile WNW
AR211	CO5000000376372	1/2 - 1 Mile WNW
AR212	CO5000000376370	1/2 - 1 Mile WNW
AR213	CO5000000376371	1/2 - 1 Mile WNW
AR214	CO5000000376375	1/2 - 1 Mile WNW
AR215	CO5000000376376	1/2 - 1 Mile WNW
AR216	CO5000000376377	1/2 - 1 Mile WNW
217	CO5000000375258	1/2 - 1 Mile West
218	CO5000000372600	1/2 - 1 Mile SSW
AS219	CO5000000377175	1/2 - 1 Mile NE
AS220	CO5000000377176	1/2 - 1 Mile NE
AQ221	CO5000000377766	1/2 - 1 Mile North
AQ222	CO5000000377767	1/2 - 1 Mile North
AQ223	CO5000000377768	1/2 - 1 Mile North
224	CO5000000372774	1/2 - 1 Mile SSW
AQ225	CO5000000377764	1/2 - 1 Mile North
AT226	CO5000000377772	1/2 - 1 Mile North
AT227	CO5000000377771	1/2 - 1 Mile North
AT228	CO5000000377774	1/2 - 1 Mile North
AT229	CO5000000377773	1/2 - 1 Mile North
AU230	CO5000000373002	1/2 - 1 Mile SW
AU231	CO5000000373001	1/2 - 1 Mile SW
AU232	CO5000000373003	1/2 - 1 Mile SW
AU233	CO5000000373005	1/2 - 1 Mile SW
AU234	CO5000000373004	1/2 - 1 Mile SW
AU235	CO5000000373000	1/2 - 1 Mile SW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	COOG90000051501	1/4 - 1/2 Mile East
A2	COOG90000051499	1/4 - 1/2 Mile East
3	COOG90000051280	1/2 - 1 Mile WSW
4	COOG90000051414	1/2 - 1 Mile ESE
5	COOG90000050855	1/2 - 1 Mile South
6	COOG90000052241	1/2 - 1 Mile North
7	COOG90000052338	1/2 - 1 Mile North

PHYSICAL SETTING SOURCE MAP - 4221742.2s



County Boundary
Major Roads
Contour Lines
Airports
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location
Oil, gas or related wells

N

SITE NAME: Palo Park	CLIENT: Farmer Environmental Group
ADDRESS: 4525 Palo Parkway Boulder CO 80301	CONTACT: Jennifer Day INQUIRY #: 4221742.2s
LAT/LONG: 40.0442 / 105.2496	DATE: March 02, 2015 4:36 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
1 **North** **0 - 1/8 Mile** **Lower**	**CO WELLS**	**CO5000000375254**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0485242
Permitno:	238489	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Not Reported
Current st:	0	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	150
Coordsns d:	N	Coordsew:	1500
Coordsew d:	E	Utm x:	478706.09375
Utm y:	4432596.1		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	12/07/2001	Date permi:	01/04/2002
Date per00:	01/04/2004	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	KALMIA 10 ACRE PARTNERSHIP
Mailing ad:	5353 MANHATTAN CIR #203		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80303-
Driller li:	LIC	Pump lic:	Not Reported
Date last :	01/04/2002		
Last actio:	Date the permit was issued.		
Site id:	CO5000000375254		

2 **WSW** **0 - 1/8 Mile** **Higher**	**CO WELLS**	**CO5000000374959**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0044400
Permitno:	44400	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478558.5
Utm y:	4432437		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	01/03/2005	Date permi:	01/05/2005
Date per00:	04/03/2005	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	4 WELLS		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	COAST TO COAST DEVELOPMENT
Mailing ad:	C/O SCOTT COX & ASSOCIATES INC 1530 55TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80303-
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	01/12/2005		
Last actio:	Record corrected		
Site id:	CO5000000374959		

3
South
1/8 - 1/4 Mile
Higher

CO WELLS **CO5000000374673**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0485241
Permitno:	238488	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Not Reported
Current st:	0	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	4		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	1200
Coordsns d:	N	Coordsew:	1500
Coordsew d:	E	Utm x:	478704.6875
Utm y:	4432276.1		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	12/07/2001	Date permi:	01/04/2002
Date per00:	01/04/2004	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	KALMIA 10 ACRE PARTNERSHIP
Mailing ad:	5353 MANHATTAN CIR #203		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80303-
Driller li:	LIC	Pump lic:	Not Reported
Date last :	01/04/2002		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374673		

4
East
1/8 - 1/4 Mile
Lower

CO WELLS **CO5000000374973**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009233
Permitno:	13340	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478961.1875

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4432439.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	10/15/1962	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	35
Tperf:	0	Bperf:	0
Pump rate:	3		
Static wat:	17	Full name:	SCHOOL DIST RE 2
Mailing ad:	1440 WALNUT ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/15/1962		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000374973		

5
NNW
1/8 - 1/4 Mile
Higher

CO WELLS **CO5000000375736**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008985
Permitno:	10637	Permitsuf:	R
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SE
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478557.90625
Utm y:	4432841.6		
Loc accura:	Spotted from quarters	Permitted :	1
Use1:	IRRIGATION	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	16
Tperf:	0	Bperf:	0
Pump rate:	520		
Static wat:	8	Full name:	EMERSON EDGAR J
Mailing ad:	RTE 2 BOX 415		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	Not Reported		
Last actio:	Not Reported		
Site id:	CO5000000375736		

A6
West
1/8 - 1/4 Mile
Higher

CO WELLS **CO5000000374864**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0301744F
Permitno:	35662	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Not Reported
Current st:	0	Well name:	MW-6
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NE	Coordsns:	750
Coordsns d:	N	Coordsew:	2500
Coordsew d:	W	Utm x:	478313.59375
Utm y:	4432410.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	06/19/1989	Date permi:	09/18/1989
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	AMOCO OIL
Mailing ad:	4380 S SYRACUSE		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80237

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	LIC	Pump lic:	Not Reported
Date last :	09/18/1989		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374864		

A7
West
1/8 - 1/4 Mile
Higher

CO WELLS **CO5000000374863**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0301744E
Permitno:	35661	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Not Reported
Current st:	0	Well name:	MW-5
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NE	Coordsns:	750
Coordsns d:	N	Coordsew:	2500
Coordsew d:	W	Utm x:	478313.59375
Utm y:	4432410.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	06/19/1989	Date permi:	09/18/1989
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	AMOCO OIL
Mailing ad:	4380 S SYRACUSE		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80237
Driller li:	LIC	Pump lic:	Not Reported
Date last :	09/18/1989		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374863		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
A8 **West** **1/8 - 1/4 Mile** **Higher**	**CO WELLS**	**CO5000000374860**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0301744B
Permitno:	35658	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Not Reported
Current st:	0	Well name:	MW-2
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NE	Coordsns:	750
Coordsns d:	N	Coordsew:	2500
Coordsew d:	W	Utm x:	478313.59375
Utm y:	4432410.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	06/19/1989	Date permi:	09/18/1989
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	AMOCO OIL
Mailing ad:	4380 S SYRACUSE		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80237
Driller li:	LIC	Pump lic:	Not Reported
Date last :	09/18/1989		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374860		

A9 **West** **1/8 - 1/4 Mile** **Higher**	**CO WELLS**	**CO5000000374859**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0301744A
Permitno:	35657	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Not Reported
Current st:	0	Well name:	MW-1
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NE	Coordsns:	750
Coordsns d:	N	Coordsew:	2500
Coordsew d:	W	Utm x:	478313.59375
Utm y:	4432410.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	06/19/1989	Date permi:	09/18/1989
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	AMOCO OIL
Mailing ad:	4380 S SYRACUSE		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80237
Driller li:	LIC	Pump lic:	Not Reported
Date last :	09/18/1989		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374859		

A10
West
1/8 - 1/4 Mile
Higher

CO WELLS **CO5000000374862**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0301744D
Permitno:	35660	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Not Reported
Current st:	0	Well name:	MW-4
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NE	Coordsns:	750
Coordsns d:	N	Coordsew:	2500
Coordsew d:	W	Utm x:	478313.59375
Utm y:	4432410.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	06/19/1989	Date permi:	09/18/1989
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	AMOCO OIL
Mailing ad:	4380 S SYRACUSE		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80237
Driller li:	LIC	Pump lic:	Not Reported
Date last :	09/18/1989		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374862		

A11
West
1/8 - 1/4 Mile
Higher

CO WELLS **CO5000000374861**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0301744C
Permitno:	35659	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Not Reported
Current st:	0	Well name:	MW-3
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NE	Coordsns:	750
Coordsns d:	N	Coordsew:	2500
Coordsew d:	W	Utm x:	478313.59375

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4432410.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	06/19/1989	Date permi:	09/18/1989
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	AMOCO OIL
Mailing ad:	4380 S SYRACUSE		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80237
Driller li:	LIC	Pump lic:	Not Reported
Date last :	09/18/1989		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374861		

B12
SE
1/4 - 1/2 Mile
Lower

CO WELLS **CO5000000374598**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0107192
Permitno:	107836	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	1500
Coordsns d:	N	Coordsew:	500
Coordsew d:	E	Utm x:	479009.09375
Utm y:	4432186.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	05/25/1979	Date permi:	06/25/1979

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BELVIN PARMALEE
Mailing ad:	7 BENCHMARK		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	LIC	Pump lic:	Not Reported
Date last :	04/06/1992		
Last actio:	Record corrected		
Site id:	CO5000000374598		

B13
SE
1/4 - 1/2 Mile
Lower

CO WELLS **CO5000000374599**

Div:	1	Wd:	6
Wdid:	605195	Receipt:	0245727
Permitno:	27751	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	CARDEN #1
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	1500
Coordsns d:	N	Coordsew:	500
Coordsew d:	E	Utm x:	479009.09375
Utm y:	4432186.6		
Loc accura:	Spotted from section lines	Permitted :	3
Use1:	COMMERCIAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	05/22/1984	Date permi:	10/09/1984
Date per00:	10/09/1986	Date well :	10/22/1984
Date 1st b:	Not Reported	Date pump :	10/25/1984
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	205
Tperf:	15	Bperf:	205
Pump rate:	20		
Static wat:	7	Full name:	BOULDER JEWISH COMMUNITY FOUNDATION
Mailing ad:	PO BOX 18983		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80308-

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	716	Pump lic:	Not Reported
Date last :	09/03/1999		
Last actio:	Change of Ownership		
Site id:	CO5000000374599		

14
West
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000374935**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008358
Permitno:	2595	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478155.6875
Utm y:	4432434.1		
Loc accura:	Spotted from quarters	Permitted :	9
Use1:	STOCK	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/26/1958	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	40
Tperf:	0	Bperf:	0
Pump rate:	3		
Static wat:	14	Full name:	CLEMMENS QUAY
Mailing ad:	N 28TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	12/26/1958		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000374935		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
C15 **SW** **1/4 - 1/2 Mile** **Higher**	**CO WELLS**	**CO5000000374196**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242D
Permitno:	36784	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	MW-10
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875
Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WESTERN GEOLOGIC RESOURCES
Mailing ad:	3760 S HIGHLAND DR # 500		
Mailing ci:	SALT LAKE CITY		
Mailing st:	UT	Mailing zi:	84106
Driller li:	LIC	Pump lic:	Not Reported
Date last :	05/15/1990		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374196		

C16 **SW** **1/4 - 1/2 Mile** **Higher**	**CO WELLS**	**CO5000000374197**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242E
Permitno:	36785	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	MW-11
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875
Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WESTERN GEOLOGIC RESOURCES
Mailing ad:	3760 S HIGHLAND DR # 500		
Mailing ci:	SALT LAKE CITY		
Mailing st:	UT	Mailing zi:	84106
Driller li:	LIC	Pump lic:	Not Reported
Date last :	05/15/1990		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374197		

C17
SW
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000374195**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242C
Permitno:	36783	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-9
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875
Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990
Date per00:	Not Reported	Date well :	07/14/1990
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	14	Bperf:	30
Pump rate:	0		
Static wat:	0	Full name:	CHEVRON USA INC
Mailing ad:	2410 CAMINO RAMON		
Mailing ci:	SAN RAMON		
Mailing st:	CA	Mailing zi:	94583-804
Driller li:	LIC	Pump lic:	Not Reported
Date last :	12/03/1990		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000374195		

C18
SW
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000374193**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242A
Permitno:	36781	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-7
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990
Date per00:	Not Reported	Date well :	07/17/1990
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	29
Tperf:	15	Bperf:	29
Pump rate:	0		
Static wat:	0	Full name:	CHEVRON USA INC
Mailing ad:	2410 CAMINO RAMON		
Mailing ci:	SAN RAMON		
Mailing st:	CA	Mailing zi:	94583-804
Driller li:	LIC	Pump lic:	Not Reported
Date last :	12/03/1990		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000374193		

C19
SW
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000374194**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242B
Permitno:	36782	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-8
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875
Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	07/18/1990
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	14	Bperf:	30
Pump rate:	0		
Static wat:	0	Full name:	CHEVRON USA INC
Mailing ad:	2410 CAMINO RAMON		
Mailing ci:	SAN RAMON		
Mailing st:	CA	Mailing zi:	94583-804
Driller li:	LIC	Pump lic:	Not Reported
Date last :	12/03/1990		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000374194		

C20
SW
1/4 - 1/2 Mile
Higher

CO WELLS CO5000000374198

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242F
Permitno:	36786	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	MW-12
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875
Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WESTERN GEOLOGIC RESOURCES
Mailing ad:	3760 S HIGHLAND DR # 500		
Mailing ci:	SALT LAKE CITY		
Mailing st:	UT	Mailing zi:	84106

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	LIC	Pump lic:	Not Reported
Date last :	05/15/1990		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374198		

C21
SW
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000374202**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242J
Permitno:	36790	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	MW-16
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875
Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WESTERN GEOLOGIC RESOURCES
Mailing ad:	3760 S HIGHLAND DR # 500		
Mailing ci:	SALT LAKE CITY		
Mailing st:	UT	Mailing zi:	84106
Driller li:	LIC	Pump lic:	Not Reported
Date last :	05/15/1990		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374202		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
C22 **SW** **1/4 - 1/2 Mile** **Higher**	**CO WELLS**	**CO5000000374203**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242K
Permitno:	36791	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	MW-17
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875
Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WESTERN GEOLOGIC RESOURCES
Mailing ad:	3760 S HIGHLAND DR # 500		
Mailing ci:	SALT LAKE CITY		
Mailing st:	UT	Mailing zi:	84106
Driller li:	LIC	Pump lic:	Not Reported
Date last :	05/15/1990		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374203		

C23 **SW** **1/4 - 1/2 Mile** **Higher**	**CO WELLS**	**CO5000000374201**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242I
Permitno:	36789	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	MW-15
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875
Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WESTERN GEOLOGIC RESOURCES
Mailing ad:	3760 S HIGHLAND DR # 500		
Mailing ci:	SALT LAKE CITY		
Mailing st:	UT	Mailing zi:	84106
Driller li:	LIC	Pump lic:	Not Reported
Date last :	05/15/1990		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374201		

C24
SW
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000374199**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242G
Permitno:	36787	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	MW-13
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875
Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WESTERN GEOLOGIC RESOURCES
Mailing ad:	3760 S HIGHLAND DR # 500		
Mailing ci:	SALT LAKE CITY		
Mailing st:	UT	Mailing zi:	84106
Driller li:	LIC	Pump lic:	Not Reported
Date last :	05/15/1990		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374199		

C25
SW
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000374200**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0312242H
Permitno:	36788	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	MW-14
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2300
Coordsns d:	N	Coordsew:	2550
Coordsew d:	W	Utm x:	478328.1875

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4431938.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/18/1990	Date permi:	05/15/1990
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WESTERN GEOLOGIC RESOURCES
Mailing ad:	3760 S HIGHLAND DR # 500		
Mailing ci:	SALT LAKE CITY		
Mailing st:	UT	Mailing zi:	84106
Driller li:	LIC	Pump lic:	Not Reported
Date last :	05/15/1990		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374200		

26
SW
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000374359**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0016208
Permitno:	16208	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	MW 7-MW 17
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478154.6875
Utm y:	4432026.6		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	05/09/1990	Date permi:	05/09/1990

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	08/07/1990	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	36781-m-36791-M		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	CHEVRON
Mailing ad:	C/O 3760 S HIGHLAND DR		
Mailing ci:	SALT LAKE CITY		
Mailing st:	UT	Mailing zi:	84106
Driller li:	LIC	Pump lic:	Not Reported
Date last :	02/24/2004		
Last actio:	Record corrected		
Site id:	CO5000000374359		

27
SSW
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000373931**

Div:	1	Wd:	6
Wdid:	605745	Receipt:	9009765
Permitno:	19714	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NW	Coordsns:	2540
Coordsns d:	S	Coordsew:	2065
Coordsew d:	E	Utm x:	478530.3125
Utm y:	4431784.6		
Loc accura:	Spotted from section lines	Permitted :	1
Use1:	IRRIGATION	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/01/1969	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	10		
Static wat:	0	Full name:	REMINGTON POST APTS
Mailing ad:	2400 28TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	12/01/1969		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373931		

D28
North
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000376448**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0376797A
Permitno:	184223	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	1990
Coordsns d:	S	Coordsew:	1250
Coordsew d:	E	Utm x:	478778.6875
Utm y:	4433248.6		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	10/25/1994	Date permi:	12/27/1994
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	1ST USE PRE 1965; 1 AC PCL; 1SF; NO IRR		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	COLCLASURE DELORIS M
Mailing ad:	3218 JAY RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-1714
Driller li:	LR	Pump lic:	Not Reported
Date last :	12/27/1994		
Last actio:	Date the permit was issued.		
Site id:	CO5000000376448		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
D29 **North** **1/4 - 1/2 Mile** **Higher**	**CO WELLS**	**CO5000000376449**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0376797B
Permitno:	184223	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	REPLACES LR
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	3602	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	1990
Coordsns d:	S	Coordsew:	1250
Coordsew d:	E	Utm x:	478778.6875
Utm y:	4433248.6		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	10/25/1994	Date permi:	12/27/1994
Date per00:	12/27/1996	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	11/02/1994
Date wel00:	Not Reported		
Comment :	TRACT 3602; REPL PRE 1965 WELL; 1 AC PCL; 1SF; NO IRR; 94VE472		
Elev:	0	Well depth:	20
Tperf:	0	Bperf:	0
Pump rate:	10		
Static wat:	5	Full name:	COLCLASURE DELORIS M
Mailing ad:	3218 JAY RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-1714
Driller li:	1035	Pump lic:	1035
Date last :	03/28/1995		
Last actio:	Date the pump installation report is received by DWR.		
Site id:	CO5000000376449		

D30 **North** **1/4 - 1/2 Mile** **Higher**	**CO WELLS**	**CO5000000376450**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0376797C
Permitno:	94472	Permitsuf:	VE
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	3602	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	1990
Coordsns d:	S	Coordsew:	1250
Coordsew d:	E	Utm x:	478778.6875
Utm y:	4433248.6		
Loc accura:	Spotted from section lines	Permitted :	9
Use1:	STOCK	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	10/27/1994	Date permi:	10/27/1994
Date per00:	12/27/1994	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Tract/Lot #3602. See permit #184223-A.		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	COLCLASURE DELORIS M
Mailing ad:	3218 JAY RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	1035	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000376450		

E31
NW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000216606**

Org. Identifier:	USGS-CO		
Formal name:	USGS Colorado Water Science Center		
Monloc Identifier:	USGS-400254105152301		
Monloc name:	SB00107017CAC		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	10190005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.0483189
Longitude:	-105.2569339	Sourcemap scale:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	5370.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19640101	Welldepth:	30
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-01	10.00	

E32
NW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000216605**

Org. Identifier:	USGS-CO		
Formal name:	USGS Colorado Water Science Center		
Monloc Identifier:	USGS-400254105152300		
Monloc name:	SB00107017CACD SITE 450		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	10190005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.0483189
Longitude:	-105.2569339	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	minutes
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Alluvium and Terrace Deposits		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

33
NNE
1/4 - 1/2 Mile
Higher

CO WELLS **CO5000000376421**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0044409
Permitno:	44409	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478958.40625
Utm y:	4433245		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	12/30/2004	Date permi:	01/06/2005
Date per00:	03/30/2005	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	4 wells		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	COAST TO COAST DEVELOPMENT
Mailing ad:	C/O SCOTT COX & ASSOCIATES INC 1530 55TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80303-
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	01/06/2005		
Last actio:	Date the permit was issued.		
Site id:	CO5000000376421		

E34
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376100**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0365255
Permitno:	2082	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GOULD	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	12	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	3920
Coordsns d:	N	Coordsew:	1810
Coordsew d:	W	Utm x:	478100.40625
Utm y:	4433051.1		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	02/07/1994	Date permi:	03/07/1994
Date per00:	03/07/1996	Date well :	03/09/1995
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	REPL 9/8/58 WELL;1AC LOT;1SF, ZERO IRR, DOM ANIMALS DRY HOLE		
Elev:	0	Well depth:	100
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	VERPLANCK PHILIP
Mailing ad:	4015 STONE PL		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	889	Pump lic:	Not Reported
Date last :	05/19/1995		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000376100		

F35
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375087**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0912648
Permitno:	87735	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	5		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NW	Coordsns:	500
Coordsns d:	N	Coordsew:	1000
Coordsew d:	W	Utm x:	477856.5

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4432483.5		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	11/17/1976	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WHITTAKER DALE C
Mailing ad:	1215 GRANT		
Mailing ci:	LONGMONT		
Mailing st:	CO	Mailing zi:	80501-
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	06/15/2005		
Last actio:	Record corrected		
Site id:	CO5000000375087		

G36
South
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373625**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0010019
Permitno:	15792	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478555.8125
Utm y:	4431621.6		
Loc accura:	Spotted from quarters	Permitted :	1
Use1:	IRRIGATION	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	07/31/1971	Date permi:	09/03/1971

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	JIM O NEAL INC.
Mailing ad:	3250 O NEAL CIRCLE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/03/1972		
Last actio:	Date permit expires if well not constructed		
Site id:	CO5000000373625		

G37
South
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373626**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009184
Permitno:	12983	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478555.8125
Utm y:	4431621.6		
Loc accura:	Spotted from quarters	Permitted :	1
Use1:	IRRIGATION	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	06/18/1968	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	14
Tperf:	0	Bperf:	0
Pump rate:	80		
Static wat:	4	Full name:	ONEAL JIM INC
Mailing ad:	30TH & ONEAL PKWY		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	06/18/1968		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373626		

G38
South
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373623**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0010017
Permitno:	15790	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478555.8125
Utm y:	4431621.6		
Loc accura:	Spotted from quarters	Permitted :	1
Use1:	IRRIGATION	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	07/31/1971	Date permi:	09/03/1971
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	JIM O NEAL INC.
Mailing ad:	3250 O NEAL CIRCLE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/03/1972		
Last actio:	Date permit expires if well not constructed		
Site id:	CO5000000373623		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
G39 **South** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373624**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0010018
Permitno:	15791	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478555.8125
Utm y:	4431621.6		
Loc accura:	Spotted from quarters	Permitted :	1
Use1:	IRRIGATION	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	07/31/1971	Date permi:	09/03/1971
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	JIM O NEAL INC.
Mailing ad:	3250 O NEAL CIRCLE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/03/1972		
Last actio:	Date permit expires if well not constructed		
Site id:	CO5000000373624		

G40 **South** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373627**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009185
Permitno:	12984	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478555.8125
Utm y:	4431621.6		
Loc accura:	Spotted from quarters	Permitted :	1
Use1:	IRRIGATION	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	06/20/1968	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	14
Tperf:	0	Bperf:	0
Pump rate:	50		
Static wat:	4	Full name:	ONEAL JIM INC
Mailing ad:	30TH & ONEAL PKWY		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	06/20/1968		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373627		

G41
South
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373630**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009384
Permitno:	14862	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478555.8125
Utm y:	4431621.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/22/1963	Date permi:	04/22/1963
Date per00:	Not Reported	Date well :	04/02/1963
Date 1st b:	04/02/1963	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	4444 PEARL ST BOULDER CO		
Elev:	0	Well depth:	31
Tperf:	14	Bperf:	31
Pump rate:	45		
Static wat:	5	Full name:	SCHNEIDER KENNETH C
Mailing ad:	2955 17TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/19/1991		
Last actio:	Record corrected		
Site id:	CO5000000373630		

G42
South
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373631**

Div:	1	Wd:	6
Wdid:	605746	Receipt:	9009204
Permitno:	13128	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478555.8125

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4431621.6		
Loc accura:	Spotted from quarters	Permitted :	1
Use1:	IRRIGATION	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	08/12/1968	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	13
Tperf:	0	Bperf:	0
Pump rate:	100		
Static wat:	5	Full name:	POST REMINGTON
Mailing ad:	Not Reported		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	08/12/1968		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373631		

G43
South
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373628**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009186
Permitno:	12985	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478555.8125
Utm y:	4431621.6		
Loc accura:	Spotted from quarters	Permitted :	1
Use1:	IRRIGATION	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	06/18/1968	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	12
Tperf:	0	Bperf:	0
Pump rate:	50		
Static wat:	4	Full name:	ONEAL JIM INC
Mailing ad:	30TH & ONEAL PKWY		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	06/18/1968		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373628		

G44
South
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373629**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009266
Permitno:	13660	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478555.8125
Utm y:	4431621.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	11/19/1962	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	35
Tperf:	0	Bperf:	0
Pump rate:	5		
Static wat:	6	Full name:	SCHNEIDER KENT
Mailing ad:	2955 17TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	11/19/1962		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373629		

H45
SE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373919**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0918750A
Permitno:	74	Permitsuf:	GX
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2494
Coordsns d:	S	Coordsew:	214
Coordsew d:	W	Utm x:	479225
Utm y:	4431774		
Loc accura:	Spotted from section lines	Permitted :	G
Use1:	GEOTHERMAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	12/14/2009
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	UCAR FACILITY
Mailing ad:	3375 MITCHELL LANE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	GT-89	Pump lic:	Not Reported
Date last :	01/29/2010		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000373919		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
H46 **SE** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373920**

Div:	1	Wd:	6
Wdid:	0	Receipt:	3649744C
Permitno:	101	Permitsuf:	GX
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2494
Coordsns d:	S	Coordsew:	214
Coordsew d:	W	Utm x:	479225
Utm y:	4431774		
Loc accura:	Spotted from section lines	Permitted :	G
Use1:	GEOTHERMAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	05/31/2011
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	400
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	UCAR FACILITY
Mailing ad:	3375 MITCHELL LANE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	GTT-118	Pump lic:	Not Reported
Date last :	09/06/2011		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000373920		

47 **East** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000375182**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0329978A
Permitno:	162408	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Canceled
Current st:	8	Well name:	EAST WELL
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	300
Coordsns d:	N	Coordsew:	1400
Coordsew d:	W	Utm x:	479589.8125
Utm y:	4432550.1		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	09/09/1991	Date permi:	11/20/1991
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/31/1910	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	4
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	0	Full name:	HIBBS JOHN D & RUTHANNE J
Mailing ad:	2888 BLUFF ST STE 515		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	LR	Pump lic:	Not Reported
Date last :	06/19/1992		
Last actio:	Record corrected		
Site id:	CO5000000375182		

I48
SSE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373653**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008138
Permitno:	213	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478957.90625
Utm y:	4431624.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	08/23/1957
Date per00:	Not Reported	Date well :	08/05/1957
Date 1st b:	08/05/1957	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	25
Tperf:	10	Bperf:	20
Pump rate:	10		
Static wat:	22	Full name:	WALKER E J MISS
Mailing ad:	3433 4TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	245	Pump lic:	Not Reported
Date last :	04/16/1991		
Last actio:	Record corrected		
Site id:	CO5000000373653		

I49
SSE **CO WELLS** **CO5000000373652**
1/2 - 1 Mile
Lower

Div:	1	Wd:	6
Wdid:	0	Receipt:	0010020
Permitno:	15793	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478957.90625

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4431624.1		
Loc accura:	Spotted from quarters	Permitted :	1
Use1:	IRRIGATION	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	07/31/1971	Date permi:	09/03/1971
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	JIM O NEAL INC.
Mailing ad:	3250 O NEAL CIRCLE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/03/1972		
Last actio:	Date permit expires if well not constructed		
Site id:	CO5000000373652		

I50
SSE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373655**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9010235
Permitno:	26239	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478957.90625
Utm y:	4431624.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/09/1966	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	35
Tperf:	0	Bperf:	0
Pump rate:	30		
Static wat:	13	Full name:	HUTCHINS MARK C
Mailing ad:	1720 S MARSHALL		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	01/09/1966		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373655		

I51
SSE **CO WELLS** **CO5000000373654**
1/2 - 1 Mile
Lower

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009945
Permitno:	22149	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478957.90625
Utm y:	4431624.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	10/30/1964	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	80
Tperf:	0	Bperf:	0
Pump rate:	1		
Static wat:	14	Full name:	DRAGOO ROY
Mailing ad:	RT 2 BOX 112		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/30/1964		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373654		

52
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376138**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0489679
Permitno:	240121	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GOULD	Filing:	Not Reported
Lot:	7	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	1450
Coordsns d:	S	Coordsew:	1600
Coordsew d:	W	Utm x:	478036.1875
Utm y:	4433079		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	.5		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	03/28/2002	Date permi:	04/16/2002
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/01/1961	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	SALANCE RORY A & BARBARA JANE
Mailing ad:	3630 21ST ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304-
Driller li:	LR	Pump lic:	Not Reported
Date last :	01/07/2005		
Last actio:	Change of Ownership		
Site id:	CO5000000376138		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
J53 **NW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000376266**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0091266
Permitno:	97450	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GOULD	Filing:	Not Reported
Lot:	13	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	.75		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	1776
Coordsns d:	S	Coordsew:	1852
Coordsew d:	W	Utm x:	478112.3125
Utm y:	4433179		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	.75		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	03/24/1978	Date permi:	04/10/1978
Date per00:	04/10/1980	Date well :	06/30/1978
Date 1st b:	06/06/1978	Date pump :	06/30/1978
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	70
Tperf:	21	Bperf:	70
Pump rate:	15		
Static wat:	12	Full name:	CLIFFORD LOUIS
Mailing ad:	KING ANN E 4056 STONE PLACE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	24	Pump lic:	495
Date last :	06/30/2007		
Last actio:	Record corrected		
Site id:	CO5000000376266		

J54 **NW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000376267**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9013785
Permitno:	97450	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Abandoned
Current st:	11	Well name:	Not Reported
Case no:	W3886	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GOULD	Filing:	Not Reported
Lot:	12	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	1776
Coordsns d:	S	Coordsew:	1852
Coordsew d:	W	Utm x:	478112.3125
Utm y:	4433179.1		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	03/24/1978	Date permi:	04/10/1978
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	06/15/1954	Date pump :	Not Reported
Date wel00:	06/26/1978		
Comment :	Also lot #14.		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	CLIFFORD LOUIS
Mailing ad:	KING ANN E 4056 STONE PLACE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	LR	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000376267		

55
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373875**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0343390
Permitno:	166631	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	ALBERTSONS-SKAGGS-FARBER	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	2	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	2400
Coordsns d:	S	Coordsew:	2000
Coordsew d:	W	Utm x:	478160.3125
Utm y:	4431739.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	G
Use3:	GRAVEL PIT	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	09/01/1992	Date permi:	10/06/1992
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	RESOLUTION TRUST CORP
Mailing ad:	C/O ENPRO CONSULTING GRP 1919 14TH ST STE 410		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	LIC	Pump lic:	Not Reported
Date last :	07/25/1997		
Last actio:	Record corrected		
Site id:	CO5000000373875		

J56
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376388**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008318
Permitno:	2082	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.09375

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4433241.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	09/29/1958	Date permi:	09/29/1958
Date per00:	Not Reported	Date well :	09/08/1958
Date 1st b:	09/08/1958	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	60
Tperf:	30	Bperf:	60
Pump rate:	3		
Static wat:	20	Full name:	PARKER E S
Mailing ad:	RT 2 BX 138		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	246	Pump lic:	Not Reported
Date last :	03/07/1994		
Last actio:	Record corrected		
Site id:	CO5000000376388		

J57
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376387**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0900669
Permitno:	4229	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Canceled
Current st:	8	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	UNKNOWN
Designated:	0	Designat00:	Not Reported
Subdivisio:	TRACT 11 GAULDS	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.09375
Utm y:	4433241.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	08/26/1959	Date permi:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	MAESTAS R P & RUBY
Mailing ad:	1722 WATER ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	Not Reported
Driller li:	LIC	Pump lic:	Not Reported
Date last :	12/15/1999		
Last actio:	Record corrected		
Site id:	CO5000000376387		

J58
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376386**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0221607
Permitno:	123790	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GOULD	Filing:	Not Reported
Lot:	14	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.09375
Utm y:	4433241.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	12/03/1981	Date permi:	01/04/1982
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Filing #210698.		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BREMERS K G
Mailing ad:	Not Reported		
Mailing ci:	ENGLEWOOD		
Mailing st:	CO	Mailing zi:	80110

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	414	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000376386		

J59
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376391**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009869
Permitno:	21076	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.09375
Utm y:	4433241.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	08/03/1964	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	25		
Static wat:	5	Full name:	MAESTAS ROY P
Mailing ad:	1722 CANYON BL		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	08/03/1964		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000376391		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
J60 **NW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000376390**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009749
Permitno:	19413	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GOULD	Filing:	Not Reported
Lot:	10	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.09375
Utm y:	4433241.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	04/22/1964	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	4061 STONE PL		
Elev:	0	Well depth:	40
Tperf:	0	Bperf:	0
Pump rate:	10		
Static wat:	0	Full name:	MYRICK ROBERT L SR
Mailing ad:	3405 MARTIN DR		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	08/16/2012		
Last actio:	Record corrected		
Site id:	CO5000000376390		

J61 **NW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000376389**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008822
Permitno:	8743	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GOULD	Filing:	Not Reported
Lot:	7	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.09375
Utm y:	4433241.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	05/25/1961	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	45
Tperf:	0	Bperf:	0
Pump rate:	20		
Static wat:	6	Full name:	SMOOT BRYAN J
Mailing ad:	2953 14TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000376389		

I62
SSE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373523**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9012600
Permitno:	68119	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	1770
Coordsns d:	S	Coordsew:	800
Coordsew d:	E	Utm x:	478914.90625
Utm y:	4431552		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	03/15/1973	Date permi:	03/27/1973
Date per00:	Not Reported	Date well :	01/30/1973
Date 1st b:	01/30/1973	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	40
Tperf:	10	Bperf:	40
Pump rate:	.7		
Static wat:	10	Full name:	GRIFFIN DANIEL W
Mailing ad:	875 INCA PKWY		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80303
Driller li:	716	Pump lic:	Not Reported
Date last :	12/28/2004		
Last actio:	Record corrected		
Site id:	CO5000000373523		

F63
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374925**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009338
Permitno:	14460	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477753

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4432431.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	02/28/1963	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	100
Tperf:	0	Bperf:	0
Pump rate:	1		
Static wat:	40	Full name:	EBEL ALEXANDER E
Mailing ad:	3805 N BROADWAY		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	02/28/1963		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000374925		

F64
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374924**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0904813
Permitno:	53596	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477753
Utm y:	4432431.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	03/09/1972	Date permi:	03/20/1972

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	FRY DUANE R
Mailing ad:	3790 FOLSOM		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302-
Driller li:	245	Pump lic:	Not Reported
Date last :	05/20/2004		
Last actio:	Record corrected		
Site id:	CO5000000374924		

F65
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374927**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9011901
Permitno:	53594	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477753
Utm y:	4432431.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	03/09/1972	Date permi:	03/20/1972
Date per00:	Not Reported	Date well :	04/11/1972
Date 1st b:	04/11/1972	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	40
Tperf:	10	Bperf:	20
Pump rate:	12		
Static wat:	12	Full name:	FRY DUANE R
Mailing ad:	3790 FOLSOM		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	245	Pump lic:	Not Reported
Date last :	05/20/2004		
Last actio:	Record corrected		
Site id:	CO5000000374927		

F66
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374926**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009468
Permitno:	15787	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477753
Utm y:	4432431.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	05/23/1963	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	37
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	14	Full name:	LUMRY ELLEN
Mailing ad:	RT 2 BOX 126		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	05/23/1963		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000374926		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
K67 **NE** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS40000216687**

Org. Identifier:	USGS-CO		
Formal name:	USGS Colorado Water Science Center		
Monloc Identifier:	USGS-400305105143300		
Monloc name:	SB00107016BCCD SITE 456		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	10190005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.0513744
Longitude:	-105.2430445	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	minutes
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Alluvium and Terrace Deposits		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

K68 **NE** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS40000216688**

Org. Identifier:	USGS-CO		
Formal name:	USGS Colorado Water Science Center		
Monloc Identifier:	USGS-400305105143301		
Monloc name:	SB00107016BCC		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	10190005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.0513744
Longitude:	-105.2430445	Sourcemap scale:	Not Reported
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	5317.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported		
Construction date:	19610101	Welldepth:	18
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

L69
SE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373735**

Div:	1	Wd:	6
Wdid:	0	Receipt:	3649451C
Permitno:	74	Permitsuf:	GX
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2100
Coordsns d:	S	Coordsew:	337
Coordsew d:	W	Utm x:	479261.90625
Utm y:	4431654		
Loc accura:	Spotted from section lines	Permitted :	G
Use1:	GEOTHERMAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	03/15/2011	Date permi:	03/15/2011
Date per00:	03/15/2012	Date well :	05/13/2011
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	455
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	UCAR - RAL
Mailing ad:	PO BOX 3000		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80307-

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	GT-89	Pump lic:	Not Reported
Date last :	06/14/2011		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000373735		

M70
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373955**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0313601
Permitno:	157707	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	2630
Coordsns d:	S	Coordsew:	1360
Coordsew d:	W	Utm x:	477965.3125
Utm y:	4431808.6		
Loc accura:	Spotted from section lines	Permitted :	3
Use1:	COMMERCIAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	1		
Date appli:	05/23/1990	Date permi:	07/19/1990
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	04/01/1958	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	20
Tperf:	0	Bperf:	0
Pump rate:	9		
Static wat:	0	Full name:	ACE SELF STORAGE PARTNERSHIP
Mailing ad:	4587 N BROADWAY		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304
Driller li:	LR	Pump lic:	Not Reported
Date last :	06/25/1992		
Last actio:	Record corrected		
Site id:	CO5000000373955		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
71 **NW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000376607**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9013594
Permitno:	91782	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GOULD	Filing:	Not Reported
Lot:	15	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	2211
Coordsns d:	S	Coordsew:	1920
Coordsew d:	W	Utm x:	478132
Utm y:	4433311.5		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	07/11/1977	Date permi:	07/21/1977
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	10/31/1957	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	4		
Static wat:	11	Full name:	BRUNET MYRTLE
Mailing ad:	4126 STONE PLACE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	LR	Pump lic:	Not Reported
Date last :	09/01/2005		
Last actio:	Record corrected		
Site id:	CO5000000376607		

N72 **WNW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000375678**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070086
Permitno:	86	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477752
Utm y:	4432836.5		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	12/13/1955
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	MAY W R
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	246	Pump lic:	Not Reported
Date last :	08/30/2012		
Last actio:	Record corrected		
Site id:	CO5000000375678		

N73
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375680**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008509
Permitno:	4559	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.90625
Utm y:	4432836.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	09/21/1959	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	31
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	12	Full name:	HURLBURT CHESTER L & CLARENCE D
Mailing ad:	RT 3 BX 359		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/21/1959		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000375680		

N74
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375679**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008365
Permitno:	2675	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.90625

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4432836.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/15/1959	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	64
Tperf:	0	Bperf:	0
Pump rate:	1		
Static wat:	0	Full name:	HANSON W W
Mailing ad:	BX 383		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	01/15/1959		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000375679		

N75
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375682**

Div:	1	Wd:	6
Wdid:	606035	Receipt:	9011613
Permitno:	47351	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.90625
Utm y:	4432836.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	08/20/1968	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	12
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	10	Full name:	HEADRICK BERTIE L
Mailing ad:	160 HEMLOCK WAY		
Mailing ci:	BROOMFIELD		
Mailing st:	CO	Mailing zi:	80020
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	08/20/1968		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000375682		

N76
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375681**

Div:	1	Wd:	6
Wdid:	605394	Receipt:	9011614
Permitno:	47352	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.90625
Utm y:	4432836.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	11
Tperf:	0	Bperf:	0
Pump rate:	50		
Static wat:	4	Full name:	HEADRICK BERTIE L
Mailing ad:	160 HEMLOCK WAY		
Mailing ci:	BROOMFIELD		
Mailing st:	CO	Mailing zi:	80020

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	Not Reported		
Last actio:	Not Reported		
Site id:	CO5000000375681		

O77
SSW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373613**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0019484
Permitno:	19484	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478153.6875
Utm y:	4431619.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	08/04/1992	Date permi:	08/04/1992
Date per00:	11/02/1992	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	RESOULTION TRUST % ENPRO CONS GP
Mailing ad:	1919 14TH ST #410		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	08/04/1992		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373613		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
O78 **SSW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373614**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0041733
Permitno:	41733	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478153.6875
Utm y:	4431619.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	01/22/2003	Date permi:	01/24/2003
Date per00:	04/22/2003	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	CONOCO INC
Mailing ad:	C/O SECOR INTERNATIONAL INC 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	01/24/2003		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373614		

M79 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373936**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0505274A
Permitno:	247753	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-8
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2580
Coordsns d:	S	Coordsew:	1260
Coordsew d:	W	Utm x:	477934.8125
Utm y:	4431793.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	02/05/2003	Date permi:	02/18/2003
Date per00:	Not Reported	Date well :	01/28/2003
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	4	Bperf:	14
Pump rate:	0		
Static wat:	0	Full name:	CONOCO PHILLIPS
Mailing ad:	C/O SECOR 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401-
Driller li:	EXST	Pump lic:	Not Reported
Date last :	02/18/2003		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373936		

M80
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373917**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0505274B
Permitno:	247754	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-9
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2520
Coordsns d:	S	Coordsew:	1310
Coordsew d:	W	Utm x:	477950
Utm y:	4431775.1		
Loc accura:	User supplied	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	02/05/2003	Date permi:	02/18/2003
Date per00:	Not Reported	Date well :	01/28/2003
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	3	Bperf:	13
Pump rate:	0		
Static wat:	0	Full name:	CONOCO PHILLIPS
Mailing ad:	C/O SECOR 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401-
Driller li:	EXST	Pump lic:	Not Reported
Date last :	02/18/2003		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373917		

M81
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373946**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0426687B
Permitno:	208487	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2600
Coordsns d:	S	Coordsew:	1200
Coordsew d:	W	Utm x:	477916.5

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4431799.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	02/17/1998	Date permi:	03/10/1998
Date per00:	03/10/2000	Date well :	01/13/1998
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	10
Tperf:	2	Bperf:	10
Pump rate:	0		
Static wat:	0	Full name:	CONOCO INC
Mailing ad:	C/O TETRA TECH NUS INC 1746 COLE BLVD BLDG 21300		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	03/10/1998		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373946		

82
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376525**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9014058
Permitno:	123790	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	2100
Coordsns d:	S	Coordsew:	1540
Coordsew d:	W	Utm x:	478016.40625
Utm y:	4433277.1		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/30/1940	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	15
Tperf:	0	Bperf:	0
Pump rate:	5		
Static wat:	0	Full name:	BREMERS KAREN GREENSPUN
Mailing ad:	2292 E. DARTMOUTH AVE		
Mailing ci:	ENGLEWOOD		
Mailing st:	CO	Mailing zi:	80110
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	12/30/1940		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000376525		

P83
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375007**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9012639
Permitno:	68792	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NW	Coordsns:	600
Coordsns d:	N	Coordsew:	320
Coordsew d:	W	Utm x:	477649.1875
Utm y:	4432451.5		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/13/1973	Date permi:	05/07/1973
Date per00:	Not Reported	Date well :	06/07/1973
Date 1st b:	05/07/1973	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	45
Tperf:	25	Bperf:	45
Pump rate:	1		
Static wat:	25	Full name:	LYNTON RICHARD D.
Mailing ad:	3712 N 26TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	716	Pump lic:	721
Date last :	01/10/2005		
Last actio:	Record corrected		
Site id:	CO5000000375007		

Q84
WSW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374351**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008350
Permitno:	2489	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477752.3125
Utm y:	4432024.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	11/24/1958	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	25		
Static wat:	9	Full name:	ENRIGHT JOE F
Mailing ad:	3143 BDWAY		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	11/24/1958		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000374351		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
Q85 **WSW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000374350**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0034107
Permitno:	34107	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477752.3125
Utm y:	4432024.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	08/03/1998	Date permi:	08/03/1998
Date per00:	11/03/1998	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	AMOCO CORP
Mailing ad:	C/O HANDEX OF COLORADO INC 400 CORPORATE CIRCLE STE T		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	04/22/2004		
Last actio:	Notice sent to owner indicating permit about to expire.		
Site id:	CO5000000374350		

Q86 **WSW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000374353**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9010439
Permitno:	29056	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477752.3125
Utm y:	4432024.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	10/16/1966	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	12	Full name:	JOHNSON ROBERT E
Mailing ad:	2749 IRIS		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/16/1966		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000374353		

Q87
WSW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374352**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009729
Permitno:	19138	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477752.3125
Utm y:	4432024.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/15/1963	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	10		
Static wat:	10	Full name:	WINCHELL W M
Mailing ad:	2500 DARTMOUTH AV		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	12/15/1963		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000374352		

P88
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375192**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0485018
Permitno:	353	Permitsuf:	G
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	LUMRY ESTATE	Filing:	Not Reported
Lot:	10	Block:	2
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	NW	Coordsns:	246
Coordsns d:	N	Coordsew:	319
Coordsew d:	W	Utm x:	477649

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4432559.6		
Loc accura:	Spotted from section lines	Permitted :	G
Use1:	GEOTHERMAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	C
Use3:	CLOSED LOOP GEOTHERMAL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	11/30/2001	Date permi:	12/18/2001
Date per00:	12/18/2002	Date well :	02/26/2002
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	200
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	ROSBOROUGH GEORGE
Mailing ad:	3647 LARKWOOD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304-
Driller li:	1149	Pump lic:	Not Reported
Date last :	03/08/2002		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000375192		

89
South
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373346**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0016647
Permitno:	16647	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Well Abandoned
Current st:	11	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	Not Reported	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478756.09375
Utm y:	4431419.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	08/03/1990	Date permi:	08/06/1990

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	11/03/1990	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	04/23/1991		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	ORCHARD GROVE MOBILE HOME PARK
Mailing ad:	C/O 1002 WALNUT ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80306
Driller li:	LIC	Pump lic:	Not Reported
Date last :	05/28/1991		
Last actio:	Date abandonment report received.		
Site id:	CO5000000373346		

M90
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373895**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0505274C
Permitno:	247755	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-10
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2460
Coordsns d:	S	Coordsew:	1230
Coordsew d:	W	Utm x:	477925.59375
Utm y:	4431756.6		
Loc accura:	User supplied	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	02/05/2003	Date permi:	02/18/2003
Date per00:	Not Reported	Date well :	01/27/2003
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	4	Bperf:	14
Pump rate:	0		
Static wat:	0	Full name:	CONOCO PHILLIPS
Mailing ad:	C/O SECOR 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401-

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	EXST	Pump lic:	Not Reported
Date last :	02/18/2003		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373895		

Q91
WSW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374444**

Div:	1	Wd:	2
Wdid:	0	Receipt:	0531585K
Permitno:	5	Permitsuf:	GX
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	1878
Coordsns d:	N	Coordsew:	574
Coordsew d:	W	Utm x:	477726.09375
Utm y:	4432063		
Loc accura:	Spotted from section lines	Permitted :	G
Use1:	GEOTHERMAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	11/02/2004
Date per00:	11/02/2005	Date well :	03/14/2005
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	185
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	VALLEY GEOTHERMAL
Mailing ad:	916 19TH AVE		
Mailing ci:	LONGMONT		
Mailing st:	CO	Mailing zi:	80501-
Driller li:	GT-10	Pump lic:	Not Reported
Date last :	04/21/2005		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000374444		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
M92 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373929**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0029940C
Permitno:	201662	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	JF25/MW-3
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2550
Coordsns d:	S	Coordsew:	1140
Coordsew d:	W	Utm x:	477898.1875
Utm y:	4431784.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	01/30/1997	Date permi:	03/20/1997
Date per00:	03/20/1999	Date well :	10/22/1996
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	10
Tperf:	2	Bperf:	10
Pump rate:	0		
Static wat:	8	Full name:	CONOCO INC
Mailing ad:	C/O BROWN & ROOT ENVIRO 1746 COLE BLVD #21-300		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	LIC	Pump lic:	Not Reported
Date last :	03/20/1997		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373929		

L93 **SE** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373661**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008322
Permitno:	2173	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479359.40625
Utm y:	4431625.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	10/06/1958	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	76
Tperf:	0	Bperf:	0
Pump rate:	1		
Static wat:	8	Full name:	TEEL LEAH & EDWARD
Mailing ad:	RT 2 BX 476		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/06/1958		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373661		

L94
SE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373662**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009249
Permitno:	13548	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479359.40625
Utm y:	4431625.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	11/20/1962	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	12
Tperf:	0	Bperf:	0
Pump rate:	10		
Static wat:	8	Full name:	GEORGE DAVID W
Mailing ad:	RT 2 BOX 406		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	11/20/1962		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373662		

L95
SE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373663**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9010241
Permitno:	26251	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479359.40625

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4431625.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/24/1965	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	100
Tperf:	0	Bperf:	0
Pump rate:	1		
Static wat:	18	Full name:	BLACKWELL E R
Mailing ad:	1610 30TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	12/24/1965		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373663		

M96
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373894**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0029940B
Permitno:	201661	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	JF25/MW-2
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2460
Coordsns d:	S	Coordsew:	1170
Coordsew d:	W	Utm x:	477907.3125
Utm y:	4431756.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	01/30/1997	Date permi:	03/20/1997

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	03/20/1999	Date well :	10/22/1996
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	14
Tperf:	4	Bperf:	14
Pump rate:	0		
Static wat:	7	Full name:	CONOCO INC
Mailing ad:	C/O BROWN & ROOT ENVIRO 1746 COLE BLVD #21-300		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	LIC	Pump lic:	Not Reported
Date last :	03/20/1997		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373894		

M97
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373813**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0480895
Permitno:	236318	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-7
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2300
Coordsns d:	S	Coordsew:	1300
Coordsew d:	W	Utm x:	477946.90625
Utm y:	4431708.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	08/15/2001	Date permi:	09/19/2001
Date per00:	09/19/2003	Date well :	07/27/2001
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	14
Tperf:	14	Bperf:	4
Pump rate:	0		
Static wat:	0	Full name:	CONOCO INC
Mailing ad:	C/O SECOR 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401-

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	AUTH	Pump lic:	Not Reported
Date last :	09/19/2001		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373813		

M98
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373867**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0029940A
Permitno:	201660	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	JF25/MW-4
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2400
Coordsns d:	S	Coordsew:	1200
Coordsew d:	W	Utm x:	477916.40625
Utm y:	4431738.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	01/30/1997	Date permi:	03/20/1997
Date per00:	03/20/1999	Date well :	10/22/1996
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	14
Tperf:	4	Bperf:	14
Pump rate:	0		
Static wat:	6	Full name:	CONOCO INC
Mailing ad:	C/O BROWN & ROOT ENVIRO 1746 COLE BLVD #21-300		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	LIC	Pump lic:	Not Reported
Date last :	03/20/1997		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373867		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
M99 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373868**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0426687A
Permitno:	208486	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Abandoned
Current st:	11	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2400
Coordsns d:	S	Coordsew:	1200
Coordsew d:	W	Utm x:	477916.40625
Utm y:	4431738.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	02/17/1998	Date permi:	03/10/1998
Date per00:	03/10/2000	Date well :	01/13/1998
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	07/10/2002		
Comment :	this well was destroyed during construction on the property. well cannot be located due to pavement & landscaping		
Elev:	0	Well depth:	10
Tperf:	2	Bperf:	10
Pump rate:	0		
Static wat:	0	Full name:	CONOCO INC
Mailing ad:	C/O TETRA TECH NUS INC 1746 COLE BLVD BLDG 21300		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	07/11/2002		
Last actio:	Date abandonment report received.		
Site id:	CO5000000373868		

M100 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373915**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0411289Z
Permitno:	201659	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	JF25/MW-4
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2520
Coordsns d:	S	Coordsew:	1090
Coordsew d:	W	Utm x:	477883
Utm y:	4431774.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	01/30/1997	Date permi:	03/20/1997
Date per00:	03/20/1999	Date well :	10/22/1996
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	13
Tperf:	3	Bperf:	13
Pump rate:	0		
Static wat:	6	Full name:	CONOCO INC
Mailing ad:	C/O BROWN & ROOT ENVIRO 1746 COLE BLVD #21-300		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	LIC	Pump lic:	Not Reported
Date last :	03/20/1997		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373915		

R101
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373780**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0505274D
Permitno:	247756	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-11
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2220
Coordsns d:	S	Coordsew:	1290
Coordsew d:	W	Utm x:	477943.8125
Utm y:	4431683.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	02/05/2003	Date permi:	02/18/2003
Date per00:	Not Reported	Date well :	01/27/2003
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	3	Bperf:	13
Pump rate:	0		
Static wat:	0	Full name:	CONOCO PHILLIPS
Mailing ad:	C/O SECOR 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401-
Driller li:	EXST	Pump lic:	Not Reported
Date last :	02/18/2003		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373780		

102
NNE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000376811**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0909389
Permitno:	70010	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	16
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	2695
Coordsns d:	S	Coordsew:	218
Coordsew d:	W	Utm x:	479224.8125

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4433465.5		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	06/04/1973	Date permi:	07/16/1973
Date per00:	07/16/1975	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	MOSHER MARY
Mailing ad:	5721 ARAPAHOE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80303-
Driller li:	2	Pump lic:	Not Reported
Date last :	09/17/2009		
Last actio:	Record corrected		
Site id:	CO5000000376811		

103
ENE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000375750**

Div:	1	Wd:	6
Wdid:	605770	Receipt:	9008608
Permitno:	5632	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	16
Seca:	Not Reported	Q160:	SW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479761.1875
Utm y:	4432841.1		
Loc accura:	Spotted from quarters	Permitted :	2
Use1:	MUNICIPAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	05/18/1964	Date permi:	05/18/1964

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	03/15/1964
Date 1st b:	04/15/1964	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	ALSO 4159-F		
Elev:	0	Well depth:	12
Tperf:	8	Bperf:	12
Pump rate:	40		
Static wat:	8	Full name:	SANS SOUCI MOBILE HOME PARK
Mailing ad:	RR 1 BOX 44		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	SELF	Pump lic:	Not Reported
Date last :	06/03/1994		
Last actio:	Record corrected		
Site id:	CO5000000375750		

N104
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375922**

Div:	1	Wd:	5
Wdid:	0	Receipt:	9013676
Permitno:	94850	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	900
Coordsns d:	S	Coordsew:	400
Coordsew d:	W	Utm x:	477671.6875
Utm y:	4432909		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	08/23/1977	Date permi:	11/10/1977
Date per00:	Not Reported	Date well :	11/07/1978
Date 1st b:	11/07/1978	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	38
Tperf:	14	Bperf:	38
Pump rate:	10		
Static wat:	12	Full name:	DEFER P J
Mailing ad:	2150 6TH		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	976	Pump lic:	Not Reported
Date last :	11/01/2005		
Last actio:	Record corrected		
Site id:	CO5000000375922		

S105
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373553**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0505274G
Permitno:	247759	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-14
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	1870
Coordsns d:	S	Coordsew:	1460
Coordsew d:	W	Utm x:	477995.5
Utm y:	4431577.1		
Loc accura:	User supplied	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	02/05/2003	Date permi:	02/18/2003
Date per00:	Not Reported	Date well :	01/28/2003
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	3	Bperf:	13
Pump rate:	0		
Static wat:	0	Full name:	CONOCO PHILLIPS
Mailing ad:	C/O SECOR 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401-
Driller li:	EXST	Pump lic:	Not Reported
Date last :	02/18/2003		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373553		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
R106 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373586**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0505274F
Permitno:	247758	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-13
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	1990
Coordsns d:	S	Coordsew:	1290
Coordsew d:	W	Utm x:	477943.6875
Utm y:	4431613.6		
Loc accura:	User supplied	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	02/05/2003	Date permi:	02/18/2003
Date per00:	Not Reported	Date well :	01/27/2003
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	4	Bperf:	14
Pump rate:	0		
Static wat:	0	Full name:	CONOCO PHILLIPS
Mailing ad:	C/O SECOR 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401-
Driller li:	EXST	Pump lic:	Not Reported
Date last :	02/18/2003		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373586		

T107 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373910**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0333263B
Permitno:	40647	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Well Abandoned
Current st:	11	Well name:	MW-2
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2500
Coordsns d:	S	Coordsew:	800
Coordsew d:	W	Utm x:	477794.59375
Utm y:	4431768.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	12/17/1991	Date permi:	01/31/1992
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	04/14/1994		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	KMART C/O ESE INC
Mailing ad:	2 INVERNESS DR E #201		
Mailing ci:	ENGLEWOOD		
Mailing st:	CO	Mailing zi:	80112
Driller li:	1240	Pump lic:	Not Reported
Date last :	04/25/1994		
Last actio:	Date abandonment report received.		
Site id:	CO5000000373910		

U108
NNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376820**

Div:	1	Wd:	5
Wdid:	0	Receipt:	0511930
Permitno:	251716	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Abandoned
Current st:	11	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2520
Coordsns d:	N	Coordsew:	1850
Coordsew d:	W	Utm x:	478109.40625
Utm y:	4433478.1		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	06/23/2003	Date permi:	07/11/2003
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	08/19/1963	Date pump :	Not Reported
Date wel00:	01/30/2004		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	MATTHEWS ANTHONY L & SUSAN
Mailing ad:	2865 JAY RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	EXST	Pump lic:	Not Reported
Date last :	02/06/2004		
Last actio:	Date abandonment report received.		
Site id:	CO5000000376820		

U109
NNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376821**

Div:	1	Wd:	5
Wdid:	0	Receipt:	0518537
Permitno:	251716	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	1.05		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2520
Coordsns d:	N	Coordsew:	1850
Coordsew d:	W	Utm x:	478109.40625

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4433478.1		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	.5		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	12/17/2003	Date permi:	12/17/2003
Date per00:	12/17/2005	Date well :	12/30/2003
Date 1st b:	Not Reported	Date pump :	12/27/2003
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	75
Tperf:	35	Bperf:	75
Pump rate:	13.6		
Static wat:	15	Full name:	MATTHEWS ANTHONY & SUSAN
Mailing ad:	BOULDER WATER WELL		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	1334	Pump lic:	1211
Date last :	01/22/2004		
Last actio:	Date the pump installation report is received by DWR.		
Site id:	CO5000000376821		

T110
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373908**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0333263A
Permitno:	40646	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	MW-1
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2500
Coordsns d:	S	Coordsew:	750
Coordsew d:	W	Utm x:	477779.3125
Utm y:	4431768.1		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	12/17/1991	Date permi:	01/31/1992

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	01/31/1993	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	KMART C/O ESE INC
Mailing ad:	2 INVERNESS DR E #201		
Mailing ci:	ENGLEWOOD		
Mailing st:	CO	Mailing zi:	80112
Driller li:	1240	Pump lic:	Not Reported
Date last :	01/17/2001		
Last actio:	Record corrected		
Site id:	CO5000000373908		

111
North
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377160**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0030979
Permitno:	16874	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478552.5
Utm y:	4433644.6		
Loc accura:	Spotted from quarters	Permitted :	2
Use1:	MUNICIPAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	05/22/1972	Date permi:	02/07/1973
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	NUZUM DWAYNE
Mailing ad:	1737 15TH		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	02/07/1974		
Last actio:	Date permit expires if well not constructed		
Site id:	CO5000000377160		

R112
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373585**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0505274E
Permitno:	247757	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-12
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	1990
Coordsns d:	S	Coordsew:	1190
Coordsew d:	W	Utm x:	477913.1875
Utm y:	4431613.6		
Loc accura:	User supplied	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	02/05/2003	Date permi:	02/18/2003
Date per00:	Not Reported	Date well :	01/27/2003
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	5	Bperf:	15
Pump rate:	0		
Static wat:	0	Full name:	CONOCO PHILLIPS
Mailing ad:	C/O SECOR 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401-
Driller li:	EXST	Pump lic:	Not Reported
Date last :	02/18/2003		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373585		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
113 **West** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000374916**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0545048O
Permitno:	5	Permitsuf:	GX
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	19
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	672
Coordsns d:	N	Coordsew:	101
Coordsew d:	E	Utm x:	477520.90625
Utm y:	4432429		
Loc accura:	Spotted from section lines	Permitted :	X
Use1:	ALL BENEFICIAL USES	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	10/24/2005	Date permi:	11/03/2005
Date per00:	11/03/2006	Date well :	02/28/2006
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	185
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	SHEPARD JIM & LORRIE
Mailing ad:	3695 26TH STREET		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304-
Driller li:	GT-10	Pump lic:	Not Reported
Date last :	03/30/2006		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000374916		

114 **NNE** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000377168**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0030980
Permitno:	16873	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478955.8125
Utm y:	4433646.1		
Loc accura:	Spotted from quarters	Permitted :	2
Use1:	MUNICIPAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	05/22/1972	Date permi:	02/07/1973
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	NUZUM DWAYNE
Mailing ad:	1737 15TH		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	02/07/1974		
Last actio:	Date permit expires if well not constructed		
Site id:	CO5000000377168		

T115
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373864**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0333263C
Permitno:	40648	Permitsuf:	M
Permitrpl:	Not Reported	Status des:	Well Abandoned
Current st:	11	Well name:	MW-3
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2400
Coordsns d:	S	Coordsew:	700
Coordsew d:	W	Utm x:	477764.09375
Utm y:	4431737.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	12/17/1991	Date permi:	01/31/1992
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	04/14/1994		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	KMART C/O ESE INC
Mailing ad:	2 INVERNESS DR E #201		
Mailing ci:	ENGLEWOOD		
Mailing st:	CO	Mailing zi:	80112
Driller li:	1240	Pump lic:	Not Reported
Date last :	04/25/1994		
Last actio:	Date abandonment report received.		
Site id:	CO5000000373864		

V116
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376718**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0356921
Permitno:	13292	Permitsuf:	AD
Permitrpl:	Not Reported	Status des:	Application Denied
Current st:	3	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	SCHLERETH	Filing:	Not Reported
Lot:	A	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2525
Coordsns d:	S	Coordsew:	1250
Coordsew d:	W	Utm x:	477927.09375

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4433406.1		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	07/02/1993	Date permi:	03/31/1994
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	SCHLERETH GEORGE
Mailing ad:	2820 JAY RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	495	Pump lic:	Not Reported
Date last :	03/31/1994		
Last actio:	Date the permit was issued.		
Site id:	CO5000000376718		

V117
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376719**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0393817
Permitno:	13786	Permitsuf:	AD
Permitrpl:	Not Reported	Status des:	Application Denied
Current st:	3	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	SCHLERETH	Filing:	Not Reported
Lot:	A	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	.72		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2525
Coordsns d:	S	Coordsew:	1250
Coordsew d:	W	Utm x:	477927.09375
Utm y:	4433406.1		
Loc accura:	Spotted from section lines	Permitted :	3
Use1:	COMMERCIAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	12/04/1995	Date permi:	01/24/1996

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BAUMAN CYNTHIA LYNN DVM
Mailing ad:	FOOTHILLS ANIMAL CLINIC		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	495	Pump lic:	Not Reported
Date last :	01/24/1996		
Last actio:	Date the permit was issued.		
Site id:	CO5000000376719		

V118
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376720**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9013259
Permitno:	84508	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	2525
Coordsns d:	S	Coordsew:	1250
Coordsew d:	W	Utm x:	477927.09375
Utm y:	4433406.1		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	06/07/1976	Date permi:	06/23/1976
Date per00:	Not Reported	Date well :	08/30/1976
Date 1st b:	08/30/1976	Date pump :	03/14/1979
Date wel00:	Not Reported		
Comment :	Tract 2466A.		
Elev:	0	Well depth:	250
Tperf:	190	Bperf:	250
Pump rate:	1		
Static wat:	7	Full name:	BRESLER NEIL S & MARJORIE R
Mailing ad:	2820 JAY ROAD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	495	Pump lic:	927
Date last :	09/29/2011		
Last actio:	Record corrected		
Site id:	CO5000000376720		

S119
SW
1/2 - 1 Mile
Higher

Shallow Water Depth:	4.65	**AQUIFLOW**	**10358**
Groundwater Flow:	SW		
Deep Water Depth:	6.35		
Date:	2/92		

W120
WSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000216437**

Org. Identifier:	USGS-CO		
Formal name:	USGS Colorado Water Science Center		
Monloc Identifier:	USGS-400226105154500		
Monloc name:	SB00107020BBCC SITE 448		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	10190005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.0405411
Longitude:	-105.2630453	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	minutes
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Alluvium and Terrace Deposits		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

W121
WSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000216438**

Org. Identifier:	USGS-CO		
Formal name:	USGS Colorado Water Science Center		
Monloc Identifier:	USGS-400226105154501		
Monloc name:	SB00107020BBC		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	10190005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.0405411
Longitude:	-105.2630453	Sourcemap scale:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	5355.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19630101	Welldepth:	37
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-01	13.00	

X122
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376380**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008133
Permitno:	119	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477749
Utm y:	4433239.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	07/31/1957

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	06/26/1957
Date 1st b:	06/26/1957	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	15	Bperf:	29
Pump rate:	30		
Static wat:	27	Full name:	WALTER HAROLD T
Mailing ad:	RT 2 BX 388 C		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	246	Pump lic:	Not Reported
Date last :	02/20/1990		
Last actio:	Record corrected		
Site id:	CO5000000376380		

X123
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376381**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009662
Permitno:	18246	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477749
Utm y:	4433239.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	11/30/1963	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	7		
Static wat:	14	Full name:	ERICKSON ARCHIE
Mailing ad:	RT 2 BOX 161		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	11/30/1963		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000376381		

124
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375383**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9011848
Permitno:	52133	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	SE	Coordsns:	160
Coordsns d:	S	Coordsew:	176
Coordsew d:	E	Utm x:	477497.90625
Utm y:	4432682.6		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	02/24/1972	Date permi:	03/06/1972
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/25/1952	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	12
Tperf:	0	Bperf:	0
Pump rate:	20		
Static wat:	0	Full name:	MACKENZIE MW & EDNA M
Mailing ad:	3827 N 26TH		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	LR	Pump lic:	Not Reported
Date last :	05/05/2004		
Last actio:	Record corrected		
Site id:	CO5000000375383		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
Y125 **South** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373020**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0018951
Permitno:	18951	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478554.5
Utm y:	4431214.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/14/1992	Date permi:	04/14/1992
Date per00:	07/13/1992	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	TENNECO INC % IT CORP
Mailing ad:	5600 S QUEBEC ST #280D		
Mailing ci:	ENGLEWOOD		
Mailing st:	CO	Mailing zi:	80111
Driller li:	LIC	Pump lic:	Not Reported
Date last :	04/14/1992		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373020		

Y126 **South** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373021**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008191
Permitno:	583	Permitsuf:	RN
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478554.5
Utm y:	4431214.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	10/23/1967
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	WELL WAS FIRST USED IN 1946		
Elev:	0	Well depth:	15
Tperf:	0	Bperf:	0
Pump rate:	5		
Static wat:	8	Full name:	APPLEGATE ED
Mailing ad:	R R 2 BX 438		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	02/14/1990		
Last actio:	Record corrected		
Site id:	CO5000000373021		

Y127
South
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373022**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008192
Permitno:	584	Permitsuf:	RN
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478554.5
Utm y:	4431214.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	12/30/1940
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	WELL WAS FIRST USED IN 1940		
Elev:	0	Well depth:	65
Tperf:	0	Bperf:	0
Pump rate:	10		
Static wat:	50	Full name:	APPLEGATE ED
Mailing ad:	R R 2 BX 438		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	02/14/1990		
Last actio:	Record corrected		
Site id:	CO5000000373022		

Z128
NNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377152**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070432
Permitno:	432	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478149.40625

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4433643		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	03/11/1957
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	90
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	OLIVER JOHN C
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	246	Pump lic:	Not Reported
Date last :	08/30/2012		
Last actio:	Record corrected		
Site id:	CO5000000377152		

129
East
1/2 - 1 Mile
Lower

CO WELLS **CO5000000375176**

Div:	1	Wd:	6
Wdid:	605827	Receipt:	0334139
Permitno:	162991	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	WEST WELL
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	310
Coordsns d:	N	Coordsew:	2725
Coordsew d:	W	Utm x:	479993.59375
Utm y:	4432543.6		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	1		
Date appli:	01/14/1992	Date permi:	02/25/1992

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/31/1910	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	4
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	0	Full name:	SWIFT VIRGINIA
Mailing ad:	5105 INDEPENDENCE RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	LR	Pump lic:	Not Reported
Date last :	12/16/1996		
Last actio:	Change of Ownership		
Site id:	CO5000000375176		

Z130
NNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377153**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0030977
Permitno:	16872	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478149.3125
Utm y:	4433643.1		
Loc accura:	Spotted from quarters	Permitted :	2
Use1:	MUNICIPAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	05/22/1972	Date permi:	02/07/1973
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	NUZUM DWAYNE
Mailing ad:	1737 15TH		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	02/07/1974		
Last actio:	Date permit expires if well not constructed		
Site id:	CO5000000377153		

AA131
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373598**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0039878
Permitno:	39878	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Well Abandoned
Current st:	11	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.59375
Utm y:	4431617.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	07/30/2001	Date permi:	07/31/2001
Date per00:	10/30/2001	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	07/01/2002		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	CONOCO INC
Mailing ad:	C/O SECOR INTERNATIONAL INC 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	07/11/2002		
Last actio:	Date abandonment report received.		
Site id:	CO5000000373598		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AA132 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373599**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0041732
Permitno:	41732	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.59375
Utm y:	4431617.1		
Loc accura:	User supplied	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	01/22/2003	Date permi:	01/24/2003
Date per00:	04/22/2003	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	6 WELLS		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	CONOCO INC
Mailing ad:	C/O SECOR INTERNATIONAL INC 14998 W 6TH AVE STE 800		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	01/24/2003		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373599		

AA133 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373596**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0029469
Permitno:	29469	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.59375
Utm y:	4431617.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	10/15/1996	Date permi:	10/15/1996
Date per00:	01/15/1997	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	X-REF-201659-201662		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	CONOCO INC
Mailing ad:	C/O BROWN & ROOT ENVIRO 1746 COLE BLVD #21 #300		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80401
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	10/18/2001		
Last actio:	Record corrected		
Site id:	CO5000000373596		

AA134
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373597**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0032042
Permitno:	32042	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.59375
Utm y:	4431617.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	10/15/1997	Date permi:	10/16/1997
Date per00:	02/16/1998	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	SAFEWAY/HOWARD CHERNE
Mailing ad:	C/O ERM 5950 S WILLOW DR #200		
Mailing ci:	GREENWOOD VILAG		
Mailing st:	CO	Mailing zi:	80111
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	11/17/1997		
Last actio:	Record corrected		
Site id:	CO5000000373597		

AA135
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373602**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008420
Permitno:	3334	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.59375

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4431617.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	04/06/1959	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	31
Tperf:	0	Bperf:	0
Pump rate:	20		
Static wat:	7	Full name:	APLERS L B & J H A
Mailing ad:	RT 2 BX 348 A		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	04/06/1959		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373602		

AA136
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373603**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9010660
Permitno:	31676	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.59375
Utm y:	4431617.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	08/14/1967	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	31
Tperf:	0	Bperf:	0
Pump rate:	20		
Static wat:	8	Full name:	PRITCHARD MARVEL
Mailing ad:	3356 26TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	08/14/1967		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373603		

AA137
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373600**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008134
Permitno:	152	Permitsuf:	RN
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.59375
Utm y:	4431617.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	12/30/1956
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	24
Tperf:	20	Bperf:	24
Pump rate:	50		
Static wat:	8	Full name:	WELCH SAMUEL W J
Mailing ad:	R R 2 BX 93		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/19/1990		
Last actio:	Record corrected		
Site id:	CO5000000373600		

AA138
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373601**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008409
Permitno:	3242	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.59375
Utm y:	4431617.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	04/25/1959	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	31
Tperf:	0	Bperf:	0
Pump rate:	20		
Static wat:	8	Full name:	MORRE JOY G
Mailing ad:	RT 2 BX 349		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	04/25/1959		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373601		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AA139 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373595**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070185
Permitno:	185	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477751.59375
Utm y:	4431617		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	09/28/1953	Date permi:	09/28/1953
Date per00:	Not Reported	Date well :	08/20/1953
Date 1st b:	08/19/1953	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	31
Tperf:	15	Bperf:	30
Pump rate:	0		
Static wat:	5	Full name:	STEWART HAROLD
Mailing ad:	N 26TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304-
Driller li:	16	Pump lic:	Not Reported
Date last :	10/06/2010		
Last actio:	Record corrected		
Site id:	CO5000000373595		

140 **SSE** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373033**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009933
Permitno:	22076	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SE
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478956.3125
Utm y:	4431216.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	09/28/1964	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	30		
Static wat:	14	Full name:	SLOAN IRENE
Mailing ad:	730 37TH		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/28/1964		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373033		

AB141
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375982**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0089365
Permitno:	96684	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	SE	Coordsns:	1050
Coordsns d:	S	Coordsew:	150
Coordsew d:	E	Utm x:	477503.8125
Utm y:	4432954.1		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	01/26/1978	Date permi:	02/21/1978
Date per00:	Not Reported	Date well :	02/24/1978
Date 1st b:	12/28/1977	Date pump :	12/28/1977
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	15
Tperf:	10	Bperf:	15
Pump rate:	15		
Static wat:	8	Full name:	MCLEISH PORTIA
Mailing ad:	4251 NELSON RD		
Mailing ci:	LONGMONT		
Mailing st:	CO	Mailing zi:	80501
Driller li:	716	Pump lic:	716
Date last :	10/29/1997		
Last actio:	Record corrected		
Site id:	CO5000000375982		

142
NE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000376433**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070183
Permitno:	183	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	16
Seca:	Not Reported	Q160:	SW
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479759.40625

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4433243.5		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	09/23/1953	Date permi:	09/23/1953
Date per00:	Not Reported	Date well :	09/21/1953
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	25
Tperf:	8	Bperf:	18
Pump rate:	0		
Static wat:	8	Full name:	DAVIES ELLEN & SHIRLEY
Mailing ad:	MARSHALL		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	16	Pump lic:	Not Reported
Date last :	08/05/2009		
Last actio:	Record corrected		
Site id:	CO5000000376433		

143
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373337**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0018636
Permitno:	18636	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	Not Reported	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477952.09375
Utm y:	4431414.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	02/04/1992	Date permi:	02/04/1992

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	05/04/1992	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BLULDER PUBLIC WORKS
Mailing ad:	C/O 96 S ZUNI ST		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80223
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	02/04/1992		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373337		

AB144
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376031**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9013750
Permitno:	96684	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	SE	Coordsns:	1200
Coordsns d:	S	Coordsew:	150
Coordsew d:	E	Utm x:	477503.40625
Utm y:	4432999.6		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	acres		
Annual app:	0		
Date appli:	01/26/1978	Date permi:	02/21/1978
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/01/1940	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	25
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	8	Full name:	MCLEISH PORTIA
Mailing ad:	4251 NELSON RD		
Mailing ci:	LONGMONT		
Mailing st:	CO	Mailing zi:	80501

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	LR	Pump lic:	Not Reported
Date last :	10/29/1997		
Last actio:	Record corrected		
Site id:	CO5000000376031		

145
NNE
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377313**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0030978
Permitno:	16871	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	1700
Coordsns d:	N	Coordsew:	20
Coordsew d:	E	Utm x:	479150.59375
Utm y:	4433730.6		
Loc accura:	Spotted from section lines	Permitted :	2
Use1:	MUNICIPAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	05/22/1972	Date permi:	02/07/1973
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	NUZUM DWAYNE
Mailing ad:	1737 15TH		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	02/07/1974		
Last actio:	Date permit expires if well not constructed		
Site id:	CO5000000377313		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AC146 **NNE** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000377173**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0233279
Permitno:	129605	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	16
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479357.1875
Utm y:	4433646.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	02/14/1983	Date permi:	03/28/1983
Date per00:	Not Reported	Date well :	08/19/1983
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	32
Tperf:	14	Bperf:	30
Pump rate:	17		
Static wat:	7	Full name:	NU-WEST INC
Mailing ad:	Not Reported		
Mailing ci:	AURORA		
Mailing st:	CO	Mailing zi:	80014
Driller li:	267	Pump lic:	Not Reported
Date last :	09/26/1983		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000377173		

AC147 **NNE** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000377174**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9010422
Permitno:	28805	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	16
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479357.1875
Utm y:	4433646.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	09/13/1966	Date permi:	09/13/1966
Date per00:	Not Reported	Date well :	09/19/1966
Date 1st b:	09/17/1966	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	40
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	HOZA FRANK
Mailing ad:	4791 JAY ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/17/2009		
Last actio:	Record corrected		
Site id:	CO5000000377174		

AC148
NE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000377028**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0298672
Permitno:	153821	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	16
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	2140
Coordsns d:	N	Coordsew:	1000
Coordsew d:	W	Utm x:	479462.40625
Utm y:	4433596.6		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	03/31/1989	Date permi:	04/19/1989
Date per00:	04/19/1991	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	STODIECK LOUIS S & PATRICIA LEJEUNE
Mailing ad:	2429 SPRUCE ST #1		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	716	Pump lic:	Not Reported
Date last :	04/19/1991		
Last actio:	Date permit expires if well not constructed		
Site id:	CO5000000377028		

AD149
NNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377107**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0322429
Permitno:	160084	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2000
Coordsns d:	N	Coordsew:	1500
Coordsew d:	W	Utm x:	478001.5

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4433636.1		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	02/14/1991	Date permi:	05/22/1991
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	SIEBEN TERENCE
Mailing ad:	8165 2ND AVE		
Mailing ci:	GOLDEN		
Mailing st:	CO	Mailing zi:	80403
Driller li:	LIC	Pump lic:	Not Reported
Date last :	03/16/2006		
Last actio:	Date permit expires if well not constructed		
Site id:	CO5000000377107		

AD150
NNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377109**

Div:	1	Wd:	6
Wdid:	0	Receipt:	3601622
Permitno:	268048	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	4.5		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	2000
Coordsns d:	N	Coordsew:	1500
Coordsew d:	W	Utm x:	478001.59375
Utm y:	4433636.5		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	03/14/2006	Date permi:	03/16/2006

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	03/16/2008	Date well :	08/17/2006
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Well Construction Variance 2006-048A was approved by the BOE on May 1, 2006. MPS		
Elev:	0	Well depth:	20
Tperf:	8	Bperf:	20
Pump rate:	0		
Static wat:	10	Full name:	KAROWE MATTHEW W & DIANA Z
Mailing ad:	2825 JAY RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	SELF	Pump lic:	Not Reported
Date last :	10/23/2007		
Last actio:	Change of Ownership		
Site id:	CO5000000377109		

AE151
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374918**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008821
Permitno:	8738	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	CAROLYN HEIGHTS	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	19
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477349.5
Utm y:	4432430.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	05/27/1961	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	60
Tperf:	0	Bperf:	0
Pump rate:	1		
Static wat:	8	Full name:	BOWMAN WM
Mailing ad:	2831 20TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000374918		

AE152
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374917**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008240
Permitno:	919	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	19
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477349.5
Utm y:	4432430.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	03/15/1958	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	71
Tperf:	0	Bperf:	0
Pump rate:	6		
Static wat:	4	Full name:	CONNERY RALPH F
Mailing ad:	1010 CEDAR		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	03/15/1958		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000374917		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AE153 **West** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000374920**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9012119
Permitno:	58144	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	19
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477349.5
Utm y:	4432430.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/10/1972	Date permi:	04/20/1972
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	04/01/1957	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	50
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	0	Full name:	BACHUS RALPH
Mailing ad:	2550 LINDEN ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	LR	Pump lic:	Not Reported
Date last :	06/28/2004		
Last actio:	Record corrected		
Site id:	CO5000000374920		

AE154 **West** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000374919**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9011926
Permitno:	54281	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	19
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477349.5
Utm y:	4432430.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	03/10/1972	Date permi:	03/28/1972
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	03/12/1952	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	48
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	0	Full name:	BEHLER O E
Mailing ad:	2525 LINDEN AVE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	LR	Pump lic:	Not Reported
Date last :	05/28/2004		
Last actio:	Record corrected		
Site id:	CO5000000374919		

AF155
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376271**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0502061B
Permitno:	245919	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS ACRES	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	8	Block:	2
County par:	Not Reported		
Parcel siz:	.9		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	1800
Coordsns d:	S	Coordsew:	100
Coordsew d:	E	Utm x:	477517.3125
Utm y:	4433182.6		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	.33		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	11/21/2002	Date permi:	11/21/2002
Date per00:	11/21/2004	Date well :	12/05/2002
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Variance No. 2002-216A.		
Elev:	0	Well depth:	60
Tperf:	40	Bperf:	60
Pump rate:	2		
Static wat:	18	Full name:	IBIDUNNI BOLA & ELECTA
Mailing ad:	2505 AGATE RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304-
Driller li:	1371	Pump lic:	Not Reported
Date last :	01/30/2003		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000376271		

AC156
NNE
1/2 - 1 Mile
Lower

FED USGS **USGS40000216774**

Org. Identifier:	USGS-CO		
Formal name:	USGS Colorado Water Science Center		
Monloc Identifier:	USGS-400317105142501		
Monloc name:	SC00107016BBC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	10190005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.0547077
Longitude:	-105.2408222	Sourcemap scale:	12500
Horiz Acc measure:	1	Horiz Acc measure units:	minutes
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	5438.00
Vert measure units:	feet	Vertacc measure val:	2
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Transition Zone		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported		
Construction date:	19240101	Welldepth:	1000
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1957-03-07	3.60	

AG157
SSW
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373013**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9010911
Permitno:	35052	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.6875
Utm y:	4431212.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	08/23/1968	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	32
Tperf:	0	Bperf:	0
Pump rate:	30		
Static wat:	7	Full name:	PENFOLD REALTY
Mailing ad:	BASEMAR CENTER		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	08/23/1968		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373013		

AG158
SSW
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373012**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0022309
Permitno:	22309	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.6875
Utm y:	4431212.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	02/14/1994	Date permi:	02/15/1994
Date per00:	05/15/1994	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	DIAMOND SHAMROCK
Mailing ad:	C/O GREYSTONE 5990 GRNWD PLZA BLVD #250		
Mailing ci:	ENGLEWOOD		
Mailing st:	CO	Mailing zi:	80111
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	02/15/1994		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373012		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AG159 **SSW** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373014**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9011900
Permitno:	53592	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.6875
Utm y:	4431212.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	03/09/1972	Date permi:	03/20/1972
Date per00:	Not Reported	Date well :	03/30/1972
Date 1st b:	03/21/1972	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	80
Tperf:	23	Bperf:	70
Pump rate:	15		
Static wat:	15	Full name:	BOULDER VOLKSWAGEN CO
Mailing ad:	3150 28TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	245	Pump lic:	Not Reported
Date last :	05/20/2004		
Last actio:	Record corrected		
Site id:	CO5000000373014		

AG160 **SSW** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373016**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	605682	Receipt:	9008646
Permitno:	6061	Permitsuf:	F
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.6875
Utm y:	4431212.1		
Loc accura:	Spotted from quarters	Permitted :	3
Use1:	COMMERCIAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	08/31/1964	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	52
Tperf:	0	Bperf:	0
Pump rate:	63		
Static wat:	10	Full name:	ORCHARD COURT DEVELOPMENT C
Mailing ad:	3627 BROADWAY		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	08/31/1964		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373016		

AG161
SSW
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373015**

Div:	1	Wd:	6
Wdid:	605567	Receipt:	9009227
Permitno:	13331	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.6875
Utm y:	4431212.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	10/05/1962	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	20		
Static wat:	7	Full name:	JOHNSON T L
Mailing ad:	675 IRIS		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/05/1962		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373015		

AG162
SSW
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373011**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0042742
Permitno:	42742	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478152.6875

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4431212		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	10/21/2003	Date permi:	10/23/2003
Date per00:	01/21/2004	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	6 WELLS apps filed and au d 2/04		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BP PRODUCTS NORTH AMERICA INC
Mailing ad:	C/O DELTA ENVIRONMENTAL 1343 S GARFIELD AVE		
Mailing ci:	LOVELAND		
Mailing st:	CO	Mailing zi:	80537-
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	02/10/2005		
Last actio:	Record corrected		
Site id:	CO5000000373011		

AH163
NNE
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377441**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0244325
Permitno:	135246	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	1360
Coordsns d:	N	Coordsew:	440
Coordsew d:	E	Utm x:	479022
Utm y:	4433833.6		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/03/1984	Date permi:	04/30/1984

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	04/09/1985
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	225
Tperf:	105	Bperf:	225
Pump rate:	9		
Static wat:	25	Full name:	WILSON PAUL E
Mailing ad:	PO BOX 2330		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80306
Driller li:	716	Pump lic:	Not Reported
Date last :	04/10/1992		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000377441		

AH164
NNE
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377440**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0218535
Permitno:	107294	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	1360
Coordsns d:	N	Coordsew:	440
Coordsew d:	E	Utm x:	479022
Utm y:	4433833.6		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	08/17/1981	Date permi:	09/23/1981
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WILSON PAUL E
Mailing ad:	PO BOX 2330		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80306

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	716	Pump lic:	Not Reported
Date last :	01/16/1992		
Last actio:	Record corrected		
Site id:	CO5000000377440		

AH165
NNE
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377443**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0907280
Permitno:	63930	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	1360
Coordsns d:	N	Coordsew:	440
Coordsew d:	E	Utm x:	479022
Utm y:	4433833.6		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Q
Use2:	OTHER	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	06/12/1972	Date permi:	09/01/1972
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	CYPHERS HARLAN
Mailing ad:	PO BOX 59		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302-
Driller li:	245	Pump lic:	Not Reported
Date last :	09/30/2004		
Last actio:	Record corrected		
Site id:	CO5000000377443		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AH166 **NNE** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000377442**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0337166
Permitno:	135246	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	1360
Coordsns d:	N	Coordsew:	440
Coordsew d:	E	Utm x:	479022
Utm y:	4433833.6		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/02/1992	Date permi:	05/19/1992
Date per00:	Not Reported	Date well :	07/01/1993
Date 1st b:	Not Reported	Date pump :	07/06/1993
Date wel00:	Not Reported		
Comment :	NO PUMP TEST		
Elev:	0	Well depth:	400
Tperf:	220	Bperf:	380
Pump rate:	50		
Static wat:	105	Full name:	WILSON PAUL E
Mailing ad:	4599 N BROADWAY		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304
Driller li:	716	Pump lic:	716
Date last :	08/16/1993		
Last actio:	Date the pump installation report is received by DWR.		
Site id:	CO5000000377442		

AH167 **NNE** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000377444**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0911555
Permitno:	80326	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	1360
Coordsns d:	N	Coordsew:	440
Coordsew d:	E	Utm x:	479022.09375
Utm y:	4433834		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	07/23/1975	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	NO SUBDIVISION INFO LISTED		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WILSON PAUL E.
Mailing ad:	2889 VALMONT		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	716	Pump lic:	Not Reported
Date last :	08/30/2012		
Last actio:	Record corrected		
Site id:	CO5000000377444		

AF168
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376282**

Div:	1	Wd:	6
Wdid:	605262	Receipt:	9013162
Permitno:	82276	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	1860
Coordsns d:	S	Coordsew:	122
Coordsew d:	E	Utm x:	477510.40625
Utm y:	4433200.6		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	04/01/1962	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	45		
Static wat:	0	Full name:	ECCLES PETER JAMES
Mailing ad:	4097 26TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	04/01/1962		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000376282		

AI169
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375672**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070104
Permitno:	104	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477349.40625

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4432835		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	02/23/1955
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	129
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	HILL CARL C JR
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	142	Pump lic:	Not Reported
Date last :	08/30/2012		
Last actio:	Record corrected		
Site id:	CO5000000375672		

AI170
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375673**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070105
Permitno:	105	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477349.40625
Utm y:	4432835		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	02/23/1955

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	50
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	HILL CARL C SR
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	142	Pump lic:	Not Reported
Date last :	08/30/2012		
Last actio:	Record corrected		
Site id:	CO5000000375673		

AI171
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375674**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008428
Permitno:	3426	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	MOORES	Filing:	Not Reported
Lot:	6	Block:	20
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477349.40625
Utm y:	4432835.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Also lots #7 - 13.		
Elev:	0	Well depth:	40
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	DEFRANCE JAMES
Mailing ad:	N 19TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	08/30/2012		
Last actio:	Record corrected		
Site id:	CO5000000375674		

AI172
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375675**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009431
Permitno:	15493	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477349.40625
Utm y:	4432835.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	04/29/1963	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	75
Tperf:	0	Bperf:	0
Pump rate:	2		
Static wat:	12	Full name:	HOOVER DICK E
Mailing ad:	4400 N 26TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	04/29/1963		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000375675		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AJ173 **ESE** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000374001**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0019016
Permitno:	19016	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	Not Reported
Q40:	Not Reported	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479963.59375
Utm y:	4431828.1		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/29/1992	Date permi:	04/29/1992
Date per00:	07/28/1992	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BOULDER CITY OF % CHEN NORTHERN
Mailing ad:	96 S ZUNI ST		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80223
Driller li:	LIC	Pump lic:	Not Reported
Date last :	04/29/1992		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374001		

AJ174 **ESE** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373998**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070400
Permitno:	400	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	Not Reported
Q40:	Not Reported	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479963.59375
Utm y:	4431828		
Loc accura:	Spotted from quarters	Permitted :	Not Reported
Use1:	Not Reported	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	10/15/1956
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	51
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	HOWE A F
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	245	Pump lic:	Not Reported
Date last :	10/15/1956		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373998		

AJ175
ESE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373997**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070358
Permitno:	358	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	Not Reported
Q40:	Not Reported	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479963.59375
Utm y:	4431828		
Loc accura:	Spotted from quarters	Permitted :	Not Reported
Use1:	Not Reported	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	06/12/1956
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	177
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	CONDA WESLEY
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	246	Pump lic:	Not Reported
Date last :	06/12/1956		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373997		

AJ176
ESE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000374000**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070421
Permitno:	421	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	Not Reported
Q40:	Not Reported	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479963.59375

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4431828		
Loc accura:	Spotted from quarters	Permitted :	Not Reported
Use1:	Not Reported	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	01/24/1957
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	25
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	HEWETT M C & L E
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	246	Pump lic:	Not Reported
Date last :	01/24/1957		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374000		

AJ177
ESE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000373999**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070402
Permitno:	402	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	Not Reported
Q40:	Not Reported	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479963.59375
Utm y:	4431828		
Loc accura:	Spotted from quarters	Permitted :	Not Reported
Use1:	Not Reported	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	10/31/1956

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	32
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BECKER CHAS J
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	245	Pump lic:	Not Reported
Date last :	10/31/1956		
Last actio:	Date the permit was issued.		
Site id:	CO5000000373999		

AK178
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375382**

Div:	1	Wd:	6
Wdid:	605228	Receipt:	9013804
Permitno:	98108	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	W9203	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	SE	Coordsns:	160
Coordsns d:	S	Coordsew:	815
Coordsew d:	E	Utm x:	477303.09375
Utm y:	4432681.6		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	04/06/1978	Date permi:	05/01/1978
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	07/01/1955	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Diligence filed in case no. 10CW131. Use identified in court case is 2 SFD and 1 acre irrigation.		
Elev:	0	Well depth:	10
Tperf:	0	Bperf:	0
Pump rate:	20		
Static wat:	0	Full name:	CURTIS MARILYN J
Mailing ad:	2350 NORWOOD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	LR	Pump lic:	Not Reported
Date last :	05/27/2010		
Last actio:	Record corrected		
Site id:	CO5000000375382		

179
WSW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373848**

Div:	1	Wd:	6
Wdid:	0	Receipt:	3653941A
Permitno:	91	Permitsuf:	GX
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	19
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	2373
Coordsns d:	S	Coordsew:	153
Coordsew d:	E	Utm x:	477504.09375
Utm y:	4431729		
Loc accura:	Spotted from section lines	Permitted :	G
Use1:	GEOTHERMAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	C
Use3:	CLOSED LOOP GEOTHERMAL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	02/10/2012
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	300
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	NEIGER DAVID
Mailing ad:	3345 FOLSOM ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	50304-
Driller li:	GT-107	Pump lic:	Not Reported
Date last :	07/31/2012		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000373848		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
180 **SSE** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000373042**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009299
Permitno:	14112	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479357.90625
Utm y:	4431217.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/07/1963	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	35
Tperf:	0	Bperf:	0
Pump rate:	4		
Static wat:	16	Full name:	ASHTON THOMAS JR
Mailing ad:	319 S BROADWAY		
Mailing ci:	DENVER 9		
Mailing st:	CO	Mailing zi:	80209
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	01/07/1963		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373042		

AD181 **NNW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000377311**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	3657777B
Permitno:	289786	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	1		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	1686
Coordsns d:	N	Coordsew:	1540
Coordsew d:	W	Utm x:	478013
Utm y:	4433732		
Loc accura:	User supplied	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	30000		
Permitte02:	SQ. FT.		
Annual app:	0		
Date appli:	11/15/2012	Date permi:	11/15/2012
Date per00:	11/15/2014	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	dry hole		
Elev:	0	Well depth:	300
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	HOSTERMAN HEATHER & HODGSON WYLEY
Mailing ad:	C/O JAMES DRILLING CO 6235 W 56TH AVE		
Mailing ci:	ARVADA		
Mailing st:	CO	Mailing zi:	80002-
Driller li:	1364	Pump lic:	Not Reported
Date last :	12/19/2012		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000377311		

AD182
NNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377315**

Div:	1	Wd:	6
Wdid:	0	Receipt:	3657777A
Permitno:	289786	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	1		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	1673
Coordsns d:	N	Coordsew:	1556
Coordsew d:	W	Utm x:	478018
Utm y:	4433736		
Loc accura:	User supplied	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	30000		
Permitte02:	SQ. FT.		
Annual app:	0		
Date appli:	11/15/2012	Date permi:	11/15/2012
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/31/1950	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	HOSTERMAN HEATHER & HODGSON WYLEY
Mailing ad:	C/O JAMES DRILLING CO 6235 W 56TH AVE		
Mailing ci:	ARVADA		
Mailing st:	CO	Mailing zi:	80002-
Driller li:	LR	Pump lic:	Not Reported
Date last :	11/15/2012		
Last actio:	Date the permit was issued.		
Site id:	CO5000000377315		

AL183
WSW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374340**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0904971
Permitno:	54022	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	19
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477348.8125

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4432024.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	03/14/1972	Date permi:	03/24/1972
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	HYNES DENNIS
Mailing ad:	2425 IRIS		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302-
Driller li:	LIC	Pump lic:	Not Reported
Date last :	05/26/2004		
Last actio:	Record corrected		
Site id:	CO5000000374340		

AL184
WSW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000374341**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0905668
Permitno:	57772	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	19
Seca:	Not Reported	Q160:	NE
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477348.8125
Utm y:	4432024.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	04/06/1972	Date permi:	04/18/1972

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	TANTTILA WALTER H
Mailing ad:	3502 22ND ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302-
Driller li:	245	Pump lic:	Not Reported
Date last :	06/24/2004		
Last actio:	Record corrected		
Site id:	CO5000000374341		

185
SSW
1/2 - 1 Mile
Lower

Shallow Water Depth:	13	**AQUIFLOW**	**10203**
Groundwater Flow:	SE		
Deep Water Depth:	16		
Date:	7/94		

AF186
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376292**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0502061A
Permitno:	245919	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS ACRES	Filing:	Not Reported
Lot:	8	Block:	2
County par:	Not Reported		
Parcel siz:	.9		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	1700
Coordsns d:	S	Coordsew:	100
Coordsew d:	E	Utm x:	477451
Utm y:	4433206.6		
Loc accura:	User supplied	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	.33		
Permitte02:	ACRES		
Annual app:	1		
Date appli:	11/21/2002	Date permi:	11/21/2002

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	20
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	IBIDUNNI BOLA & ELECTA
Mailing ad:	2505 AGATE RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304-
Driller li:	LR	Pump lic:	Not Reported
Date last :	11/21/2002		
Last actio:	Date the permit was issued.		
Site id:	CO5000000376292		

AK187
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375343**

Div:	1	Wd:	6
Wdid:	0	Receipt:	3622122M
Permitno:	5	Permitsuf:	GX
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	SE	Coordsns:	69
Coordsns d:	S	Coordsew:	941
Coordsew d:	E	Utm x:	477265
Utm y:	4432654		
Loc accura:	User supplied	Permitted :	G
Use1:	GEOTHERMAL	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	06/02/2008
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	HULLET RUSS & DIANE
Mailing ad:	3780 23RD ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304-

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	GT-10	Pump lic:	Not Reported
Date last :	04/19/2011		
Last actio:	Record corrected		
Site id:	CO5000000375343		

188
East
1/2 - 1 Mile
Lower

CO WELLS **CO5000000375178**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0369969
Permitno:	179497	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	HIBBS LOT SPLIT	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	300
Coordsns d:	N	Coordsew:	1940
Coordsew d:	E	Utm x:	480169.3125
Utm y:	4432545.1		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	05/20/1994	Date permi:	06/30/1994
Date per00:	06/30/1996	Date well :	08/11/1995
Date 1st b:	Not Reported	Date pump :	02/01/1996
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	16
Tperf:	11	Bperf:	16
Pump rate:	15		
Static wat:	6	Full name:	DARSONVAL LISA & ERIC
Mailing ad:	4281 VINCA CT		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304
Driller li:	716	Pump lic:	716
Date last :	02/05/1996		
Last actio:	Date the pump installation report is received by DWR.		
Site id:	CO5000000375178		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AM189 **North** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000377579**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0334619A
Permitno:	162961	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	BERTHOD NUPUD	Filing:	Not Reported
Lot:	1	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	1000
Coordsns d:	N	Coordsew:	900
Coordsew d:	E	Utm x:	478881.09375
Utm y:	4433943.1		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	01/28/1992	Date permi:	02/20/1992
Date per00:	Not Reported	Date well :	07/24/1973
Date 1st b:	Not Reported	Date pump :	12/06/1973
Date wel00:	Not Reported		
Comment :	SEE 162940		
Elev:	0	Well depth:	62
Tperf:	38	Bperf:	62
Pump rate:	3		
Static wat:	6	Full name:	BERTHOD CHERIE
Mailing ad:	4555 N 47TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	716	Pump lic:	716
Date last :	02/20/1992		
Last actio:	Date the permit was issued.		
Site id:	CO5000000377579		

AM190 **North** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000377580**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0334911
Permitno:	162940	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Canceled
Current st:	8	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	1000
Coordsns d:	N	Coordsew:	900
Coordsew d:	E	Utm x:	478881.09375
Utm y:	4433943.1		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	L
Use3:	ISSUED UNDER PRESUMPTION RULE	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	02/05/1992	Date permi:	02/18/1992
Date per00:	Not Reported	Date well :	07/24/1973
Date 1st b:	Not Reported	Date pump :	12/06/1973
Date wel00:	Not Reported		
Comment :	SEE 162961		
Elev:	0	Well depth:	62
Tperf:	38	Bperf:	62
Pump rate:	3		
Static wat:	6	Full name:	BERTHOD CHERIE
Mailing ad:	4555 N 47TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	EXST	Pump lic:	Not Reported
Date last :	02/20/1992		
Last actio:	Date permit was canceled		
Site id:	CO5000000377580		

AN191
NNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377385**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0105580
Permitno:	70139	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	6		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	1500
Coordsns d:	N	Coordsew:	1500
Coordsew d:	W	Utm x:	478000.40625
Utm y:	4433788.5		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	08/09/1979	Date permi:	08/27/1979
Date per00:	Not Reported	Date well :	05/21/1979
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	205
Tperf:	15	Bperf:	205
Pump rate:	3		
Static wat:	30	Full name:	PEASE JACK S
Mailing ad:	3320 13TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	716	Pump lic:	Not Reported
Date last :	11/15/2012		
Last actio:	Record corrected		
Site id:	CO5000000377385		

AN192
NNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377386**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9012702
Permitno:	70139	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	6		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	1500
Coordsns d:	N	Coordsew:	1500
Coordsew d:	W	Utm x:	478000.40625

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4433788.5		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	acres		
Annual app:	0		
Date appli:	07/20/1973	Date permi:	07/20/1973
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	07/01/1952	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	95
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	0	Full name:	PEASE JACK S
Mailing ad:	3320 13TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	LR	Pump lic:	Not Reported
Date last :	11/15/2012		
Last actio:	Record corrected		
Site id:	CO5000000377386		

193
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000216316**

Org. Identifier:	USGS-CO		
Formal name:	USGS Colorado Water Science Center		
Monloc Identifier:	USGS-400209105140701		
Monloc name:	SC00107021BDA1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	10190005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.0358188
Longitude:	-105.235822	Sourcemap scale:	12500
Horiz Acc measure:	1	Horiz Acc measure units:	minutes
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	5560.00
Vert measure units:	feet	Vertacc measure val:	2
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Laramie Formation		
Aquifer type:	Not Reported		
Construction date:	19570101	Welldepth:	150
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1957-04-19	79.80	

AO194
NW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377148**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0200241
Permitno:	112701	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477746
Utm y:	4433641.6		
Loc accura:	Spotted from quarters	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	12/03/1979	Date permi:	02/04/1980
Date per00:	Not Reported	Date well :	03/06/1980
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	120
Tperf:	0	Bperf:	0
Pump rate:	8		
Static wat:	0	Full name:	FIRST CHURCH OF THE NAZARENE
Mailing ad:	Not Reported		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	343	Pump lic:	Not Reported
Date last :	06/18/2003		
Last actio:	Record corrected		
Site id:	CO5000000377148		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AO195 **NW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000377149**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008785
Permitno:	8009	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477746
Utm y:	4433641.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/20/1961	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	40		
Static wat:	10	Full name:	COWGILL DAVID
Mailing ad:	2127 MESA DR		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	01/20/1961		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000377149		

196 **WSW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373959**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9012778
Permitno:	72090	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	19
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	2640
Coordsns d:	S	Coordsew:	640
Coordsew d:	E	Utm x:	477355.6875
Utm y:	4431812.5		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	10/24/1973
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	04/30/1951	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	20
Tperf:	0	Bperf:	0
Pump rate:	25		
Static wat:	0	Full name:	DENTON ALVIN N & FERNE
Mailing ad:	2400 IRIS		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	LR	Pump lic:	Not Reported
Date last :	02/22/2005		
Last actio:	Record corrected		
Site id:	CO5000000373959		

AP197
ENE
1/2 - 1 Mile
Lower

FED USGS **USGS40000216699**

Org. Identifier:	USGS-CO		
Formal name:	USGS Colorado Water Science Center		
Monloc Identifier:	USGS-400306105140300		
Monloc name:	SB00107016ACCC SITE C45		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	10190005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.0516521
Longitude:	-105.2347109	Sourcemap scale:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Horiz Acc measure:	1	Horiz Acc measure units:	minutes
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Pierre Shale		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

AP198
ENE
1/2 - 1 Mile
Lower

FED USGS **USGS40000216700**

Org. Identifier:	USGS-CO		
Formal name:	USGS Colorado Water Science Center		
Monloc Identifier:	USGS-400306105140301		
Monloc name:	SB00107016ACC		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	10190005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.0516521
Longitude:	-105.2347109	Sourcemap scale:	Not Reported
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	5280.00
Vert measure units:	feet	Vertacc measure val:	50
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Pierre Shale		
Aquifer type:	Not Reported		
Construction date:	19630101	Welldepth:	13
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1963-04-01	7.00	

199
ESE
1/2 - 1 Mile
Lower

CO WELLS **CO5000000374383**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0022101
Permitno:	22101	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Issued; Completion Status Unknown
Current st:	5	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	21
Seca:	Not Reported	Q160:	NE
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	480160.8125
Utm y:	4432028.6		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	12/30/1993	Date permi:	01/07/1994
Date per00:	04/07/1994	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BOULDER CITY OF DEPT OF PUBLIC WORK
Mailing ad:	C/O APPLIED ECOSYSTEMS IN 1415 WEWATTA ST #101		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80202
Driller li:	AUTH	Pump lic:	Not Reported
Date last :	01/07/1994		
Last actio:	Date the permit was issued.		
Site id:	CO5000000374383		

AQ200
North
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377663**

Div:	1	Wd:	2
Wdid:	0	Receipt:	3648829B
Permitno:	285032	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Permit Extended
Current st:	6	Well name:	WELL NO. 1 EAST
Case no:	W2484	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	56		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	772
Coordsns d:	N	Coordsew:	2026
Coordsew d:	E	Utm x:	478537.59375
Utm y:	4434012		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	02/03/2011	Date permi:	02/08/2011
Date per00:	02/08/2014	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	construction variance 2012-023A was approved 4/2/12 ETP		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	IDLE ACRE LAND COMPANY
Mailing ad:	C/O FINNIUS INGALLS 4400 PEACH CT		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	LIC	Pump lic:	Not Reported
Date last :	02/08/2011		
Last actio:	Date the permit was issued.		
Site id:	CO5000000377663		

AQ201
North
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377664**

Div:	1	Wd:	5
Wdid:	0	Receipt:	3648829A
Permitno:	285032	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	WELL # 1 EAST
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	POOR NUPUD	Filing:	Not Reported
Lot:	1	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	56		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	772
Coordsns d:	N	Coordsew:	2026
Coordsew d:	E	Utm x:	478537.59375

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4434012		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	9
Use2:	STOCK	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	01/20/2011	Date permi:	02/08/2011
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	09/30/1910	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	5360	Well depth:	11
Tperf:	0	Bperf:	0
Pump rate:	10		
Static wat:	0	Full name:	IDLE ACRE LAND COMPANY
Mailing ad:	C/O FINNIUS INGALLS 4400 PEACH COURT		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	LR	Pump lic:	Not Reported
Date last :	02/08/2011		
Last actio:	Date the permit was issued.		
Site id:	CO5000000377664		

AR202
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376234**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0318220
Permitno:	158778	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS ACRES	Filing:	Not Reported
Lot:	2	Block:	3
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	1700
Coordsns d:	S	Coordsew:	750
Coordsew d:	E	Utm x:	477319.40625
Utm y:	4433151.1		
Loc accura:	Spotted from section lines	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	1		
Date appli:	09/25/1990	Date permi:	11/14/1990

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/31/1956	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	23
Tperf:	0	Bperf:	0
Pump rate:	6.68		
Static wat:	0	Full name:	SAVAGE RICHARD SCOTT & PHYLLIS
Mailing ad:	58 ARROWHEAD ROAD		
Mailing ci:	BROOKFIELD		
Mailing st:	CT	Mailing zi:	06804-
Driller li:	LR	Pump lic:	Not Reported
Date last :	03/07/2013		
Last actio:	Change of Ownership		
Site id:	CO5000000376234		

AQ203
North
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377675**

Div:	1	Wd:	5
Wdid:	0	Receipt:	3648830A
Permitno:	285033	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	WELL # 2 WEST
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	POOR NUPUD	Filing:	Not Reported
Lot:	1	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	738
Coordsns d:	N	Coordsew:	2139
Coordsew d:	E	Utm x:	478503.09375
Utm y:	4434022		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	9
Use2:	STOCK	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	01/20/2011	Date permi:	02/03/2011
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	09/30/1918	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	5365	Well depth:	12
Tperf:	0	Bperf:	0
Pump rate:	4.4		
Static wat:	0	Full name:	IDLE ACRE LAND COMPANY
Mailing ad:	4400 PEACH COURT		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	LR	Pump lic:	Not Reported
Date last :	02/03/2011		
Last actio:	Date the permit was issued.		
Site id:	CO5000000377675		

AR204
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376368**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008574
Permitno:	5303	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	MOORES	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347
Utm y:	4433237.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	03/12/1960	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	25
Tperf:	0	Bperf:	0
Pump rate:	5		
Static wat:	12	Full name:	WHITE BROS
Mailing ad:	Not Reported		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000376368		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AR205 **WNW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000376369**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008773
Permitno:	7868	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS	Filing:	Not Reported
Lot:	2	Block:	2
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347
Utm y:	4433237.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/31/1961	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	40
Tperf:	0	Bperf:	0
Pump rate:	10		
Static wat:	9	Full name:	AFFOLTER RICHARD JR
Mailing ad:	2155 TOPAZ DR		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000376369		

AR206 **WNW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000376367**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008346
Permitno:	2446	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347
Utm y:	4433237.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	11/01/1958	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	33
Tperf:	0	Bperf:	0
Pump rate:	40		
Static wat:	5	Full name:	CLARK EVERETT
Mailing ad:	2290 TOPAZ DR		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000376367		

AR207
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376365**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0901113
Permitno:	15269	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Canceled
Current st:	8	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS ACRES	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	14	Block:	4
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347
Utm y:	4433237.6		
Loc accura:	Spotted from quarters	Permitted :	H
Use1:	HOUSEHOLD USE ONLY	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	05/15/1963	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BARNICA LYLE
Mailing ad:	RT 2 BOX 174		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	Not Reported
Driller li:	LIC	Pump lic:	Not Reported
Date last :	01/30/2001		
Last actio:	Record corrected		
Site id:	CO5000000376365		

AR208
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376366**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008345
Permitno:	2445	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4433237.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	11/03/1958	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	30		
Static wat:	5	Full name:	CLARK EVERETT
Mailing ad:	2290 TOPAZ DR		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000376366		

AR209
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376373**

Div:	1	Wd:	6
Wdid:	605263	Receipt:	9008772
Permitno:	7867	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS	Filing:	Not Reported
Lot:	1	Block:	2
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347
Utm y:	4433237.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/27/1961	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	35
Tperf:	0	Bperf:	0
Pump rate:	12		
Static wat:	9	Full name:	AFFOLTER RICHARD JR
Mailing ad:	2155 TOPAZ DR		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000376373		

AR210
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376374**

Div:	1	Wd:	6
Wdid:	605493	Receipt:	9009183
Permitno:	12983	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347
Utm y:	4433237.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	09/10/1962	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	32
Tperf:	0	Bperf:	0
Pump rate:	60		
Static wat:	7	Full name:	KLUNDT ERVIN H
Mailing ad:	RT 2 BOX 265 A		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/10/1962		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000376374		

AR211
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376372**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009232
Permitno:	13339	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS ACRES	Filing:	Not Reported
Lot:	5	Block:	6
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347
Utm y:	4433237.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	10/19/1962	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	40
Tperf:	0	Bperf:	0
Pump rate:	4		
Static wat:	6	Full name:	BOWRON BOB BUILDERS
Mailing ad:	3400 N 19TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/07/2012		
Last actio:	Record corrected		
Site id:	CO5000000376372		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AR212 **WNW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000376370**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008851
Permitno:	9120	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS ACRES	Filing:	Not Reported
Lot:	3	Block:	3
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347
Utm y:	4433237.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	07/05/1961	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	30		
Static wat:	9	Full name:	HERRING L A
Mailing ad:	3056 4TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000376370		

AR213 **WNW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000376371**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009197
Permitno:	13115	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347
Utm y:	4433237.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	10/01/1962	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	24
Tperf:	0	Bperf:	0
Pump rate:	40		
Static wat:	7	Full name:	PETERSON EMANUEL
Mailing ad:	2637 VALMONT RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	10/01/1962		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000376371		

AR214
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376375**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070067
Permitno:	67	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347.09375
Utm y:	4433238		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	08/24/1945
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	45
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WESTHOFF EDWIN
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	246	Pump lic:	Not Reported
Date last :	08/30/2012		
Last actio:	Record corrected		
Site id:	CO5000000376375		

AR215
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376376**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070100
Permitno:	100	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347.09375

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4433238		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	03/21/1955
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	40
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BRUNU SAMUEL C
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	228	Pump lic:	Not Reported
Date last :	08/30/2012		
Last actio:	Record corrected		
Site id:	CO5000000376376		

AR216
WNW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000376377**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070459
Permitno:	459	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	GITHENS ACRES	Filing:	Not Reported
Lot:	5	Block:	6
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	18
Seca:	Not Reported	Q160:	SE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477347.09375
Utm y:	4433238		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	05/01/1957

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	31
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	CONNER D WENDALL
Mailing ad:	2300 EMERALD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	Not Reported
Driller li:	246	Pump lic:	Not Reported
Date last :	09/07/2012		
Last actio:	Record corrected		
Site id:	CO5000000376377		

217
West
1/2 - 1 Mile
Higher

CO WELLS **CO5000000375258**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9012880
Permitno:	74847	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	19
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	100
Coordsns d:	N	Coordsew:	1310
Coordsew d:	E	Utm x:	477152.59375
Utm y:	4432601.5		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	.5		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	05/10/1974	Date permi:	06/12/1974
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/24/1952	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	40
Tperf:	0	Bperf:	0
Pump rate:	40		
Static wat:	0	Full name:	KEAN JAMES H & REBECCA L
Mailing ad:	2310 LINDEN AVE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80304-

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	LR	Pump lic:	Not Reported
Date last :	04/30/2008		
Last actio:	Change of Ownership		
Site id:	CO5000000375258		

218
SSW
1/2 - 1 Mile
Lower

CO WELLS **CO5000000372600**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0534460
Permitno:	261643	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	MW-8
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	29
Seca:	Not Reported	Q160:	NW
Q40:	NE	Coordsns:	155
Coordsns d:	N	Coordsew:	2595
Coordsew d:	W	Utm x:	478341
Utm y:	4430962		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	01/28/2005	Date permi:	02/03/2005
Date per00:	Not Reported	Date well :	09/23/2004
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	25
Tperf:	10	Bperf:	25
Pump rate:	0		
Static wat:	0	Full name:	DIAMOND SHAMROCK REFINING & MARKETING CO
Mailing ad:	5590 B HA VANA ST		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80239-
Driller li:	EXST	Pump lic:	Not Reported
Date last :	02/03/2005		
Last actio:	Date the permit was issued.		
Site id:	CO5000000372600		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AS219 **NE** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000377175**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009369
Permitno:	14776	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	16
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479757.5
Utm y:	4433645.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/16/1963	Date permi:	04/16/1963
Date per00:	Not Reported	Date well :	04/18/1963
Date 1st b:	04/18/1963	Date pump :	04/18/1963
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	12
Tperf:	8	Bperf:	12
Pump rate:	60		
Static wat:	7	Full name:	NISSLEY CLAUDIA & ELIZABETH
Mailing ad:	4309 N 51ST ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	172	Pump lic:	172
Date last :	09/10/1997		
Last actio:	Change of Ownership		
Site id:	CO5000000377175		

AS220 **NE** **1/2 - 1 Mile** **Lower**	**CO WELLS**	**CO5000000377176**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009370
Permitno:	14777	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	16
Seca:	Not Reported	Q160:	NW
Q40:	SE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	479757.5
Utm y:	4433645.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/16/1963	Date permi:	04/16/1963
Date per00:	Not Reported	Date well :	04/18/1963
Date 1st b:	04/18/1963	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	13
Tperf:	8	Bperf:	12
Pump rate:	65		
Static wat:	7	Full name:	LOUSBERG CONST CO
Mailing ad:	RT 2 BOX 305A		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	172	Pump lic:	Not Reported
Date last :	08/05/2009		
Last actio:	Record corrected		
Site id:	CO5000000377176		

AQ221
North
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377766**

Div:	1	Wd:	5
Wdid:	0	Receipt:	0906312
Permitno:	59557	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478549.8125
Utm y:	4434046.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	04/20/1972	Date permi:	05/02/1972
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	POOR MARTHA J
Mailing ad:	3095 JAY RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	245	Pump lic:	Not Reported
Date last :	07/19/2004		
Last actio:	Record corrected		
Site id:	CO5000000377766		

AQ222
North
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377767**

Div:	1	Wd:	5
Wdid:	0	Receipt:	0906313
Permitno:	59559	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478549.8125

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4434046.1		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	04/20/1972	Date permi:	05/02/1972
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	NEWMAN CHERYL
Mailing ad:	3095 JAY RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	245	Pump lic:	Not Reported
Date last :	07/19/2004		
Last actio:	Record corrected		
Site id:	CO5000000377767		

AQ223
North
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377768**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070319
Permitno:	319	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478549.90625
Utm y:	4434046.5		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	09/23/1955

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	WICKMAN OLIVER W
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	16	Pump lic:	Not Reported
Date last :	08/30/2012		
Last actio:	Record corrected		
Site id:	CO5000000377768		

224
SSW
1/2 - 1 Mile
Lower

CO WELLS **CO5000000372774**

Div:	1	Wd:	6
Wdid:	0	Receipt:	0000382A
Permitno:	1995180	Permitsuf:	AB
Permitrpl:	Not Reported	Status des:	Well Abandoned
Current st:	11	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	200
Coordsns d:	S	Coordsew:	1500
Coordsew d:	W	Utm x:	478007
Utm y:	4431068.6		
Loc accura:	Spotted from section lines	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	09/08/1995		
Comment :	2 wells		
Elev:	0	Well depth:	20
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	EXXON COMPANY USA
Mailing ad:	PO BOX 2180		
Mailing ci:	HOUSTON		
Mailing st:	TX	Mailing zi:	77252-2180

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	11/21/1995		
Last actio:	Date abandonment report received.		
Site id:	CO5000000372774		

AQ225
North
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377764**

Div:	1	Wd:	2
Wdid:	0	Receipt:	3648830B
Permitno:	285033	Permitsuf:	Not Reported
Permitrpl:	A	Status des:	Well Constructed
Current st:	9	Well name:	WELL NO. 2 WEST
Case no:	W2484	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	56		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NW	Coordsns:	660
Coordsns d:	N	Coordsew:	2201
Coordsew d:	E	Utm x:	478484
Utm y:	4434046		
Loc accura:	Spotted from section lines	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	1		
Permitte02:	ACRES		
Annual app:	0		
Date appli:	02/03/2011	Date permi:	02/08/2011
Date per00:	02/08/2013	Date well :	04/10/2012
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Construction Variance 2012-024A was approved 4/2/12 ETP		
Elev:	0	Well depth:	17
Tperf:	13	Bperf:	17
Pump rate:	5		
Static wat:	5	Full name:	IDLE ACRE LAND COMPANY
Mailing ad:	C/O FINNIUS INGALLS 4400 PEACH CT		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301-
Driller li:	1206	Pump lic:	Not Reported
Date last :	02/06/2013		
Last actio:	Date the Well Construction and Test Report was received at DWR.		
Site id:	CO5000000377764		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AT226 **North** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000377772**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9010303
Permitno:	27332	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478953.1875
Utm y:	4434047.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	05/11/1966	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	73
Tperf:	0	Bperf:	0
Pump rate:	12		
Static wat:	11	Full name:	SCHONS NICHOLAS A
Mailing ad:	1135 NORWOOD AVE		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	05/11/1966		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000377772		

AT227 **North** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000377771**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	0022517
Permitno:	22517	Permitsuf:	MH
Permitrpl:	Not Reported	Status des:	Permit Expired
Current st:	7	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	BETHOD NUPOD	Filing:	Not Reported
Lot:	3	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478953.1875
Utm y:	4434047.6		
Loc accura:	Spotted from quarters	Permitted :	Q
Use1:	OTHER	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	M
Use3:	MONITORING WELL	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	03/21/1994	Date permi:	03/22/1994
Date per00:	06/22/1994	Date well :	Not Reported
Date 1st b:	Not Reported	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	0
Tperf:	0	Bperf:	0
Pump rate:	0		
Static wat:	0	Full name:	BERTHOD CHERIE
Mailing ad:	C/O JAMES DRILLING 6235 W 56TH AVE		
Mailing ci:	ARVADA		
Mailing st:	CO	Mailing zi:	80002-
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	04/15/2004		
Last actio:	Record corrected		
Site id:	CO5000000377771		

AT228
North
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377774**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9012174
Permitno:	59552	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Permit Canceled
Current st:	8	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478953.1875
Utm y:	4434047.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/20/1972	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/06/1973	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	62
Tperf:	0	Bperf:	0
Pump rate:	3		
Static wat:	6	Full name:	POOR GEORGE W
Mailing ad:	3095 JAY RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80301
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	02/18/1992		
Last actio:	Date permit was canceled		
Site id:	CO5000000377774		

AT229
North
1/2 - 1 Mile
Higher

CO WELLS **CO5000000377773**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9011487
Permitno:	45558	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	WITTEMEYER	Filing:	Not Reported
Lot:	67	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	17
Seca:	Not Reported	Q160:	NE
Q40:	NE	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	478953.1875

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Utm y:	4434047.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	04/21/1971	Date permi:	04/21/1971
Date per00:	Not Reported	Date well :	05/22/1971
Date 1st b:	05/22/1971	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	125
Tperf:	24	Bperf:	125
Pump rate:	6		
Static wat:	15	Full name:	BATTANY PHIL
Mailing ad:	3150 25TH ST		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	245	Pump lic:	Not Reported
Date last :	10/03/2011		
Last actio:	Record corrected		
Site id:	CO5000000377773		

AU230
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373002**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008357
Permitno:	2570	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477750.90625
Utm y:	4431209.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	12/10/1958	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	28
Tperf:	0	Bperf:	0
Pump rate:	5		
Static wat:	12	Full name:	ELLISON C
Mailing ad:	RT 2 BX 361 A		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	12/10/1958		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373002		

AU231
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373001**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9008299
Permitno:	1741	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477750.90625
Utm y:	4431209.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	07/28/1958	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	36
Tperf:	0	Bperf:	0
Pump rate:	2		
Static wat:	5	Full name:	SMITH BARBARA & DUANE
Mailing ad:	RT 2 BX 205 B		
Mailing ci:	LONGMONT		
Mailing st:	CO	Mailing zi:	80501

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	07/28/1958		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373001		

AU232
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373003**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9009900
Permitno:	21589	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477750.90625
Utm y:	4431209.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	09/12/1964	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	30
Tperf:	0	Bperf:	0
Pump rate:	10		
Static wat:	9	Full name:	HARRIS VERN
Mailing ad:	2701 VALMONT RD		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80302
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	09/12/1964		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373003		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
AU233 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373005**

Div:	1	Wd:	6
Wdid:	0	Receipt:	9011180
Permitno:	40171	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477750.90625
Utm y:	4431209.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/26/1970	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	44
Tperf:	0	Bperf:	0
Pump rate:	15		
Static wat:	6	Full name:	ELLISON CLAUDE
Mailing ad:	3005 28TH STREET		
Mailing ci:	BOULDER		
Mailing st:	CO	Mailing zi:	80303
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	01/26/1970		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373005		

AU234 **SW** **1/2 - 1 Mile** **Higher**	**CO WELLS**	**CO5000000373004**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Div:	1	Wd:	6
Wdid:	0	Receipt:	9010756
Permitno:	32720	Permitsuf:	Not Reported
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported
Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477750.90625
Utm y:	4431209.6		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	acres		
Annual app:	0		
Date appli:	Not Reported	Date permi:	Not Reported
Date per00:	Not Reported	Date well :	Not Reported
Date 1st b:	01/29/1968	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	35
Tperf:	0	Bperf:	0
Pump rate:	1		
Static wat:	6	Full name:	PARK OIL COMPANY
Mailing ad:	438 FEDERAL		
Mailing ci:	DENVER		
Mailing st:	CO	Mailing zi:	80202
Driller li:	Not Reported	Pump lic:	Not Reported
Date last :	01/29/1968		
Last actio:	Date of first beneficial use.		
Site id:	CO5000000373004		

AU235
SW
1/2 - 1 Mile
Higher

CO WELLS **CO5000000373000**

Div:	1	Wd:	6
Wdid:	0	Receipt:	C070392
Permitno:	392	Permitsuf:	WCB
Permitrpl:	Not Reported	Status des:	Well Constructed
Current st:	9	Well name:	Not Reported
Case no:	Not Reported	Ogcc id:	Not Reported
City:	7		
County:	BOULDER		
Management:	0	Manageme00:	Not Reported
Designated:	0	Designat00:	Not Reported
Subdivisio:	Not Reported	Filing:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lot:	Not Reported	Block:	Not Reported
County par:	Not Reported		
Parcel siz:	0		
Pm:	S	Ts:	1
Tdir:	N	Rng:	70
Rdir:	W	Sec:	20
Seca:	Not Reported	Q160:	SW
Q40:	SW	Coordsns:	0
Coordsns d:	Not Reported	Coordsew:	0
Coordsew d:	Not Reported	Utm x:	477750.90625
Utm y:	4431209.5		
Loc accura:	Spotted from quarters	Permitted :	8
Use1:	DOMESTIC	Permitte00:	Not Reported
Use2:	Not Reported	Special us:	Not Reported
Use3:	Not Reported	Aquifer1 n:	ALL UNNAMED AQUIFERS
Aquifer2 n:	Not Reported		
Permitte01:	0		
Permitte02:	Not Reported		
Annual app:	0		
Date appli:	09/05/1956	Date permi:	09/05/1956
Date per00:	Not Reported	Date well :	08/23/1956
Date 1st b:	08/23/1956	Date pump :	Not Reported
Date wel00:	Not Reported		
Comment :	Not Reported		
Elev:	0	Well depth:	23
Tperf:	10	Bperf:	23
Pump rate:	0		
Static wat:	3	Full name:	CROSBY CHARLES
Mailing ad:	Not Reported		
Mailing ci:	Not Reported		
Mailing st:	Not Reported	Mailing zi:	Not Reported
Driller li:	2	Pump lic:	Not Reported
Date last :	10/06/2010		
Last actio:	Record corrected		
Site id:	CO5000000373000		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance	Database	EDR ID Number

A1
East
1/4 - 1/2 Mile

OIL_GAS **COOG90000051501**

Link fld:	01340027	Attrib 1:	05-013-40027
Attrib 2:	UNKNOWN		
Attrib 3:	1-21X MCKENZIE		
Symbol:	LO_XX	Sdf key:	01340027&TYPE=WELL
Facility i:	287738		
Facility type:	WELL	Facility Status:	Dry and abandoned
Operator n:	1		
Well num:	1-21X	Well name:	MCKENZIE
Field code:	7465		
Dist n s:	145		
Dir n s:	N		
Dist e w:	850		
Dir e w:	W	Qtrqtr:	NWNW
Sec:	21	Twp:	1N
Range:	70W	Meridian:	6
Latn:	40.043367		
Longn:	0		
Ground ele:	5295		
Utm x:	479422		
Utm y:	4432598		
Locqual:	PLANNED Footage	Field name:	BOULDER
Name 1:	UNKNOWN		
Api seq nu:	40027		
Api county:	013		
Locationid:	379956		
Site id:	COOG90000051501		

A2
East
1/4 - 1/2 Mile

OIL_GAS **COOG90000051499**

Link fld:	01340002	Attrib 1:	05-013-40002
Attrib 2:	MCKENZIE JUNCTION MA LLC		
Attrib 3:	1-21 MCKENZIE		
Symbol:	LO_XX	Sdf key:	01340002&TYPE=WELL
Facility i:	207005		
Facility type:	WELL	Facility Status:	Plugged and Abandoned
Operator n:	10188		
Well num:	1-21	Well name:	MCKENZIE
Field code:	7465		
Dist n s:	0		
Dir n s:	Not Reported		
Dist e w:	0		
Dir e w:	Not Reported	Qtrqtr:	NWNW
Sec:	21	Twp:	1N
Range:	70W	Meridian:	6
Latn:	40.04334		
Longn:	0		
Ground ele:	5295		
Utm x:	479426		
Utm y:	4432595		
Locqual:	ACTUAL LatLong	Field name:	BOULDER

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Name 1:	MCKENZIE JUNCTION MA LLC
Api seq nu:	40002
Api county:	013
Locationid:	379956
Site id:	COOG90000051499

3
WSW **OIL_GAS** **COOG90000051280**
1/2 - 1 Mile

Link fld:	01360011	Attrib 1:	05-013-60011
Attrib 2:	REYNOLDS* NOEL		
Attrib 3:	1 THOMAS		
Symbol:	LO_XX	Sdf key:	01360011&TYPE=WELL
Facility i:	207025		
Facility type:	WELL	Facility Status:	Dry and abandoned
Operator n:	74500		
Well num:	1	Well name:	THOMAS
Field code:	7465		
Dist n s:	1320		
Dir n s:	N		
Dist e w:	1320		
Dir e w:	W	Qtrqtr:	CNW
Sec:	20	Twp:	1N
Range:	70W	Meridian:	6
Latn:	40.040046		
Longn:	0		
Ground ele:	0		
Utm x:	477950		
Utm y:	4432234		
Locqual:	Planned Footage	Field name:	BOULDER
Name 1:	REYNOLDS* NOEL		
Api seq nu:	60011		
Api county:	013		
Locationid:	379964		
Site id:	COOG90000051280		

4
ESE **OIL_GAS** **COOG90000051414**
1/2 - 1 Mile

Link fld:	01305013	Attrib 1:	05-013-05013
Attrib 2:	BAKER OIL		
Attrib 3:	2 FEE		
Symbol:	LO_XX	Sdf key:	01305013&TYPE=WELL
Facility i:	206432		
Facility type:	WELL	Facility Status:	Dry and abandoned
Operator n:	5871		
Well num:	2	Well name:	FEE
Field code:	7465		
Dist n s:	660		
Dir n s:	N		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dist e w:	1980		
Dir e w:	W	Qtrqtr:	NENW
Sec:	21	Twp:	1N
Range:	70W	Meridian:	6
Latn:	40.041936		
Longn:	0		
Ground ele:	0		
Utm x:	479763		
Utm y:	4432439		
Locqual:	Planned Footage	Field name:	BOULDER
Name 1:	BAKER OIL		
Api seq nu:	05013		
Api county:	013		
Locationid:	379623		
Site id:	COOG90000051414		

5
South **OIL_GAS** **COOG90000050855**
1/2 - 1 Mile

Link fld:	01305010	Attrib 1:	05-013-05010
Attrib 2:	OLD OPERATORS - STATUS UNKNOWN		
Attrib 3:	1 FOSTE		
Symbol:	LO_XX	Sdf key:	01305010&TYPE=WELL
Facility i:	206429		
Facility type:	WELL	Facility Status:	Dry and abandoned
Operator n:	99999		
Well num:	1	Well name:	FOSTE
Field code:	7465		
Dist n s:	1320		
Dir n s:	S		
Dist e w:	1320		
Dir e w:	E	Qtrqtr:	CSE
Sec:	20	Twp:	1N
Range:	70W	Meridian:	6
Latn:	40.032676		
Longn:	0		
Ground ele:	0		
Utm x:	478753		
Utm y:	4431414		
Locqual:	Planned Footage	Field name:	BOULDER
Name 1:	OLD OPERATORS - STATUS UNKNOWN		
Api seq nu:	05010		
Api county:	013		
Locationid:	379620		
Site id:	COOG90000050855		

6
North **OIL_GAS** **COOG90000052241**
1/2 - 1 Mile

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Link fld:	01340026	Attrib 1:	05-013-40026
Attrib 2:	COLORADO OIL & GAS CONSERVATION COMMISSION		
Attrib 3:	1 HAYDEN		
Symbol:	LO_XX	Sdf key:	01340026&TYPE=WELL
Facility i:	260213		
Facility type:	WELL	Facility Status:	Plugged and Abandoned
Operator n:	5		
Well num:	1	Well name:	HAYDEN
Field code:	7465		
Dist n s:	660		
Dir n s:	N		
Dist e w:	660		
Dir e w:	E	Qtrqtr:	NENE
Sec:	17	Twp:	1N
Range:	70W	Meridian:	6
Latn:	40.056406		
Longn:	0		
Ground ele:	5320		
Utm x:	478950		
Utm y:	4434047		
Locqual:	Planned Footage	Field name:	BOULDER
Name 1:	COLORADO OIL & GAS CONSERVATION COMMISSION		
Api seq nu:	40026		
Api county:	013		
Locationid:	379955		
Site id:	COOG90000052241		

7
North
1/2 - 1 Mile

OIL_GAS **COOG90000052338**

Link fld:	01340028	Attrib 1:	05-013-40028
Attrib 2:	BERTHOD* CHERIE		
Attrib 3:	1 BOULDER MINING		
Symbol:	LO_XX	Sdf key:	01340028&TYPE=WELL
Facility i:	419174		
Facility type:	WELL	Facility Status:	Domestic Well
Operator n:	10355		
Well num:	1	Well name:	BOULDER MINING
Field code:	7465		
Dist n s:	0		
Dir n s:	Not Reported		
Dist e w:	0		
Dir e w:	Not Reported	Qtrqtr:	NENE
Sec:	17	Twp:	1N
Range:	70W	Meridian:	6
Latn:	40.057444		
Longn:	0		
Ground ele:	0		
Utm x:	478845		
Utm y:	4434162		
Locqual:	ACTUAL LatLong	Field name:	BOULDER

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Name 1:	BERTHOD* CHERIE
Api seq nu:	40028
Api county:	013
Locationid:	419206
Site id:	COOG90000052338

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CO Radon

Radon Test Results

Zip	Total Sites	Avg	% sites<=4 pCi/L	% sites>4&<10 pCi/L	% sites>=10&<20 pCi/L	% sites>20 pCi/L
80301	6	6.50	66.67	16.67	0.00	16.67

Federal EPA Radon Zone for BOULDER County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 80301

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	3.000 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	7.200 pCi/L	60%	20%	20%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Riparian Vegetation Data
Source: Division of Wildlife
Telephone: 970-416-3360

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

RADON

State Database: CO Radon
Source: Department of Public Health & Environment
Telephone: 303-692-3090
Radon Study in Colorado

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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Palo Park
4525 Palo Parkway
Boulder, CO 80301

Inquiry Number: 4221742.6s
March 4, 2015

EDR Vapor Encroachment Screen

Prepared using EDR's Vapor Encroachment Worksheet

EDR® Environmental Data Resources Inc

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with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600-10).

STANDARD ENVIRONMENTAL RECORDS	Maximum Search Distance*	Summary		
		property	1/10	1/10 - 1/3
Federal NPL	0.333	0	0	0
Federal CERCLIS	0.333	0	0	0
Federal RCRA CORRACTS facilities list	0.333	0	0	0
Federal RCRA TSD facilities list	0.333	0	0	0
Federal RCRA generators list	property	0	-	-
Federal institutional controls / engineering controls registries	0.333	0	0	0
Federal ERNS list	property	0	-	-
State and tribal - equivalent NPL	not searched	-	-	-
State and tribal - equivalent CERCLIS	0.333	0	0	0
State and tribal landfill / solid waste disposal	0.333	0	0	0
State and tribal leaking storage tank lists	0.333	0	0	0
State and tribal registered storage tank lists	property	0	-	-
State and tribal institutional control / engineering control registries	property	0	-	-
State and tribal voluntary cleanup sites	0.333	0	0	0
State and tribal Brownfields sites	not searched	-	-	-
Other Standard Environmental Records	0.333	0	0	0

HISTORICAL USE RECORDS				
Former manufactured Gas Plants	0.333	0	0	0
Historical Gas Stations	0.25	0	0	0
Historical Dry Cleaners	0.25	0	0	0
Exclusive Recovered Govt. Archives	property	0	-	-

*Each category may include several separate databases, each having a different search distance. For each category, the table reports the maximum search distance applied. See the section 'Record Sources and Currency' for information on individual databases.

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

PALO PARK
4525 PALO PARKWAY
BOULDER, CO 80301

COORDINATES

Latitude (North):	40.0442 - 40° 2′ 39.12323″
Longitude (West):	105.2496 - 105° 14′ 58.571777″
Elevation:	5317 ft. above sea level

EXECUTIVE SUMMARY

PHYSICAL SETTING INFORMATION

Flood Zone: Available

NWI Wetlands: Available

AQUIFLOW®

Search Radius: 0.333 Mile.

No Aquiflow sites reported.

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Nederland

Soil Surface Texture: very cobbly sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	very cobbly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 42.34 Min: 4.23	Max: 7.8 Min: 6.1

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	20 inches	very cobbly sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14.11 Min: 1.41	Max: 7.3 Min: 6.1
3	20 inches	59 inches	very cobbly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 42.34 Min: 4.23	Max: 7.8 Min: 6.1

Soil Map ID: 2

Soil Component Name: Calkins

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 76 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 4.23	Max: 7.3 Min: 6.6

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	14 inches	59 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 7.8 Min: 6.6

Soil Map ID: 3

Soil Component Name: Valmont

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 7.3 Min: 6.6
2	7 inches	24 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.41 Min: 0.42	Max: 8.4 Min: 6.6

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	24 inches	59 inches	very gravelly loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9

Soil Map ID: 4

Soil Component Name: Valmont

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 0.42	Max: 7.3 Min: 6.6
2	9 inches	29 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.41 Min: 0.42	Max: 8.4 Min: 6.6

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	29 inches	59 inches	very gravelly loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 42.34 Min: 4.23	Max: 8.4 Min: 7.9

EXECUTIVE SUMMARY

SEARCH RESULTS

Unmappable (orphan) sites are not considered in the foregoing analysis.

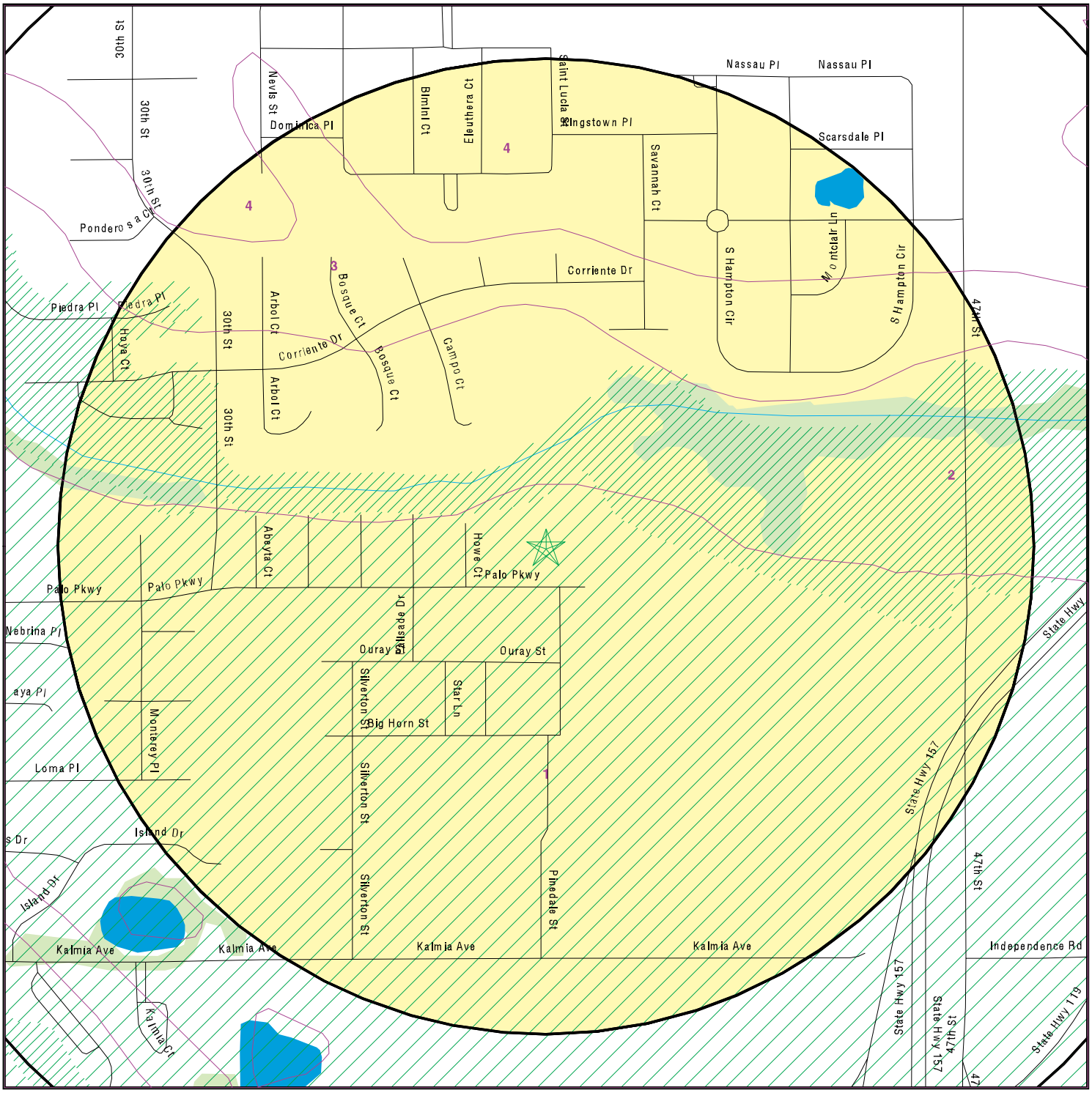
STANDARD ENVIRONMENTAL RECORDS

Name	Address	Dist/Dir	Map ID	Page
Not Reported				

HISTORICAL USE RECORDS

Name	Address	Dist/Dir	Map ID	Page
Not Reported				

PRIMARY MAP - 4221742.6S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 300 1/3 Miles

- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- SSURGO Soil

SITE NAME: Palo Park	CLIENT: Farmer Environmental Group
ADDRESS: 4525 Palo Parkway Boulder CO 80301	CONTACT: Jennifer Day INQUIRY #: 4221742.6s
LAT/LONG: 40.0442 / 105.2496	DATE: March 02, 2015 5:19 pm

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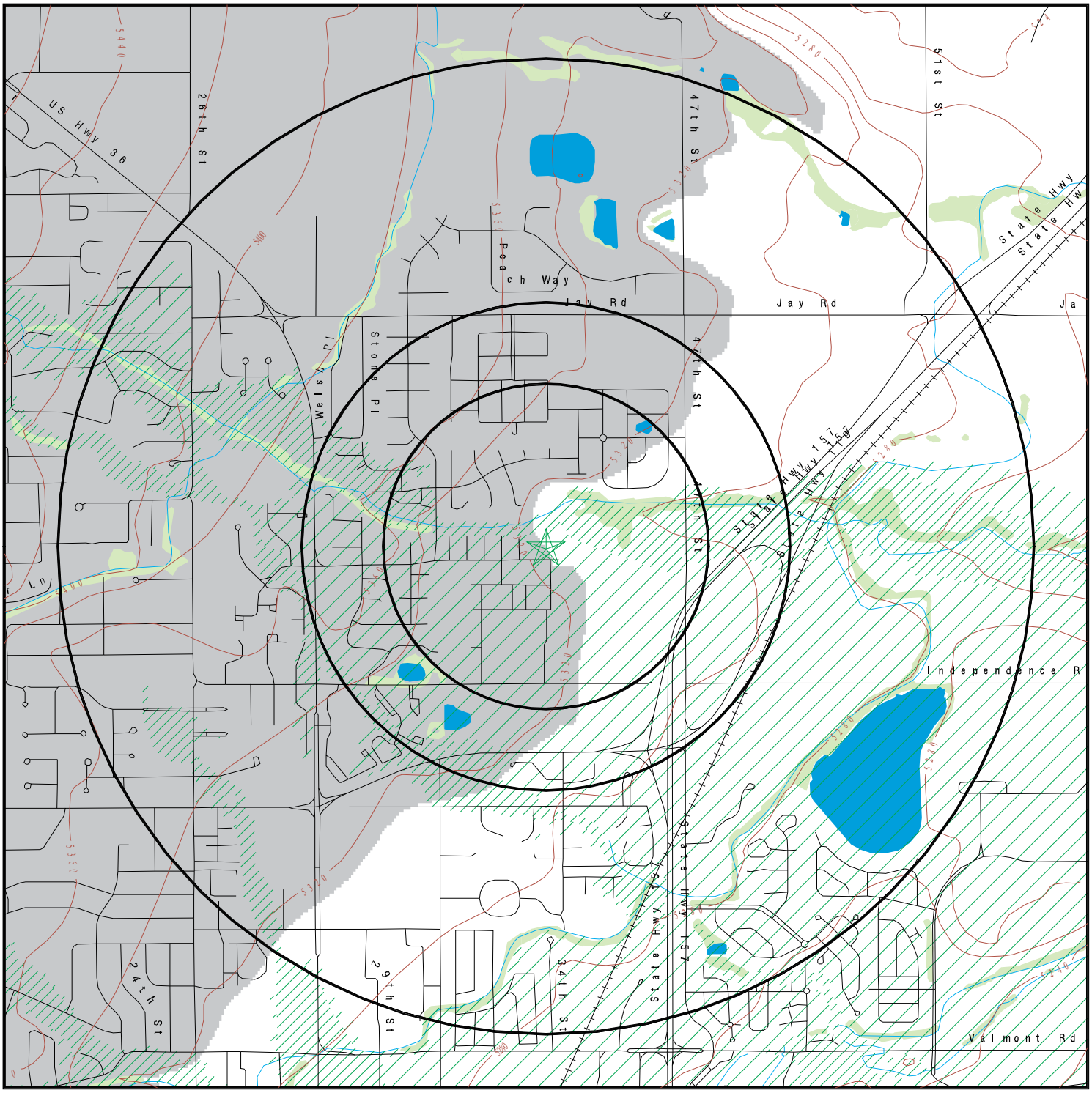
SECONDARY MAP - 4221742.6S



0 300 1/3 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Contour Lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Upgradient Area

SITE NAME: Palo Park	CLIENT: Farmer Environmental Group
ADDRESS: 4525 Palo Parkway Boulder CO 80301	CONTACT: Jennifer Day
LAT/LONG: 40.0442 / 105.2496	INQUIRY #: 4221742.6s DATE: March 02, 2015 5:18 pm

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AERIAL PHOTOGRAPHY - 4221742.6s

0 300 1/3 Miles

N

SITE NAME: Palo Park ADDRESS: 4525 Palo Parkway Boulder CO 80301 LAT/LONG: 40.0442 / 105.2496	CLIENT: Farmer Environmental Group CONTACT: Jennifer Day INQUIRY #: 4221742.6s DATE: March 02, 2015 5:22 pm

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MAP FINDINGS

LEGEND

FACILITY NAME **FACILITY ADDRESS, CITY, ST, ZIP**			EDR SITE ID NUMBER
⊠MAP ID#	Direction Distance Range Relative Elevation	(Distance feet / miles) Feet Above Sea Level	ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency.

Worksheet:

Comments:

Comments may be added on the online Vapor Encroachment Worksheet.

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

RECORD SOURCES AND CURRENCY

To maintain currency of the following databases, EDR contacts the appropriate agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

PRP: Potentially Responsible Parties

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013 | Source: EPA
Number of Days to Update: 3 | Telephone: 202-564-6023
Last EDR Contact :02/13/2015

RMP: Risk Management Plans

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2014 | Source: Environmental Protection Agency
Number of Days to Update: 86 | Telephone: 202-564-8600
Last EDR Contact :01/26/2015

ADAMS CO. LF: Summary Report on Methane Gas Hazards and Surveys Conducted on Domestic and Demolition Landfills in Adams County

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

As of May 8, 1978, all known landfills or dumping sites in the Adams County area have been surveyed.

Date of Government Version: 05/08/1978 | Source: Tri-County Health Department
Number of Days to Update: 47 | Telephone: 303-761-1340
Last EDR Contact :01/27/1995

AIRS: Permitted Facility & Emissions Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of Air Pollution Control Division permits and emissions data.

Date of Government Version: 12/08/2014 | Source: Department of Public Health & Environment
Number of Days to Update: 30 | Telephone: 303-692-3213
Last EDR Contact :12/05/2014

ARAPAHOE CO. LF: A Survey of Landfills in Arapahoe County

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

RECORD SOURCES AND CURRENCY

A survey of Arapahoe County was conducted from August through November, 1977, of all open and closed landfills and dumpsites in the county. Each of the sites found was classified as domestic or demolition.

Date of Government Version: 12/31/1978
Number of Days to Update: 47
Last EDR Contact :01/27/1995

Source: Tri-County Health Department
Telephone: 303-761-1340

ASBESTOS: Asbestos Abatement & Demolition Projects
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Asbestos abatement and demolition projects by the contractor.

Date of Government Version: 11/11/2014
Number of Days to Update: 50
Last EDR Contact :02/26/2015

Source: Department of Public Health & Environment
Telephone: 303-692-3100

AST: Aboveground Tank List
Standard Environmental Record Source: State and tribal registered storage tank lists
Search Distance: Property

Aboveground storage tank locations.

Date of Government Version: 12/11/2014
Number of Days to Update: 26
Last EDR Contact :12/05/2014

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521

AUL: Environmental Real Covenants List
Standard Environmental Record Source: State and tribal institutional control / engineering control registries
Search Distance: Property

Senate Bill 01-145 gave authority to the Colorado Department of Public Health and Environment to approve requests to restrict the future use of a property using an enforceable agreement called an environmental covenant. When a contaminated site is not cleaned up completely, land use restrictions may be used to ensure that the selected cleanup remedy is adequately protective of human health and the environment.

Date of Government Version: 02/03/2015
Number of Days to Update: 8
Last EDR Contact :02/02/2015

Source: Department of Public Health & Environment
Telephone: 303-692-3331

BOULDER CO. LF: Old Landfill Sites
Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Landfill sites in Boulder county.

Date of Government Version: 05/01/1986
Number of Days to Update: 23
Last EDR Contact :01/30/1998

Source: Boulder County Health Department
Telephone: 303-441-1182

CDL: Meth Lab Locations
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Meth lab locations that were reported to the Department of Public Health & Environment.

Date of Government Version: 01/04/2015
Number of Days to Update: 34

Source: Department of Public Health and Environment
Telephone: 303-692-3023

RECORD SOURCES AND CURRENCY

Last EDR Contact :01/05/2015

CO ERNS: Spills Database
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

State reported spills.

Date of Government Version: 01/04/2015
Number of Days to Update: 34
Last EDR Contact :01/05/2015

Source: Department of Public Health and Environmental
Telephone: 303-692-2000

DENVER CO. LF: Landfills in Denver County
Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Landfill sites in the city and county of Denver.

Date of Government Version: 02/13/2014
Number of Days to Update: 28
Last EDR Contact :12/24/2014

Source: City and County of Denver
Telephone: 303-436-7300

DOUGLAS CO. LF: Douglas County Landfill Key
Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Landfill sites in Douglas county.

Date of Government Version: 06/12/1991
Number of Days to Update: 47
Last EDR Contact :01/27/1995

Source: Tri-County Health Department
Telephone: 303-761-1340

DRYCLEANERS: Drycleaner Facilities
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.25 Mile

A listing of drycleaning facilities.

Date of Government Version: 12/08/2014
Number of Days to Update: 30
Last EDR Contact :12/05/2014

Source: Department of Public Health & Environment
Telephone: 303-692-3213

Financial Assurance 1: Financial Assurance Information Listing
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/20/2015
Number of Days to Update: 18
Last EDR Contact :01/19/2015

Source: Department of Public Health & Environment
Telephone: 303-692-3350

Financial Assurance 2: Financial Assurance Information Listing
Standard Environmental Record Source: Other Standard Environmental Records

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

RECORD SOURCES AND CURRENCY

Date of Government Version: 01/20/2015
Number of Days to Update: 18
Last EDR Contact :01/19/2015

Source: Department of Public Health & Environment
Telephone: 303-392-3350

HISTORICAL LANDFILL: Historical Landfill List

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

Search Distance: 0.333 Mile

Abandoned/Inactive Landfills.

Date of Government Version: 01/31/1993
Number of Days to Update: 36
Last EDR Contact :09/05/1996

Source: Department of Public Health & Environment
Telephone: 303-692-3300

LAST: Leaking Aboveground Storage Tank Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

Search Distance: 0.333 Mile

A listing of leaking aboveground storage tank sites.

Date of Government Version: 12/11/2014
Number of Days to Update: 26
Last EDR Contact :12/05/2014

Source: Department of Labor & Employment
Telephone: 303-318-8525

LF DENVER CO METHANE: Investigation of Methane Gas Hazards

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

The purpose of this study was to assess the actual and potential generation, migration, explosive and related problem associated with specified old landfills, and to identify existing and potential problems, suggested strategies to prevent, abate, and control such problems and recommend investigative and monitoring functions as may be deemed necessary. Eight sites determined to be priorities due to population density and potential hazards to population and property were selected by the Colorado Department of Health.

Date of Government Version: 01/01/1981
Number of Days to Update: 38
Last EDR Contact :01/15/2013

Source: City and County of Denver Department of Environmental Health
Telephone: 720-865-5522

LUST: Leaking Underground Storage Tank List

Standard Environmental Record Source: State and tribal leaking storage tank lists

Search Distance: 0.333 Mile

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 12/11/2014
Number of Days to Update: 26
Last EDR Contact :12/05/2014

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521

METHANE INVESTIGATION: Methane Gas & Swamp Findings

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The primary objective of this study was to assess methane gas related hazards at selected landfill sites in Colorado. These sites were selected by the Colorado Department of Health following evaluation of responses received from County and Municipal agencies about completed and existing landfills within their jurisdiction.

Date of Government Version: 03/15/1979

Source: Department of Health

RECORD SOURCES AND CURRENCY

Number of Days to Update: 50
Last EDR Contact :01/27/1995
Telephone: 303-640-3335

METHANE SITE: Methane Site Investigations - Jefferson County 1980
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

The objectives of the study are to define as closely as possible the boundaries of methane producing solid waste landfills.

Date of Government Version: 12/31/1980
Number of Days to Update: 50
Last EDR Contact :01/27/1995
Source: Jefferson County Health Department
Telephone: 303-239-7175

MINES: Permitted Mines Listing
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.25 Mile

This dataset represents permitted mines in the State of Colorado

Date of Government Version: 09/19/2011
Number of Days to Update: 37
Last EDR Contact :12/26/2012
Source: Division of Reclamation Mining and safety
Telephone: 303-866-3567

NPDES: Permitted Facility Listing
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of permitted facilities from the Water Quality Control Division.

Date of Government Version: 02/02/2015
Number of Days to Update: 8
Last EDR Contact :02/02/2015
Source: Department of Public Health & Environment
Telephone: 303-692-3611

PUEBLO CO. LF: Designated Disposal & Landfill Sites
Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Only inert materials. Asphalt, cement, dirt & rock unless otherwise specified. These sites are no longer active.

Date of Government Version: 04/30/1990
Number of Days to Update: 21
Last EDR Contact :11/13/1995
Source: Pueblo City-County Health Department
Telephone: 719-583-4300

SWF/LF: Solid Waste Sites & Facilities
Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Search Distance: 0.333 Mile

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/06/2014
Number of Days to Update: 65
Last EDR Contact :02/12/2015
Source: Department of Public Health & Environment
Telephone: 303-692-3300

SWRCY: Registered Recyclers Listing
Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Search Distance: 0.333 Mile

RECORD SOURCES AND CURRENCY

A listing of registered recycler locations in the state of Colorado.

Date of Government Version: 12/15/2014
Number of Days to Update: 21
Last EDR Contact :12/11/2014

Source: Department of Public Health & Environment
Telephone: 303-692-3337

TRI CO. LF: Tri-County Area Solid Waste Facilities List (Adams, Arapahoe and Douglas Counties)

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

Closed Domestic Landfills in Adams County, Closed Domestic Landfills in Arapahoe County, Closed Demolition Landfills in Arapahoe County, Closed Domestic Landfills in Douglas County.

Date of Government Version: 10/15/1983
Number of Days to Update: 47
Last EDR Contact :01/27/1995

Source: Tri-County Health Department
Telephone: 303-761-1340

TRUST: Lust Trust Sites

Standard Environmental Record Source: State and tribal leaking storage tank lists

Search Distance: 0.333 Mile

Reimbursement application package. The 1989 Colorado General Assembly established Colorado's Petroleum Storage Tank Fund. The Fund reimburses eligible applicants for allowable costs incurred in cleaning up petroleum contamination from underground and aboveground petroleum storage tanks, as well as for third-party liability expenses. Remediation of contamination caused by railroad or aircraft fuel is not eligible for reimbursement. The Fund satisfies federal Environmental Protection Agency financial assurance requirements. Monies in the Fund come from various sources, predominantly the state environmental surcharge imposed on all petroleum products except railroad or aircraft fuel.

Date of Government Version: 12/31/2014
Number of Days to Update: 33
Last EDR Contact :12/24/2014

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521

UMTRA: Uranium Mill Tailings Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

There were nine uranium mill tailings sites in Colorado designated for cleanup under the federal Uranium Mill Tailings Radiation Control Act. These nine sites, know commonly as UMTRA sites, were remediated jointly by the State of Colorado and the U.S. Department of Energy during the late 1980's and early 1990's. Mill tailings were removed from 8 of the mill sites and relocated in engineered disposal cells. A disposal cell is designed to encapsulate the material, reduce radon emanation, and prevent the movement of water through the material. At one site, Maybell, CO, the tailings were stabilized in-place at the mill site. After remediation of the tailings was completed, the State and DOE began to investigate the residual impacts to groundwater at the mill sites. The groundwater phase of the UMTRA program is on-going.

Date of Government Version: 11/23/2004
Number of Days to Update: 42
Last EDR Contact :02/23/2015

Source: Department of Public Health & Environment
Telephone: 970-248-7164

UST: Underground Storage Tank Database

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 12/11/2014
Number of Days to Update: 26
Last EDR Contact :12/05/2014

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521

RECORD SOURCES AND CURRENCY

VCP: Voluntary Cleanup & Redevelopment Act Application Tracking Report

Standard Environmental Record Source: State and tribal voluntary cleanup sites

Search Distance: 0.333 Mile

The Voluntary Cleanup and Redevelopment Act is intended to permit and encourage voluntary cleanups by providing a method to determine clean-up responsibilities in planning the reuse of property. The VCRA was intended for sites which were not covered by existing regulatory programs.

Date of Government Version: 08/27/2014
Number of Days to Update: 36
Last EDR Contact :01/16/2015

Source: Department of Public Health and Environmental
Telephone: 303-692-3331

WELD CO. LF: Solid Waste Facilities in Weld County

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

Solid Waste Facilities in Weld County.

Date of Government Version: 12/05/2014
Number of Days to Update: 26
Last EDR Contact :02/09/2015

Source: Weld County Department of Public Health
Telephone: 970-304-6415

2020 COR ACTION: 2020 Corrective Action Program List

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.25 Mile

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Number of Days to Update: 7
Last EDR Contact :02/13/2015

Source: Environmental Protection Agency
Telephone: 703-308-4044

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Standard Environmental Record Source: Federal CERCLIS

Search Distance: 0.333 Mile

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Number of Days to Update: 94
Last EDR Contact :02/27/2015

Source: EPA
Telephone: 703-412-9810

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013

Source: EPA

RECORD SOURCES AND CURRENCY

Number of Days to Update: 94 Telephone: 703-412-9810
Last EDR Contact :02/27/2015

COAL ASH DOE: Sleam-Electric Plan Operation Data
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005 Source: Department of Energy
Number of Days to Update: 76 Telephone: 202-586-8719
Last EDR Contact :01/15/2015

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014 Source: Environmental Protection Agency
Number of Days to Update: 40 Telephone: Not Reported
Last EDR Contact :12/12/2014

CONSENT: Superfund (CERCLA) Consent Decrees
Standard Environmental Record Source: Federal NPL
Search Distance: 0.333 Mile

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2013 Source: Department of Justice, Consent Decree Library
Number of Days to Update: 31 Telephone: Varies
Last EDR Contact :12/24/2014

CORRACTS: Corrective Action Report
Standard Environmental Record Source: Federal RCRA CORRACTS facilities list
Search Distance: 0.333 Mile

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/09/2014 Source: EPA
Number of Days to Update: 31 Telephone: 800-424-9346
Last EDR Contact :12/29/2014

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Search Distance: 0.333 Mile

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Source: EPA, Region 9
Number of Days to Update: 137 Telephone: 415-947-4219
Last EDR Contact :01/26/2015

DELISTED NPL: National Priority List Deletions
Standard Environmental Record Source: Other Standard Environmental Records

RECORD SOURCES AND CURRENCY

Search Distance: 0.333 Mile

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/16/2014 Source: EPA
Number of Days to Update: 32 Telephone: Not Reported
Last EDR Contact :01/08/2015

DOT OPS: Incident and Accident Data
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012 Source: Department of Transporation, Office of Pipeline Safety
Number of Days to Update: 42 Telephone: 202-366-4595
Last EDR Contact :02/03/2015

EPA WATCH LIST: EPA WATCH LIST
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Source: Environmental Protection Agency
Number of Days to Update: 88 Telephone: 617-520-3000
Last EDR Contact :02/09/2015

ERNS: Emergency Response Notification System
Standard Environmental Record Source: Federal ERNS list
Search Distance: Property

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/29/2014 Source: National Response Center, United States Coast Guard
Number of Days to Update: 37 Telephone: 202-267-2180
Last EDR Contact :12/29/2014

FEMA UST: Underground Storage Tank Listing
Standard Environmental Record Source: State and tribal registered storage tank lists
Search Distance: Property

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010 Source: FEMA
Number of Days to Update: 55 Telephone: 202-646-5797
Last EDR Contact :01/12/2015

FINDS: Facility Index System/Facility Registry System
Standard Environmental Record Source: Other Standard Environmental Records

RECORD SOURCES AND CURRENCY

Search Distance: Property

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/16/2014 Source: EPA
Number of Days to Update: 40 Telephone: Not Reported
Last EDR Contact :02/27/2015

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Number of Days to Update: 25 Telephone: 202-566-1667
Last EDR Contact :02/23/2015

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Standard Environmental Record Source: Other Standard Environmental Records

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Source: EPA
Number of Days to Update: 25 Telephone: 202-566-1667
Last EDR Contact :02/23/2015

FUDS: Formerly Used Defense Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014 Source: U.S. Army Corps of Engineers
Number of Days to Update: 8 Telephone: 202-528-4285
Last EDR Contact :12/12/2014

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Source: Environmental Protection Agency
Number of Days to Update: 40 Telephone: 202-564-2501

RECORD SOURCES AND CURRENCY

Last EDR Contact :12/17/2007

HMIRS: Hazardous Materials Information Reporting System
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/30/2014 Source: U.S. Department of Transportation
Number of Days to Update: 36 Telephone: 202-366-4555
Last EDR Contact :12/30/2014

ICIS: Integrated Compliance Information System
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/31/2014 Source: Environmental Protection Agency
Number of Days to Update: 8 Telephone: 202-564-5088
Last EDR Contact :01/09/2015

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
Search Distance: 0.333 Mile

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013 Source: EPA Region 1
Number of Days to Update: 184 Telephone: 617-918-1313
Last EDR Contact :01/30/2015

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/10/2014 Source: EPA Region 10
Number of Days to Update: 87 Telephone: 206-553-2857
Last EDR Contact :01/26/2015

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2014 Source: EPA Region 4
Number of Days to Update: 10 Telephone: 404-562-8677
Last EDR Contact :01/26/2015

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/03/2014 Source: EPA, Region 5
Number of Days to Update: 12 Telephone: 312-886-7439

RECORD SOURCES AND CURRENCY

Last EDR Contact :01/26/2015

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/06/2014 Source: EPA Region 6
Number of Days to Update: 19 Telephone: 214-665-6597
Last EDR Contact :01/26/2015

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/23/2014 Source: EPA Region 7
Number of Days to Update: 65 Telephone: 913-551-7003
Last EDR Contact :01/26/2015

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 11/04/2014 Source: EPA Region 8
Number of Days to Update: 10 Telephone: 303-312-6271
Last EDR Contact :01/26/2015

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015 Source: Environmental Protection Agency
Number of Days to Update: 32 Telephone: 415-972-3372
Last EDR Contact :01/08/2015

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Source: Environmental Protection Agency
Number of Days to Update: 52 Telephone: 703-308-8245
Last EDR Contact :02/02/2015

INDIAN UST R1: Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal registered storage tank lists
Search Distance: Property

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013 Source: EPA, Region 1
Number of Days to Update: 271 Telephone: 617-918-1313
Last EDR Contact :01/30/2015

RECORD SOURCES AND CURRENCY

INDIAN UST R10: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/10/2014 Source: EPA Region 10
Number of Days to Update: 87 Telephone: 206-553-2857
Last EDR Contact :01/26/2015

INDIAN UST R4: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2014 Source: EPA Region 4
Number of Days to Update: 10 Telephone: 404-562-9424
Last EDR Contact :01/26/2015

INDIAN UST R5: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/03/2014 Source: EPA Region 5
Number of Days to Update: 12 Telephone: 312-886-6136
Last EDR Contact :01/26/2015

INDIAN UST R6: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/06/2014 Source: EPA Region 6
Number of Days to Update: 8 Telephone: 214-665-7591
Last EDR Contact :01/26/2015

INDIAN UST R7: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014 Source: EPA Region 7
Number of Days to Update: 65 Telephone: 913-551-7003
Last EDR Contact :01/26/2015

INDIAN UST R8: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 11/04/2014 Source: EPA Region 8
Number of Days to Update: 10 Telephone: 303-312-6137
Last EDR Contact :01/26/2015

INDIAN UST R9: Underground Storage Tanks on Indian Land

RECORD SOURCES AND CURRENCY

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/13/2014 Source: EPA Region 9
Number of Days to Update: 83 Telephone: 415-972-3368
Last EDR Contact :01/26/2015

INDIAN VCP R1: Voluntary Cleanup Priority Listing

Standard Environmental Record Source: State and tribal voluntary cleanup sites

Search Distance: 0.333 Mile

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014 Source: EPA, Region 1
Number of Days to Update: 36 Telephone: 617-918-1102
Last EDR Contact :12/31/2014

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

Standard Environmental Record Source: State and tribal voluntary cleanup sites

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Source: EPA, Region 7
Number of Days to Update: 27 Telephone: 913-551-7365
Last EDR Contact :04/20/2009

LEAD SMELTER 1: Lead Smelter Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014 Source: Environmental Protection Agency
Number of Days to Update: 64 Telephone: 703-603-8787
Last EDR Contact :01/05/2015

LEAD SMELTER 2: Lead Smelter Sites

Standard Environmental Record Source: Other Standard Environmental Records

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Source: American Journal of Public Health
Number of Days to Update: 36 Telephone: 703-305-6451
Last EDR Contact :12/02/2009

LIENS 2: CERCLA Lien Information

Standard Environmental Record Source: Federal CERCLIS

Search Distance: Property

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014 Source: Environmental Protection Agency
Number of Days to Update: 37 Telephone: 202-564-6023

RECORD SOURCES AND CURRENCY

Last EDR Contact :01/30/2015

LUCIS: Land Use Control Information System

Standard Environmental Record Source: Federal institutional controls / engineering controls registries

Search Distance: 0.333 Mile

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/03/2014 | Source: Department of the Navy

Number of Days to Update: 48 | Telephone: 843-820-7326

Last EDR Contact :02/16/2015

MLTS: Material Licensing Tracking System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 12/29/2014 | Source: Nuclear Regulatory Commission

Number of Days to Update: 21 | Telephone: 301-415-7169

Last EDR Contact :12/04/2014

NPL: National Priority List

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/16/2014 | Source: EPA

Number of Days to Update: 32 | Telephone: Not Reported

Last EDR Contact :01/08/2015

NPL Site Boundaries

Sources:

EPA"s Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-566-0690

EPA Region 1
Telephone: 617-918-1102

EPA Region 2
Telephone: 212-637-4293

EPA Region 3
Telephone: 215-814-5418

EPA Region 4
Telephone: 404-562-8681

EPA Region 5
Telephone: 312-353-1063

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

RECORD SOURCES AND CURRENCY

EPA Region 8
Telephone: 303-312-6118

EPA Region 9
Telephone: 415-947-4579

EPA Region 10
Telephone: 206-553-4479

NPL LIENS: Federal Superfund Liens

Standard Environmental Record Source: Federal NPL

Search Distance: Property

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Source: EPA
Number of Days to Update: 56 Telephone: 202-564-4267
Last EDR Contact :08/15/2011

ODI: Open Dump Inventory

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Source: Environmental Protection Agency
Number of Days to Update: 39 Telephone: 800-424-9346
Last EDR Contact :06/09/2004

PADS: PCB Activity Database System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014 Source: EPA
Number of Days to Update: 33 Telephone: 202-566-0500
Last EDR Contact :01/16/2015

PCB TRANSFORMER: PCB Transformer Registration Database

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011 Source: Environmental Protection Agency
Number of Days to Update: 83 Telephone: 202-566-0517
Last EDR Contact :01/30/2015

Proposed NPL: Proposed National Priority List Sites

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

RECORD SOURCES AND CURRENCY

A site that has been proposed for listing on the NationalPriorities List through the issuance of a proposed rule in the Federal Register.EPA then accepts public comments on the site, responds to the comments,and places on the NPL those sites that continue to meet therequirements for listing.

Date of Government Version: 12/16/2014 Source: EPA
Number of Days to Update: 32 Telephone: Not Reported
Last EDR Contact :01/08/2015

RAATS: RCRA Administrative Action Tracking System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Source: EPA
Number of Days to Update: 35 Telephone: 202-564-4104
Last EDR Contact :06/02/2008

RADINFO: Radiation Information Database

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/07/2014 Source: Environmental Protection Agency
Number of Days to Update: 12 Telephone: 202-343-9775
Last EDR Contact :02/27/2015

RCRA NonGen / NLR: RCRA - Non Generators

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/09/2014 Source: Environmental Protection Agency
Number of Days to Update: 31 Telephone: 703-308-8895
Last EDR Contact :12/29/2014

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2014 Source: Environmental Protection Agency
Number of Days to Update: 31 Telephone: 703-308-8895
Last EDR Contact :12/29/2014

RECORD SOURCES AND CURRENCY

RCRA-LQG: RCRA - Large Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2014 Source: Environmental Protection Agency

Number of Days to Update: 31 Telephone: 703-308-8895

Last EDR Contact :12/29/2014

RCRA-SQG: RCRA - Small Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/09/2014 Source: Environmental Protection Agency

Number of Days to Update: 31 Telephone: 703-308-8895

Last EDR Contact :12/29/2014

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

Standard Environmental Record Source: Federal RCRA TSD facilities list

Search Distance: 0.333 Mile

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/09/2014 Source: Environmental Protection Agency

Number of Days to Update: 31 Telephone: 703-308-8895

Last EDR Contact :12/29/2014

ROD: Records Of Decision

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013 Source: EPA

Number of Days to Update: 74 Telephone: 703-416-0223

Last EDR Contact :12/12/2014

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

RECORD SOURCES AND CURRENCY

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011 Source: Environmental Protection Agency
Number of Days to Update: 54 Telephone: 615-532-8599
Last EDR Contact :02/18/2015

SSTS: Section 7 Tracking Systems
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Source: EPA
Number of Days to Update: 77 Telephone: 202-564-4203
Last EDR Contact :01/26/2015

TRIS: Toxic Chemical Release Inventory System
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011 Source: EPA
Number of Days to Update: 44 Telephone: 202-566-0250
Last EDR Contact :01/29/2015

TSCA: Toxic Substances Control Act
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012 Source: EPA
Number of Days to Update: 14 Telephone: 202-260-5521
Last EDR Contact :12/22/2014

UMTRA: Uranium Mill Tailings Sites
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010 Source: Department of Energy
Number of Days to Update: 146 Telephone: 505-845-0011
Last EDR Contact :02/27/2015

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
Standard Environmental Record Source: Other Standard Environmental Records

RECORD SOURCES AND CURRENCY

Search Distance: Property

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014 Source: EPA
Number of Days to Update: 17 Telephone: 202-564-2496
Last EDR Contact :02/06/2015

US AIRS MINOR: Air Facility System Data
Standard Environmental Record Source: Other Standard Environmental Records
A listing of minor source facilities.

Date of Government Version: 10/16/2014 Source: EPA
Number of Days to Update: 17 Telephone: 202-564-2496
Last EDR Contact :02/06/2015

US BROWNFIELDS: A Listing of Brownfields Sites
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/22/2014 Source: Environmental Protection Agency
Number of Days to Update: 38 Telephone: 202-566-2777
Last EDR Contact :12/22/2014

US CDL: Clandestine Drug Labs
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/10/2014 Source: Drug Enforcement Administration
Number of Days to Update: 70 Telephone: 202-307-1000
Last EDR Contact :11/25/2014

US ENG CONTROLS: Engineering Controls Sites List
Standard Environmental Record Source: Federal institutional controls / engineering controls registries
Search Distance: Property

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/18/2014 Source: Environmental Protection Agency

RECORD SOURCES AND CURRENCY

Number of Days to Update: 31
Last EDR Contact :02/26/2015
Telephone: 703-603-0695

US FIN ASSUR: Financial Assurance Information
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 11/19/2014
Number of Days to Update: 69
Last EDR Contact :02/16/2015
Source: Environmental Protection Agency
Telephone: 202-566-1917

US HIST CDL: National Clandestine Laboratory Register
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/10/2014
Number of Days to Update: 70
Last EDR Contact :11/25/2014
Source: Drug Enforcement Administration
Telephone: 202-307-1000

US INST CONTROL: Sites with Institutional Controls
Standard Environmental Record Source: Federal institutional controls / engineering controls registries
Search Distance: Property

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/18/2014
Number of Days to Update: 31
Last EDR Contact :02/26/2015
Source: Environmental Protection Agency
Telephone: 703-603-0695

US MINES: Mines Master Index File
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 12/30/2014
Number of Days to Update: 29
Last EDR Contact :12/30/2014
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

DOD: Department of Defense Sites
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

RECORD SOURCES AND CURRENCY

Date of Government Version: 12/31/2005 Source: USGS
Number of Days to Update: 62 Telephone: 888-275-8747
Last EDR Contact :01/15/2015

INDIAN RESERV: Indian Reservations
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005 Source: USGS
Number of Days to Update: 34 Telephone: 202-208-3710
Last EDR Contact :01/15/2015

PWS: Public Water System Data
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

This Safe Drinking Water Information System (SDWIS) file contains public water systems name and address, population served and the primary source of water

Date of Government Version: 12/17/2013 Source: EPA
Number of Days to Update: 279 Telephone: Not Reported
Last EDR Contact :02/26/2015

RECORD SOURCES AND CURRENCY

HISTORICAL USE RECORDS

RGA LF: Recovered Government Archive Solid Waste Facilities List

Standard Environmental Record Source: Exclusive Recovered Govt. Archives

Search Distance: Property

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Public Health & Environment in Colorado.

Date of Government Version: Not Reported
Source: Department of Public Health & Environment
Number of Days to Update: 198
Telephone: Not Reported
Last EDR Contact :06/01/2012

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

Standard Environmental Record Source: Exclusive Recovered Govt. Archives

Search Distance: Property

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Labor and Employment, Oil Inspection Section in Colorado.

Date of Government Version: Not Reported
Source: Department of Labor and Employment, Oil Inspection Section
Number of Days to Update: 185
Telephone: Not Reported
Last EDR Contact :06/01/2012

EDR MGP: EDR Proprietary Manufactured Gas Plants

Standard Environmental Record Source: Former manufactured Gas Plants

Search Distance: 0.333 Mile

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: 08/28/2009
Source: EDR, Inc.
Number of Days to Update: 55
Telephone: Not Reported
Last EDR Contact :11/30/2012

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

Standard Environmental Record Source: Historical Gas Stations

Search Distance: 0.25 Mile

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: 02/20/2007
Source: EDR, Inc.
Number of Days to Update: 42
Telephone: Not Reported
Last EDR Contact :02/21/2007

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

Standard Environmental Record Source: Historical Dry Cleaners

RECORD SOURCES AND CURRENCY

Search Distance: 0.25 Mile

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: 02/20/2007
Number of Days to Update: 42
Last EDR Contact :02/21/2007

Source: EDR, Inc.
Telephone: Not Reported

RECORD SOURCES AND CURRENCY

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5' minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW® Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW® Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services. The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

STREET AND ADDRESS INFORMATION

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APPENDIX G

Prior Environmental Reports

FREEDOM ENVIRONMENTAL
CONSULTANTS, INC.

12808 West 56th Place
Arvada, CO 80002-1330
Telephone: (303) 940-1410
Facsimile: (303) 940-1420

March 23, 2006

Ms. Ann Goodhart
City of Boulder
Open Space & Mountain Parks
P.O. Box 791
Boulder, Colorado 80306

Subject: Transmittal of Phase I Environmental Site Assessment Report
Approximately 3-Acre Vacant Property
4525 Palo Parkway
Boulder, Colorado
Freedom Job No.: 0606-013

Dear Ms. Goodhart:

This document is the final report for an Environmental Site Assessment conducted at the referenced site. The study was performed in accordance with Freedom's proposal to you dated March 8, 2006 and in general accordance with the ASTM Standard E1527-00.

Several common acronyms are used throughout this report. For your convenience, Appendix C lists many common acronyms that may be found in environmental reports.

The information accumulated for this assessment will be retained with your project file. We appreciate the opportunity to perform these services for you. Please contact me if you have any questions regarding this information.

Sincerely,

FREEDOM ENVIRONMENTAL CONSULTANTS, INC.

Richard M. Luce
President and Principal Geologist

attachment

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EXECUTIVE SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Approximately 3-Acre Vacant Property
4525 Palo Parkway
Boulder, Colorado

As authorized by Ms. Ann Goodhart on March 8, 2006, Freedom Environmental Consultants performed a Phase I environmental site assessment (ESA) of the above-referenced site (site) in accordance with Freedom's proposal dated March 8, 2006 and in general accordance with the ASTM Standard E1527-00. The following is a summary of findings, conclusions and recommendations, and specific details were not included or fully developed in this section. The report must be read in its entirety for a comprehensive understanding of the items contained in this summary.

Site Description	
Approximate size	3 acres
Property type Site Occupant	Vacant Undeveloped
Nearby roadways	Palo Parkway adjoins the site to the south.
Access to site	The site is accessed from Palo Parkway.
Improvements	The site is an unimproved parcel. It is vegetated with native grasses.
Surrounding area	The site is located in an area of undeveloped land, parks and single family residences.

Historical Information Summary: The site has been undeveloped and apparently vacant land since the early 1900s. By the 1940s, it may have been used as pasture, but it has remained vacant of structures and undeveloped to the present. The identified historic use is not considered a REC for the site.

The adjoining properties were vacant land since at least the early 1900s. At that time, there was a road to a structure to the west beyond intervening vacant land. The adjoining properties remained vacant and undeveloped until construction of the adjoining land to the west in the 1980s. The remaining adjoining land has remained undeveloped although a park was constructed to the east in the late 1980s or early 1990s. None of these uses appear to be RECs for the site.

Site Reconnaissance Summary: The site was vacant and undeveloped land. The current use is not a REC for the site.

Regulatory Database Summary: No regulated facilities were identified for the site. No regulated facilities were identified within the standard search radii.

Findings and Conclusions: This assessment has not revealed evidence of recognized environmental conditions (RECs) for the site.

Recommendations: With regard to the above-listed Findings and Conclusions, Freedom Environmental does not make recommendations for additional assessment at this time.

1.0 INTRODUCTION

As authorized by Ms. Ann Goodhart of the City of Boulder (Client) on March 8, 2006, Freedom Environmental Consultants (Freedom) performed a Phase I environmental site assessment (ESA) of the approximately 3-acre vacant property at 4525 Palo Parkway, Boulder, Colorado (site). The location of the site is shown on Figure 1.

1.1 Purpose

The purpose of a Phase I Environmental Site Assessment, to the extent feasible pursuant to the processes prescribed in ASTM E1527-00, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, is to identify "recognized environmental conditions" in connection with the site. As defined in the ASTM, recognized environmental conditions are those that indicate " the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into the structures on the property or into the ground, ground water, or surface water of the property...even under conditions in compliance with laws." RECS do not include *de minimis* conditions that "generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

1.2 Scope of Work

These services were performed in accordance with Freedom's proposal dated March 8, 2006 and in general accordance with the ASTM Standard E1527-00. A Phase I ESA has four basic components, including: interviews, review of historical and regulatory database information, general description of the site's physical setting (i.e., geology, topography) and a non-invasive site reconnaissance. The scope of work for this ESA involves the following tasks:

- Site history review using reasonably ascertainable and readily available records as per ASTM to reveal the site's obvious usage from 1940 or its first developed use, whichever is earlier. This review considered the following information sources for the site and adjoining properties: city directories, aerial photographs, prior ESA reports (if any, provided by Client), fire insurance maps, and land title records (site only, if any, provided by Client). Reasonable attempts were made to interview those with historical details about the site. Historical records review for non-adjoining properties was out-of-scope.

- Review of federal and state environmental database listings compiled by an environmental database search company for the site and facilities within the search radii recommended by ASTM. Identification or confirmation of database listings shown as "unmappable" was out-of-scope.

- Physical setting information review for the site area derived from the applicable USGS topographic quad and geologic maps, USDA soil surveys, and other readily available sources as may be applicable.

- A non-invasive site reconnaissance to observe accessible and representative portions of the site for RECs. As suggested by ASTM, visual evidence of RECs may include stained soils, stressed vegetation, transformers, evidence of above ground or underground storage tanks, trash and debris, use or storage of hazardous substances or petroleum products. An attempt was made to interview the site contact identified by the Client to learn more about the uses and environmental information for the site. Observations of adjoining properties (from the site's boundaries and public right-of-ways) were made to identify apparent RECs.

This ESA does not include the following: ASTM E-1527-00 Non-Scope Considerations (such as asbestos containing materials, radon, wetlands, lead, regulatory compliance, ecological issues, indoor air quality/fungi, high voltage power lines), detailed review of governmental agency records, review of information or records not received within two (2) days of the final report date, business environmental risk evaluations, or other services not discussed in this report.

1.3 Standard of Care, Use and Limitations

Freedom services were performed in a manner consistent with industry practices; no warranties, express or implied, are intended or made. Due to the non-invasive, limited and opinion-based nature of a Phase I ESA, Freedom cannot eliminate uncertainty as to environmental conditions at the site nor can we represent that the site contains no hazardous substances, petroleum products or other latent conditions beyond those identified or observed through the services performed for this ESA. The findings and conclusions in this final report are based upon the site's current use and information sources listed above that are obtained prior to issuance of the final report. Freedom does not warrant the accuracy of information obtained from interviewees or other third parties (e.g., other environmental firms, database or title companies).

Unless otherwise agreed, this ESA was prepared for the exclusive use and reliance of the Client named on the cover of this report. Third party reliance may be had (if there is no potential conflict of interest between the parties) using a reliance form that is subject to the terms of the proposal for these services and Freedom's standard Terms and Conditions. The limit of liability specified in those Terms and Conditions constitutes Freedom's aggregate amount of liability to the Client and all relying parties.

The services herein are in no way to be construed to be or relied upon as a legal interpretation, opinion or advice.

The following ASTM exceptions or deviations apply to these services (or are described in the scope of work or applicable sections of this report): Credentials of the environmental assessors (resumes) and of the company (Statement of Qualifications) have not been included in this report but are available upon request.

2.0 GENERAL SITE CHARACTERISTICS

2.1 Site Description

The pertinent site features are shown on Figure 2 and described in the following table. Photographs of the site are included in Appendix A.

TABLE 2-1 Site Description	
Approximate size	3 acres
Property type Occupant(s)	Vacant Undeveloped
Nearby roadways	Palo Parkway adjoins the site to the south.
Access to site	The site is accessed from Palo Parkway.
Improvements	The site is an unimproved parcel. It is vegetated with native grasses.
Section, Township, Range	A portion of the Southwest Quarter of the Southeast Quarter of Section 17, Township 1 North, Range 70 West, 6th Principal Meridian

2.2 Adjoining and Surrounding Properties

The surrounding area and adjoining properties are described in the following table:

TABLE 2-2 Adjoining and Surrounding Properties	
General Description Surrounding Properties	The site is located in an area of undeveloped land, parks and single family residences.
Adjoining – North	Vacant land along Fourmile Canyon Creek adjoins the site to the north. A park and single family residences are farther north.
Adjoining – East	A park adjoins the site to the east.
Adjoining – South	Palo Parkway adjoins the site to the south. At the time of the site reconnaissance, the adjoining land to the south was being prepared for development as residential properties.
Adjoining - West	Single family residences along Howe Court adjoin the site to the west.

3.0 PHYSICAL SETTING

The following information was obtained to provide details as to the site's physical setting. Note that this report may use the terms "upgradient, cross- or side-gradient and downgradient." These terms refer to the topographic gradient as related to the site which often mirrors actual gradient. Note, however, that groundwater flow direction and the depth to any shallow groundwater likely vary based upon seasonal changes (i.e., precipitation amounts) and the depth to the soil/bedrock interface. Actual groundwater gradient, depth and flow directions cannot be confirmed without information obtained from groundwater monitoring wells installed on site and/or nearby.

3.1 Topography

The site is located on the Niwot, Colorado 7½-minute USGS topographic quadrangle, prepared in 1967 and photorevised in 1979. The overall slope of the site is down to the east. The site elevation is approximately 5,310 feet above mean sea level (msl). The site is located near the eastern limit of Southern Rocky Mountain physiographic province in the Great Plains physiographic province.

3.2 Soils and Geology

The site is located within an area of the Nederland-Valmont association described as "Nearly level to moderately steep, deep, very cobbly and cobbly soils on old high terraces, alluvial fans, and benches" (USDA – Moreland, 1975). The specific soil types for the site were identified as the Nederland very cobbly sandy loam and the Calkins sandy loam. Underlying the site soils are Quaternary gravels along Fourmile Canyon Creek. These sediments overlie the Cretaceous Upper Pierre Formation (Tweto, 1979). The Upper Pierre is comprised of thick shale sequences with thin interbedded siltstones, sandstones, and limestones.

3.3 Groundwater

The site lies outside of the Denver Basin principal aquifer system in an area of no principal aquifers (USGS, 1997).

Shallow groundwater flow typically follows, and can be hypothesized from, the general slope of surface topography, but cannot be confirmed without the benefit of subsurface water level data. The expected direction of flow in this aquifer is to the east.

4.0 HISTORICAL RECORDS REVIEW

This review used reasonably ascertainable and readily available records as per ASTM to reveal the site's obvious usage from 1940 or its first developed use, whichever is earlier. Reasonable attempts were made to interview those with historical details about the site. Historical records review for non-adjoining properties was out-of-scope. The results of this research are discussed below.

4.1 Site Ownership

According to the Boulder County Assessor's office internet web page, the site is owned by the Boulder Valley School District. Freedom spoke with Mr. Don Orr, Boulder Valley School District representative, regarding his knowledge of the site ownership (Pc1a, 3/22/06. Mr. Orr stated that the district has owned the site since the adjoining area land was platted about 25 years ago. He was not aware of the prior owners. Chain-of-title records were not provided for this assessment. The available ownership information does not suggest a historic use indicative of RECs.

4.2 Historical Interviews

Mr. Orr stated that the site has always been vacant as far as he knows. He further stated that it has been unused since the district has owned it. Mr. Orr indicated that he was not aware of any USTs or ASTs at the site. He also was not aware of any environmental concerns related to the site.

A copy of the Record of Communication is included in Appendix D.

4.3 Aerial Photographs

Selected commercially-available aerial photographs were reviewed at Colorado Aerial Photograph Service in Denver, Colorado, to reveal historical development of the site and adjoining properties. Review of these photos may be limited by a photo's quality and scale. A summary of this review is provided below.

TABLE 4-1 Aerial Photograph Review

Photo Date Photo No.	Summary of Apparent Features
July 14, 1951 **BO34-68, 69**	**SITE:** The site is vacant pasture or unused range land. There are no distinguishing features on the site. **NORTH:** Fourmile Canyon Creek is just north of the site. Pasture or range land are farther north. **EAST:** Vacant range is east of the site. **SOUTH:** An east-west ditch is just south of the site. Vacant range or pasture is south of the site. A residence or single outbuilding is farther south. Mountview Cemetery is south of Kalmia. **WEST:** Vacant land is west of the site with a farm and small orchard farther west.
August 18, 1960 **110-25, 26**	**SITE:** There is no change (NC) from the previous photograph. **NORTH:** NC **EAST:** NC **SOUTH:** NC **WEST:** NC
April 27, 1970 **133-46, 47**	**SITE:** NC **NORTH:** NC **EAST:** NC **SOUTH:** NC **WEST:** NC although are scattered residences to the far southwest.
May 12, 1979 **59, 60**	**SITE:** NC **NORTH:** NC **EAST:** NC **SOUTH:** NC although the residence farther south has been converted to a commercial building and may be associated with the cemetery. **WEST:** NC although a residential area is west of the farm.
November 18, 1984 **18, 19**	**SITE:** NC **NORTH:** The area just northwest of the creek has been graded for development. **EAST:** NC **SOUTH:** NC **WEST:** The land adjoining the site to the west has been graded for residential development.

TABLE 4-1 Aerial Photograph Review	
Photo Date Photo No.	**Summary of Apparent Features**
June 21, 1995 108, 109	**SITE:** NC **NORTH:** Single family residences and park area adjoin the site to the north. A residential area is under construction to the northeast. **EAST:** Trails, an apparent soccer field and park are east of the site. **SOUTH:** NC **WEST:** Residences adjoin the site to the west.
May 23, 2005 90, 91	**SITE:** NC **NORTH:** NC **EAST:** NC **SOUTH:** NC **WEST:** NC

Of the apparent features summarized above, no features were observed suggesting a REC for the site.

4.4 Fire Insurance Maps

The Sanborn Company prepared maps for use by fire insurance companies since the late 1800s. These maps, which have been updated and expanded geographically on a periodic basis, provide information on the historical use of properties, including the name and business of the building occupants, construction materials, and features, such aboveground or underground storage tanks. Sanborn Maps are typically published for central business districts and were not available for this rural area.

4.5 City Directories

City directories were reviewed for this project Denver Public Library, Western History Section. The directories searched included the following years: Coles 1980, 1985, 1989, 1996, 2000, and 2005.

No listings along Palo Parkway were identified for the properties adjoining the site. Single family residences were identified along Howe Court for the years from 1990 through 2005. No listings were identified for Howe Court in 1985. No commercial listings were identified for the adjoining properties for any years searched.

4.6 Additional Sources

Historic topographic maps of the site and vicinity were researched to identify historic development of the site and vicinity, if any. Maps for the period from 1902 to 1979 were reviewed and the results are summarized below.

TABLE 4-2 Historical Topographic Map Review

Map Name Date Scale	Summary of Apparent Features
Boulder/Niwot 1904 and 1902 15'	**SITE:** The site appears to be vacant. **NORTH:** Fourmile Canyon Creek is just north of the site. Vacant land is farther north. **EAST:** Vacant land is east of the site. **SOUTH:** Vacant land is south of the site. **WEST:** A road and buildings are west of the site.
Boulder/Niwot 1957/1950 7 ½'	**SITE:** There is no change (NC) from the previous map. **NORTH:** NC **EAST:** A farm and orchard are southeast of the site beyond intervening vacant land. **SOUTH:** Mountview Cemetery is to the far south beyond vacant land. **WEST:** NC
Boulder/Niwot 1966/1967 7 ½'	**SITE:** NC **NORTH:** NC **EAST:** NC although the orchard to the far southeast is gone. **SOUTH:** NC **WEST:** NC
Boulder/Niwot 1971 7 ½'	**SITE:** NC **NORTH:** NC **EAST:** NC **SOUTH:** NC although residences are to the southwest. **WEST:** NC
Boulder/Niwot 1979 7 ½'	**SITE:** NC **NORTH:** NC **EAST:** NC **SOUTH:** NC **WEST:** NC

No features were observed on site or the adjoining properties that suggested the presence of RECs.

5.0 REGULATORY DATABASE REVIEW

Freedom reviewed federal and state environmental database listings compiled by Environmental Data Resources (EDR) of Southport, Connecticut for the site and facilities within the search radii recommended by ASTM. Identification or confirmation of database listings shown as "unmappable" was out-of-scope. The results of the regulatory database search by Satisfi are included in Appendix B and summarized in the following sections.

When the following sections refer to "up-gradient, cross or side-gradient and down-gradient," this usage refers only to the topographic gradient which often mirrors actual

gradient (actual ground water gradient, depth and flow directions cannot be confirmed without information obtained from monitoring wells installed on-site and/or nearby).

5.1 Site Listings

The database search and review of available information indicated that the site is not included in any standard or supplementary federal or state regulatory database listings researched.

5.2 Federal Databases

TABLE 5-1 Federal Database Listings for Properties other than the Site

Database Title and General Description	ASTM Search Radius	No. of Listings
National Priority List: The NPL is the EPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund program. To be included in the NPL, a site must meet or exceed a predetermined hazard ranking system score, be designated as a state top priority site, or meet three specific criteria set jointly by the US Department of Health and Human Services and the EPA in order to become an NPL site.	1.0 mile	0
CERCLIS Database: The CERCLIS List contains sites, which are either proposed to or on the NPL, or are in the screening and assessment phase for possible inclusion on the NPL. The information on each site includes a history of pre-remedial, remedial, and removal and community relations activities or events at the site, financial funding information for the events, and unrestricted enforcement activities.	0.5 mile	0
CERCLIS-NFRAP are facilities removed from the CERCLIS database and designated as requiring No Further Remedial Action Planned. These are facilities where completed investigations have indicated that contamination at the site, if any, was not serious enough to warrant Federal Superfund action or NPL consideration.	0.25 mile	0
RCRA Databases: Facilities listed in the RCRA databases are designated as hazardous waste treatment, storage, and disposal (TSD) facilities, Corrective Action Sites (CORRACTS), and hazardous waste generators and other hazardous waste (Other HW) activities. Other HW activities may include former generators, identified non-generators or transporters.	CORRACTS = 1.0 Mile TSD = 0.5 Mile Generators = 0.25 Mile Other Haz. Waste = 0.25	0 0 0 0
ERNS Database: This database contains information from spill reports of oil or hazardous substances submitted to federal agencies including the EPA, the U.S. Coast Guard, the National Response Center, and the DOT.	0.25 mile	0

5.2.1 Discussion of Federal Database Listings

No federal facilities were identified within the standard search radii.

5.3 State Databases

TABLE 5-2 State Database Listings for Properties other than the Site		
Database Title and General Description	**ASTM Search Radius**	**No. of Listings**
Equivalent Priorities Database/Voluntary Clean Up Program: The Although the State does not maintain a list of priority clean up sites similar to the NPL, it does track facilities that have been accepted into the Voluntary Clean Up Program.	0.5 mile	0
Solid Waste Disposal Facility Databases: Several State and County databases were reviewed for information regarding solid waste disposal facilities, which are reported and compiled collectively under this database.	0.5 mile	0
Historical Landfills: These facilities have been identified from a State database of abandoned/inactive landfills.	0.5 mile	0
Registered Leaking Underground Storage Tank (LUST) Database: The State tracks the status of facilities or sites where a release of petroleum hydrocarbons from underground storage tanks has been confirmed or reported.	0.5 mile	0
Colorado LUST Trust Database: The State maintains a list of locations where suspected releases of petroleum hydrocarbons are reported and responsible parties are unknown. The State directs investigations of these sites through its subcontractors.	0.5 mile	0
Registered UST/AST Databases: The State maintains databases of underground and aboveground storage tank (UST/AST) facilities. These databases do not include information on registered LUST sites.	UST = .25 mile AST = Target Property	0 0

5.3.1 Discussion of State Database Listings

No state regulated facilities were identified within the standard search radii.

One LUST facility was identified beyond the standard search radius, more than ½ mile to the southwest. The facility is cross-gradient from the site and is not a REC for the site.

5.4 Supplemental Searches

Freedom personnel also searched available information regarding the presence of oil and gas wells and/or production on or adjoining the site. Freedom consulted the Colorado Oil & Gas Conservation Commission's online GIS system available through the State's internet web site. The search indicated that no wells are present on the site or adjoining properties.

6.0 SITE RECONNAISSANCE

A non-invasive site reconnaissance was conducted to observe accessible and representative portions of the site for RECs. As suggested by ASTM, visual evidence of RECs considered included stained soils, stressed vegetation, transformers, evidence of above ground or underground storage tanks, trash and debris, use or storage of hazardous substances or petroleum products.

6.1 Site Overview

The site is a vacant and undeveloped approximately 3-acre parcel. The site is vegetated with native grasses. There was no evidence of significant use nor were there any distinguishing features on the site.

6.2 Specific Site Features

TABLE 6-1 Specific Site Features

Feature	Observed during site visit	Not observed during site visit
Drinking Water Source		X
Sewage Disposal/Septic		X
Use or Storage of Hazardous Substances		X
Use or Storage of Petroleum Products		X
Aboveground Storage Tanks		X
Underground Storage Tanks (or ancillary equipment)		X
Surficial Staining or Corrosion		X
Stressed Vegetation		X
Drums or Other Containers		X
Transformers		X
Drains or Sumps		X
Pits, Ponds or Lagoons		X
Solid Waste Disposal		X
Wastewater Discharges		X
Water Supply or Monitoring Wells		X

6.2.1 Discussion of Observed Features

Water and Sewer
Potable water and domestic sewage disposal for the area is provided by the City of Boulder.

Transformers
No transformers were observed at the site. Such transformers, when present, are typically the property of the local electrical utility, and the costs of investigation and remediation, if any, of a release from these utility-owned transformers are the responsibility of the utility company.

No features observed suggested the presence of RECs for the site.

6.3 Adjoining Property Observations

Observations of adjoining properties (from the site's boundaries and public right-of-ways) were made to identify apparent RECs.

Vacant land along Fourmile Canyon Creek adjoined the site to the north. Single family residences and a park are farther north. A park is east of the site. Palo Parkway adjoined the site to the south, beyond which is vacant land that was undergoing preparation for development as residential properties at the site of the site

reconnaissance. Single family residences along Howe Court adjoined the site to the west. None of the features observed suggested the presence of RECs for the site.

7.0 SUMMARY OF FINDINGS

Historical Information Summary: The site has been undeveloped and apparently vacant land since the early 1900s. By the 1940s, it may have been used as pasture, but it has remained vacant of structures and undeveloped to the present. The identified historic use is not considered a REC for the site.

The adjoining properties were vacant land since at least the early 1900s. At that time, there was a road to a structure to the west beyond intervening vacant land. The adjoining properties remained vacant and undeveloped until construction of the adjoining land to the west in the 1980s. The remaining adjoining land has remained undeveloped although a park was constructed to the east in the late 1980s or early 1990s. None of these uses appear to be RECs for the site.

Site Reconnaissance Summary: The site was vacant and undeveloped land. The current use is not a REC for the site.

Regulatory Database Summary: No regulated facilities were identified for the site. No regulated facilities were identified within the standard search radii.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Freedom Environmental has performed a Phase I Environmental Site Assessment in general accordance with ASTM E1527-00 and the agreed scope of work for the 3-acre vacant parcel at 4525 Palo Parkway, Boulder, Colorado. This assessment has revealed no evidence of recognized environmental conditions (RECs) for the site.

With regard to the above-listed Findings and Conclusions, Freedom Environmental does not make recommendations for additional assessment.

APPENDIX H

Farmer Qualifications

JENNIFER E. DAY, P.E.
PROFESSIONAL ENGINEER

EXPERIENCE

Ms. Day has over 20 years of environmental experience in project management, collection and management of laboratory data and field data, site contracts, ground water assessment programs and corrective action programs, subsurface soil investigations, ground water and surface water hydrological analysis, spill prevention, control and countermeasures plans, asbestos building inspections, and asbestos in soil investigations. Ms. Day's experience includes the development of proposals, cost estimates for environmental services, design and management of subsurface investigations, and performance of environmental assessments.

Ms. Day has conducted or managed thousands of environmental assessments and regulatory compliance audits for industrial and commercial properties in including utility properties and buffer zones. She has extensive knowledge of industrial standards ASTM 1527-05 and AAI.

Ms. Day has developed and reviewed numerous SPCC plans for various industrial clients in Colorado, Missouri and Texas. Clients have included an emulsified asphalt company, solid waste transfer stations, motor freight terminals, and petroleum industry tank farms.

Ms. Day has reviewed building specifications and drawings for asbestos containing building materials, conducted building inspections, developed sampling plans for ACBM, conducted asbestos in soil inspections, and soils management plans for construction in areas where asbestos in soil may be a concern. She has also conducted lead based paint inspections for the presence of lead based paint for abatement and demolition purposes.

Ms. Day also has extensive experience with studies leading to the preparation of NPDES permit applications and management plans for storm water systems including grading, erosion, and sedimentation control (GESC) plans. She has managed storm water compliance projects for industrial facilities as well as construction sites.

Ms. Day has prepared reports for RCRA corrective actions and Superfund sites including ground water assessment programs, installation of ground water monitoring wells and soil borings. She has been responsible for client interface, site contacts, monthly and quarterly reports, cost estimates, regulatory compliance for both EPA and State-lead projects. Project sites have been numerous states including Colorado and Texas.

LICENSES AND CERTIFICATIONS

- Registered Professional Engineer, Environmental Colorado (#34631), Tennessee-inactive (#00107205)
- USEPA Accredited and Colorado Asbestos Building Inspector (#7191)
- Kentucky Asbestos Building Inspector (I11-11-2285)
- Utah Asbestos Building Inspector (ASB-4672)
- OSHA 40-hour and 8-hour Annual Hazardous Waste Training
- OSHA 8-hour Supervisor Training
- USEPA and Colorado Lead Inspector/Risk Assessor (#18118)

- NITON Certified to Operate XRF Analyzer

EDUCATION

- MS, Computer Information Systems, University of Phoenix
- BS, Geological Engineering, Colorado School of Mines

PUBLICATIONS

Contributing author, "Voluntary Cleanup Roadmap, A How To Guide, Appendix 3, Voluntary Cleanup Program Application Guidance Document and VCRA Checklist," Hazardous Materials and Waste Management Division, Colorado Department of Public Health and Environment, August 1997.