

CBJ Lands "Buildable Sites" Criteria and Findings

Buildable Sites Objective—I identify:

- land for heavy industry/ export industry--resource processing, mfg.
- land for affordable housing

Buildable Sites Selection Criteria

Candidate sites NOT suitable for buildable sites--land that is designated on adopted CBJ plans or zoning for:

- parks, open space, natural resource preservation
- archaeological or historic resources
- industrial or waterfront commercial
- also, consider commercial lands only for mixed use, not to result in a net loss of commercially-zoned lands
- lands that may be included within, or needed for, a future public works project (e.g. bench roads in Douglas, landfill, wastewater plants)
- lands near potential hazards (aircraft flight routes, dams)

Eliminate from the buildable site any portion of the parcel that is:

- wetlands category A, B or Enhancement Potential
- avalanche or mass wasting hazard zones
- slopes greater than 18%
- lands within 200 feet of a watercourse

Consider the adjacent use of lands and the location criteria to determine the most appropriate land use designation and density

August 23, 2006 COMBINED 1st cut and 2nd cut buildable site candidate list, in order of size, in acres.

Buildable Sites:

1. CBJ owned parcels (119 out of 816 vacant or underutilized parcels in or near Urban Service Area);
2. Not known to be designated for parks, open space, greenbelts or a high school; and
3. Not zoned Industrial, Commercial or Waterfront Districts.

The following parcels are to be the subject of the next level of screening for suitability:

(1) eliminate portions of the parcel with slopes greater than 18%; (2) identify through aerial photos areas to eliminate because they are clearly wetlands; (3) then the remaining acreage on the parcel will be deemed candidates for wetlands delineation work.

Potential Sites for slope analysis (listed by size in acreage)			
New Site No.	Parcel Number(s)	Location	Parcel Size in acres
1	5B1301130000, 5B1401000170 & 5B1401000011	Lemon/Switzer Creek	779, includes land around D-Z school
2	4B1901070010 & 4B2301010170	Mend. Pens	665, excludes Smugglers Cove & Waterfront lands
3	6D0611000010 plus Road access parcels 6D0701010010, 6D0801010040 and 50	N. Douglas between the Bridge and Milepost 7	654
4	4B2201010010, 4B2201010100 & 4B2201020090	Petersen Hill	443, less the greenbelt areas
5	5B2401370171	East East Valley	226
6	1D0511000010	W. Juneau	194
7	4B2701080130	Upper West Valley	171
8	6D1201110010	N. Douglas between the Bridge and Milepost 7.	90
9	2D040C050030	Crow Hill area of Douglas	32, less the greenbelt area
10	7B0801000010	Salmon Creek	24
11	5B1201000160	Lemon Creek	16
12	7B0901020150	Salmon Creek	13
13	4B2301000120	Mendenhall Pens/ Fritz Cove Rd	11
14	4B2701080120	Upper West Valley	9
Total			3,327

Buildable Sites Analysis Findings

Of the 12 Sites, only four have portions of land that are less than 18 percent slopes and are devoid of watercourses and high-value (Class A or B) wetlands and, therefore, would be suitable for residential development. Only one of the sites (Site 11) is located in an area that is suitable for heavy industry; however, that site is bisected by Vanderbilt Creek and has a preponderance of wetlands and, therefore, is not suitable for development. The full analysis of the 12 candidate sites is included in Attachment 1 to this memorandum in a report entitled “Delineation and Function Rating of Jurisdictional Wetlands on Potentially-developable City-owned Parcels in Juneau, Alaska” by Koren Bosworth and Paul Adamus, dated December 2006” is found on the Comp Plan Update webpage under the Wetlands Analysis section as well as in all public libraries: www.juneau.org/cddftp/CompPlanUpdate.php

Of the 4 Sites that have buildable lands, 2 of the Sites (Site 2—Mendenhall Peninsula and Site 8—North Douglas at Fish Creek) rely on access roads that are severely congested in the peak evening week-day period and are at Levels of Service (LOS) F, the worst level of congestion. These Sites should not be deemed buildable unless and until the access roads are improved to LOS D or better. No such improvements to these roads have been identified by the CBJ Public Works Traffic Division or by the State Transportation Improvement Program (STIP). The current STIP shows some transit and bridge improvements scheduled by 2012, but does not show intersection improvements for the roadways that would provide access to these buildable sites. The LOS for road access to the 10 candidate sites is listed in the following table.

Site No.	Location	Primary Access Road	2003 LOS for access road in peak PM hour
1	Lemon/Switzer Creek Above and to the west of DZ School	Renninger to Glacier Highway Egan Drive via Sunny Drive or Vanderbilt	Renninger Drive= unsignalized with no LOS data Egan at Vanderbilt= LOS C Egan at Sunny Drive= LOS F with interchange under construction
2	Mendenhall Peninsula	Glacier Hwy at Fritz Cove Road and at Engineers Cut-off Road	Glacier Hwy at Fritz Cove = LOS C Glacier Hwy at Engineers Cut-off = data not available Glacier Hwy at Industrial Road = LOS E Glacier Hwy at Vintage Blvd. = LOS F
3	North Douglas from Mile 2 through 6	North Douglas Highway to the JD Bridge and 10 th and Egan Drive	North Douglas Highway at Bridge was LOS F before the roundabout was built—no data since then. JD Bridge at 10 th and Egan = LOS E & F (depending upon time)
4	Petersen Hill east of Auke Lake	Glacier Hwy near Mendenhall Loop Road	Glacier Hwy at Industrial Road = LOS E Glacier Hwy at Vintage Blvd. = LOS F Mendenhall Loop Rd. at Floyd Dryden = LOS F Mend. Loop Rd. at Cinema Dr. = LOS F Mend. Loop Rd. at Nancy St. = LOS F Mend. Loop Rd. at James St. = LOS F
5	Thunder Mountain	Valley Blvd. or Threadneedle Rd. to Mendenhall Loop Road	Valley Blvd. signalized and no LOS data is available No data is available for Threadneedle but nearby unsignalized intersections Kimberly was at LOS B and Thunder Mountain was at LOS C.

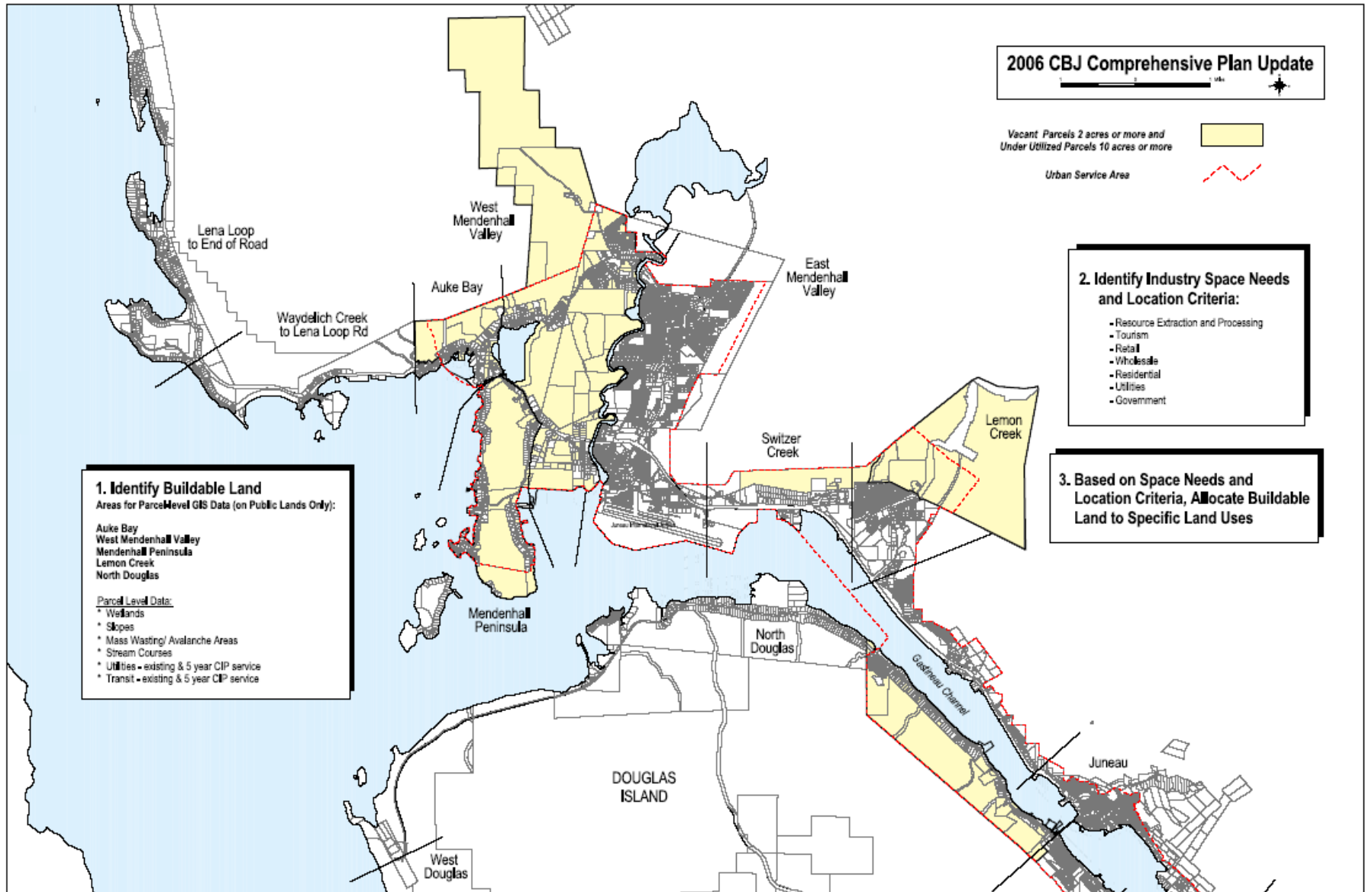
Site No.	Location	Primary Access Road	2003 LOS for access road in peak PM hour
6	Blueberry Hill	Cordova Street to Douglas Hwy to the JD Bridge	Cordova at Douglas Hwy = LOS D in 2003—could be worse now. JD Bridge at 10 th and Egan Drive = LOS E & F
7	Upper West Valley	Joanne and All Seasons Roads to Mendenhall Loop Road	Glacier Hwy at Industrial Road = LOS E Glacier Hwy at Vintage Blvd. = LOS F Mendenhall Loop Rd. at Floyd Dryden = LOS F Mend. Loop Rd. at Cinema Dr. = LOS F Mend. Loop Rd. at Nancy St. = LOS F Mend. Loop Rd. at James St. = LOS F
8	North Douglas	North Douglas Highway to the JD Bridge and 10th and Egan Drive	North Douglas Highway at Bridge was LOS F before the roundabout was built—no data since then. JD Bridge at 10th and Egan Drive = LOS F
9	Downtown Douglas	Fifth Street or Crow Hill to Douglas Hwy	JD Bridge at 10 th Egan Drive = LOS F
13	Across from UAS on Mendenhall Peninsula	Glacier Hwy	Glacier Hwy at Industrial Road = LOS E Glacier Hwy at Vintage Blvd. = LOS F

Two of the 10 candidate buildable sites, Sites 1 (Lemon/Switzer Creek/DZ) and 5 (Thunder Mountain), should be deemed suitable for residential development in the near future as they have a good amount of relatively flat, dry land and can be relatively easily accessed from collector or arterial roads with levels of service of “C” or better. Sites 2 (Mendenhall Peninsula--South) and 4 (Peterson Hill at Auke Bay) have some portions of the site that are relatively flat and dry, however steep terrain between the nearest public roadway and the site make access difficult and access arterial roadways have degraded levels of service at LOS “F”.

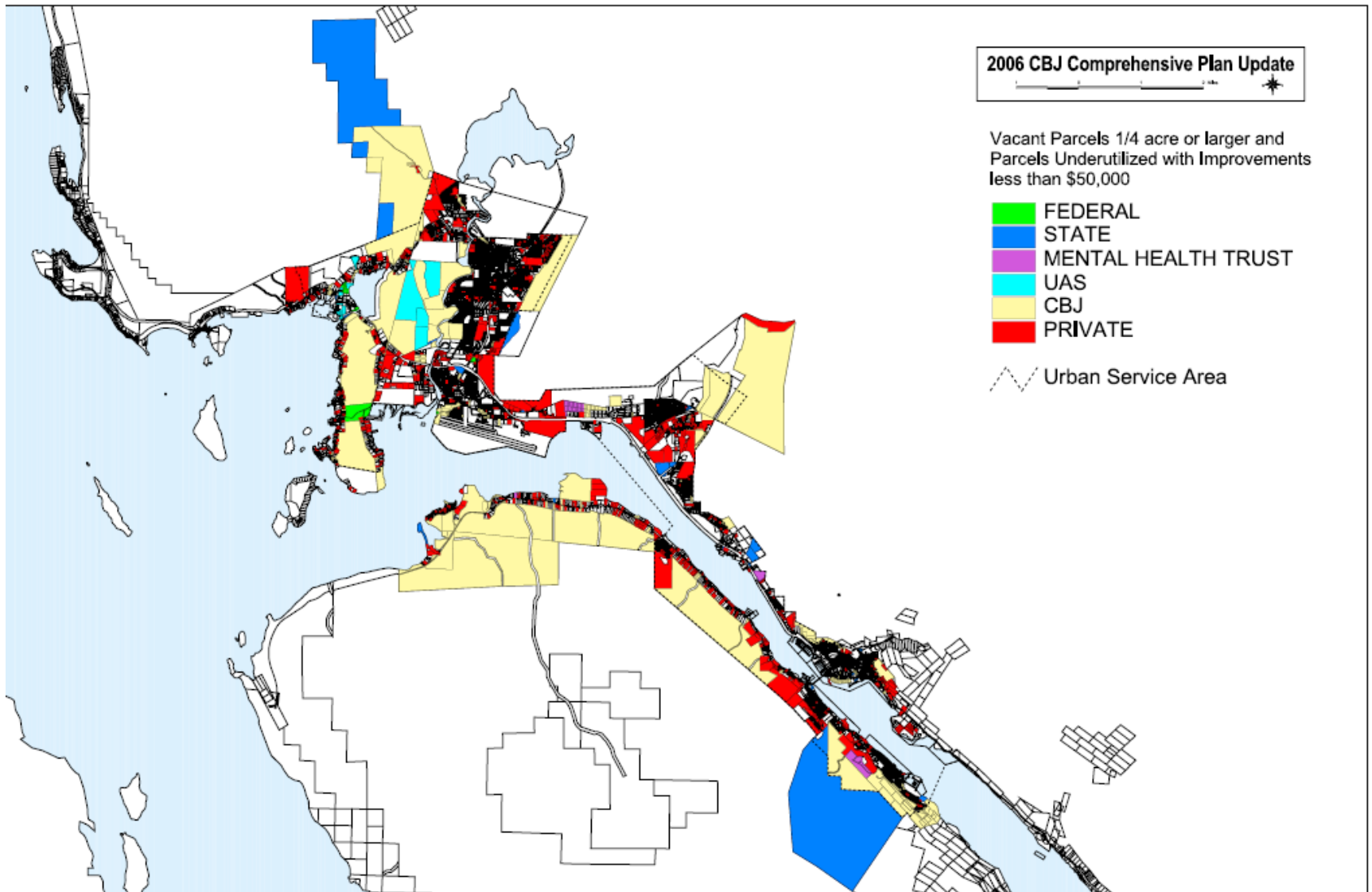
CDD staff approximation of buildable land area on CBJ-owned land within the Urban Service Area, as part of the 2006 CDD Buildable Sites Study.

Site No.	Location	CBJ-owned parcel size, in acres	Approximate amount of percent Of buildable* land area
1	Switzer Creek/Lemon Creek	739 acres, includes land around D-Z school	100 acres, less 30 acres for new elementary school and covered playground. Need to replace trails: Total about 60 acres available for residential development.
2	Mendenhall Peninsula	676, excludes lands in Smugglers Cove and waterfront lands	10% of the northern portion and 50% of the southern portion for a total of about 75 acres of buildable land area
3	North Douglas, north of JD Bridge	654 acres	10% or about 65 acres of buildable land area
4	Petersen Hill	443, less the greenbelt area from lake shore to ridge	15% or about 66 acres
5	Under Thunder Mountain	226	50% including the avalanche hazard area: only about 20% outside the hazard areas, for about 20 to 45 acres of buildable land
6	Blueberry Hill, West Juneau	194	Less than 10% or a total of about 20 acres of buildable land
7	Upper West Valley	180	Perhaps 20%, need to cross wetlands to access about 36 acres of buildable land
8	North Douglas at Fish Creek	90	90% or about 80 acres of buildable land when sewer and roads are extended to area
9	Crow Hill in Douglas	32, less greenbelt area	Perhaps 10% or about 3 acres
10	Salmon Creek	13	None, too steep
11	Lemon Creek industrial zone	16	None, Class A wetlands
12	Salmon Creek	24	None, too steep
Total estimated buildable land on 9 CBJ sites			450 acres

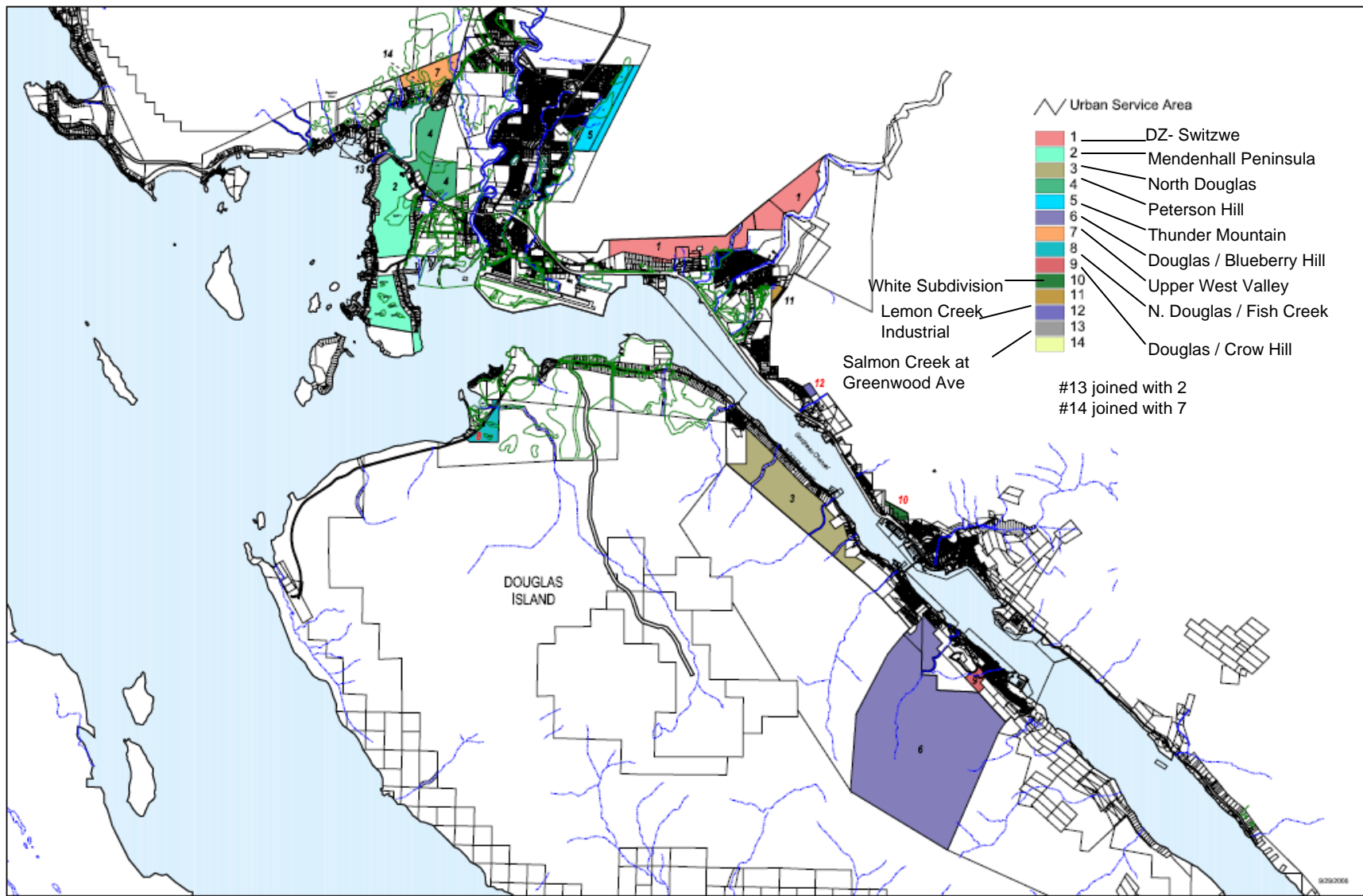
*Buildable land is less than 18% slopes and absence of Class A and B wetlands



Community Development Department (CDD) Staff first looked at vacant & underused parcels of 2 acres or more within the Urban Service Area (USA) as candidate buildable sites



During neighborhood outreach meetings, citizens asked staff to look at smaller sites and focus on in-fill development, rather than expand into undeveloped areas—staff looked at vacant and underused parcels on 1/4 acres or more



Excluding CBJ-owned parcels that are designated for commerce, industry, parks or open space, staff looked at 30+ sites and, eliminating steep slopes and avalanche hazard areas, selected 14 sites for wetlands analysis.

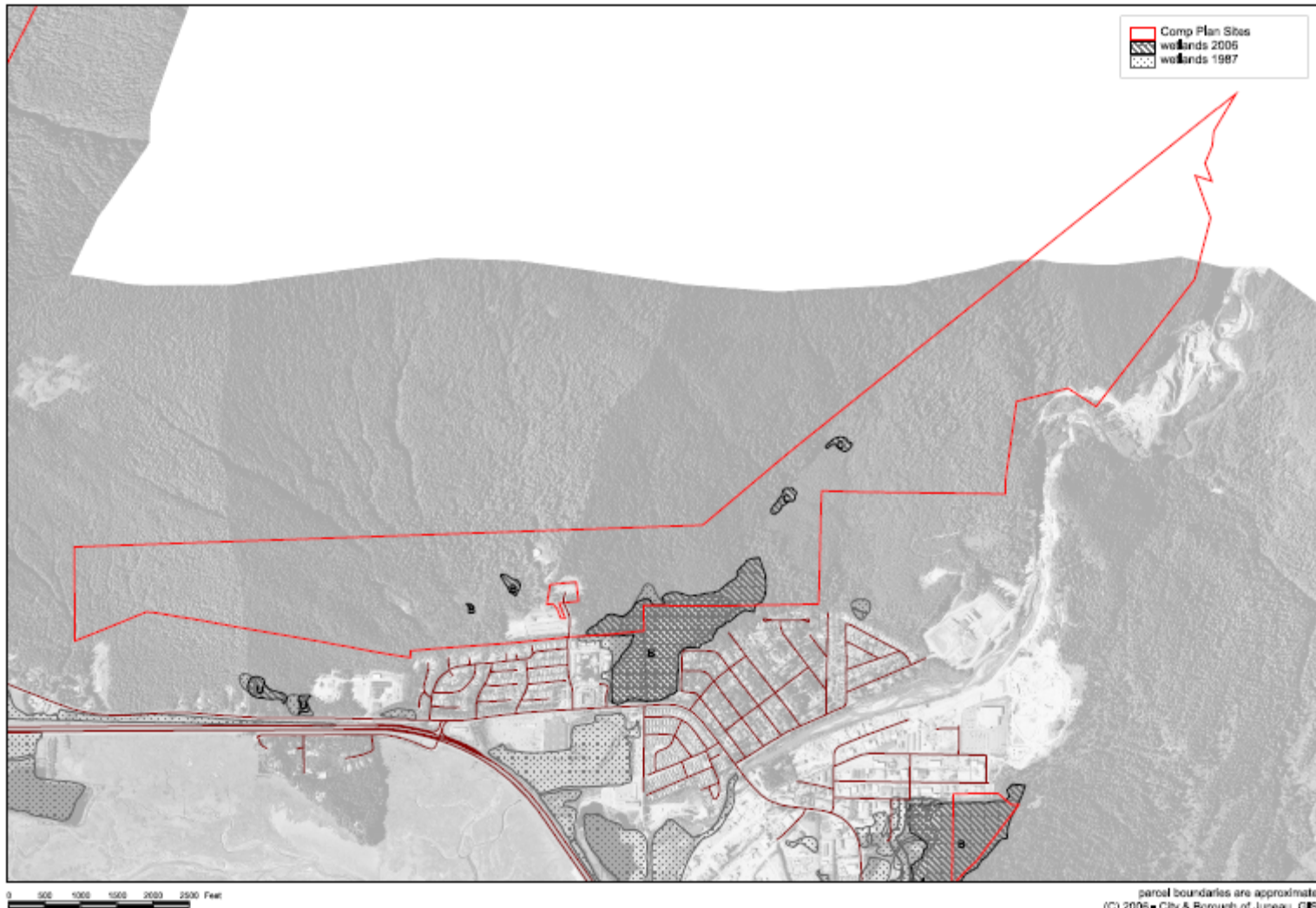
Buildable Sites Wetlands Delineation Team:
CBJ—Teri Camery, Bruce Simonson, Gary Vetesy, Susana Montana, Jeanette St. George
Consultant-- Koren Bosworth, Bosworth Botanical Consulting &
Paul Adamus of Adamus Resource Assessment, Inc.



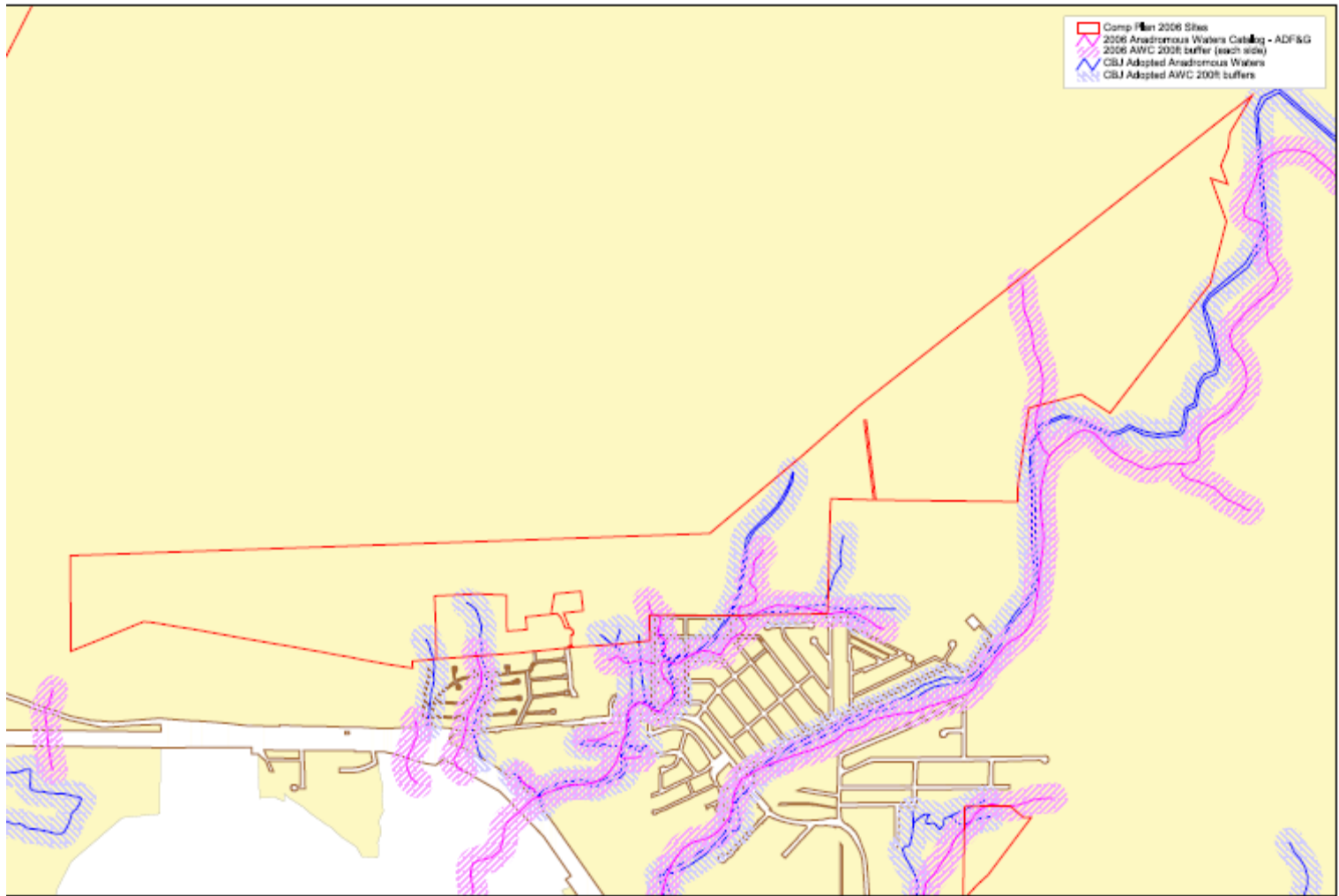
Site 1 – Above and west of DZ School

Total area 779 acres; buildable area about 100 acres

Site 1
Buildable Sites Study - Wetlands Review
CBJ Comp Plan Update 2006



Full extent shown here—greater detail to come in later slides



500 1000 1500 2000 2500 Feet

parcel boundaries are approximate
(C) 2006 - City & Borough of Juneau, CBJ

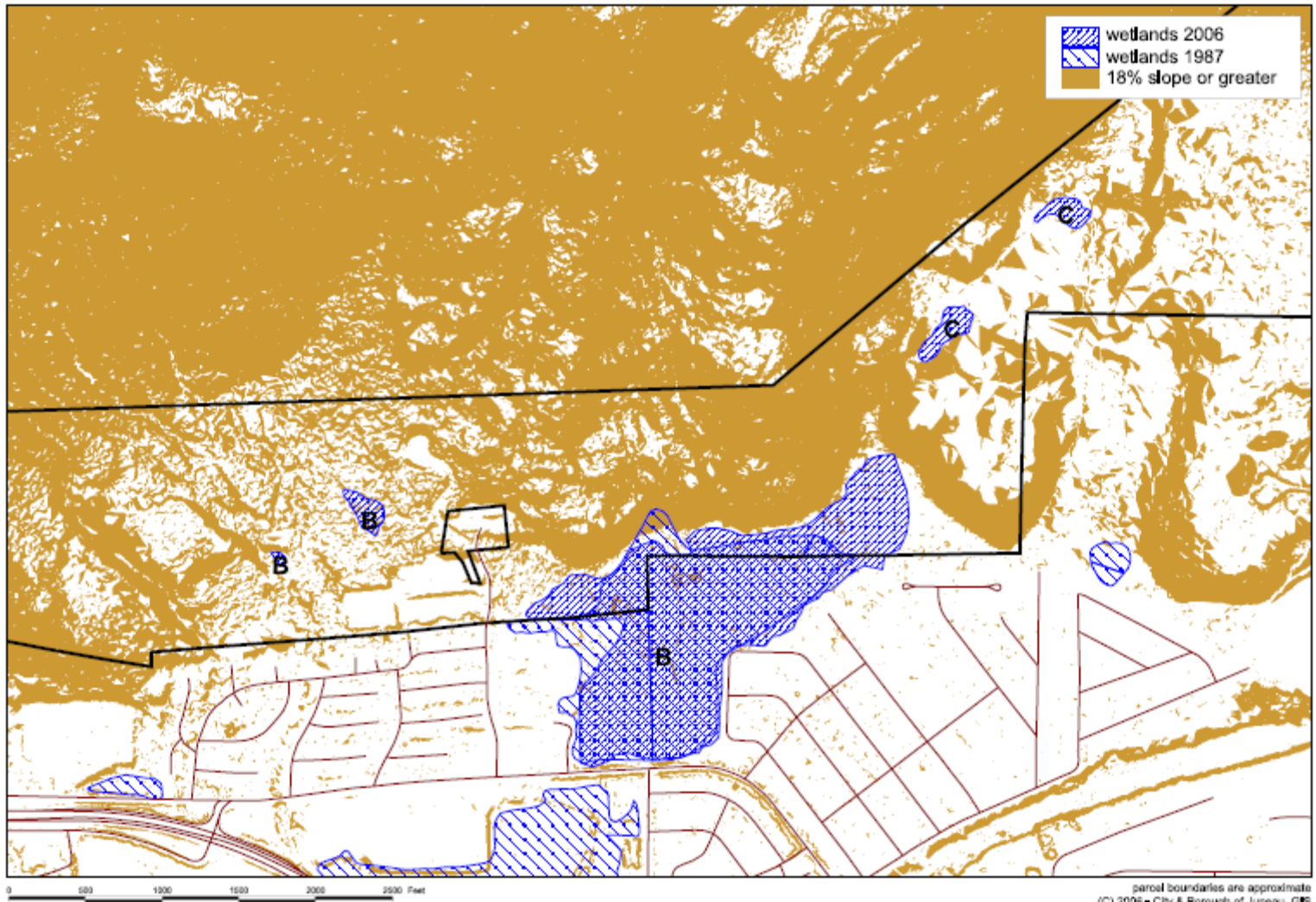
Site 1 – Above and to the west of DZ School

Site 1 detail
Buildable Sites Study - Wetlands Review
CBJ Comp Plan Update 2006

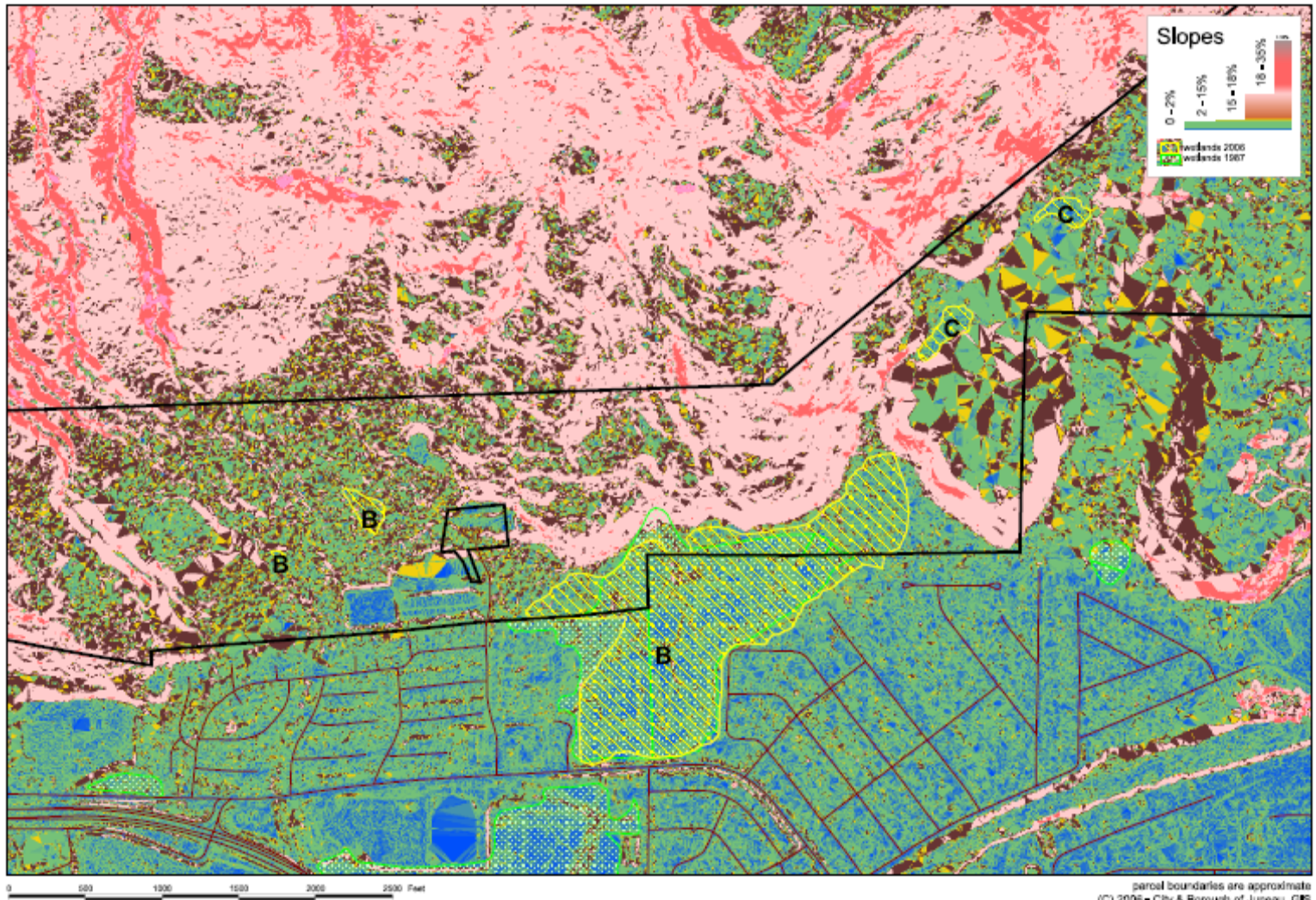


Greater detail shown here

Site 1 detail
Buildable Sites Study - Topography (LIDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006

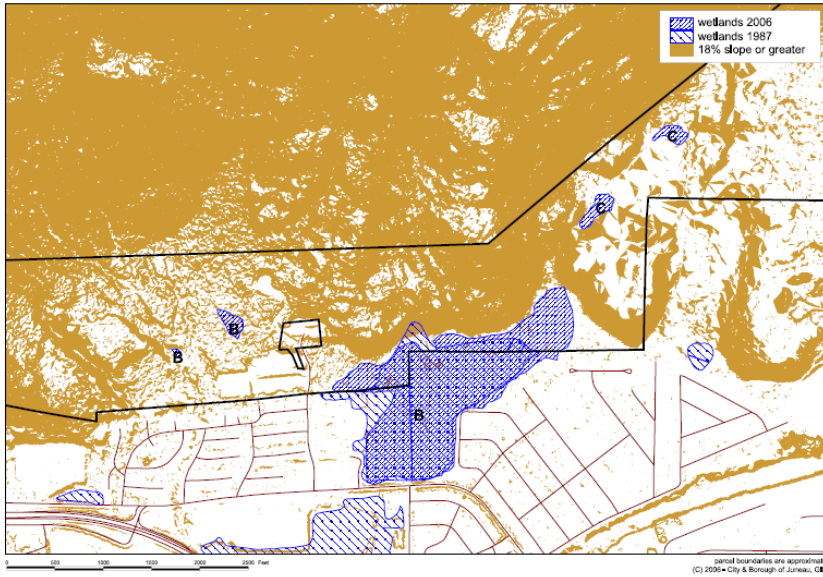


Site 1 detail
Buildable Sites Study - Preliminary Terrain Analysis
CBJ Comp Plan Update 2006

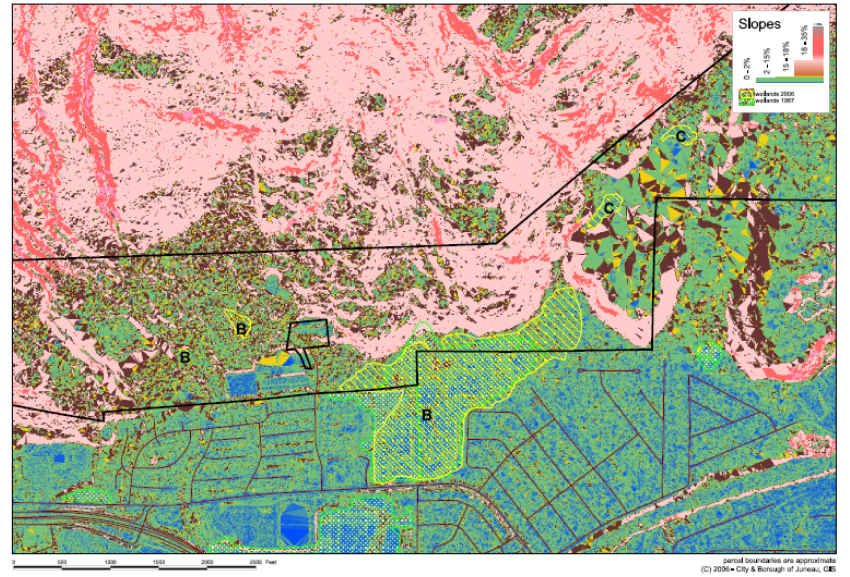


Slopes and wetlands on Site 1

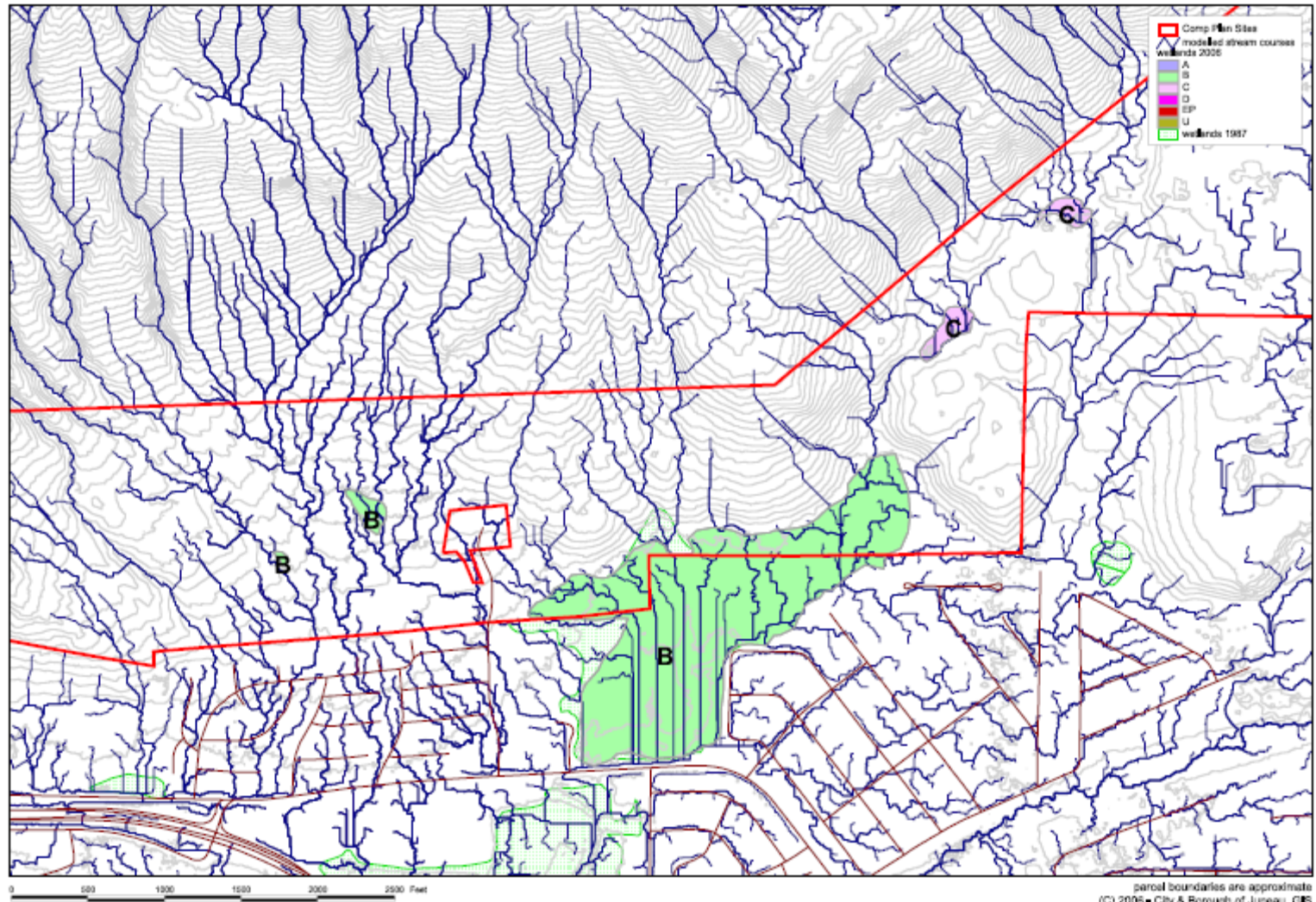
Site 1 detail
Buildable Sites Study - Topography (LIDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006



Site 1 detail
Buildable Sites Study - Preliminary Terrain Analysis
CBJ Comp Plan Update 2006



Site 1 theoretical drainage

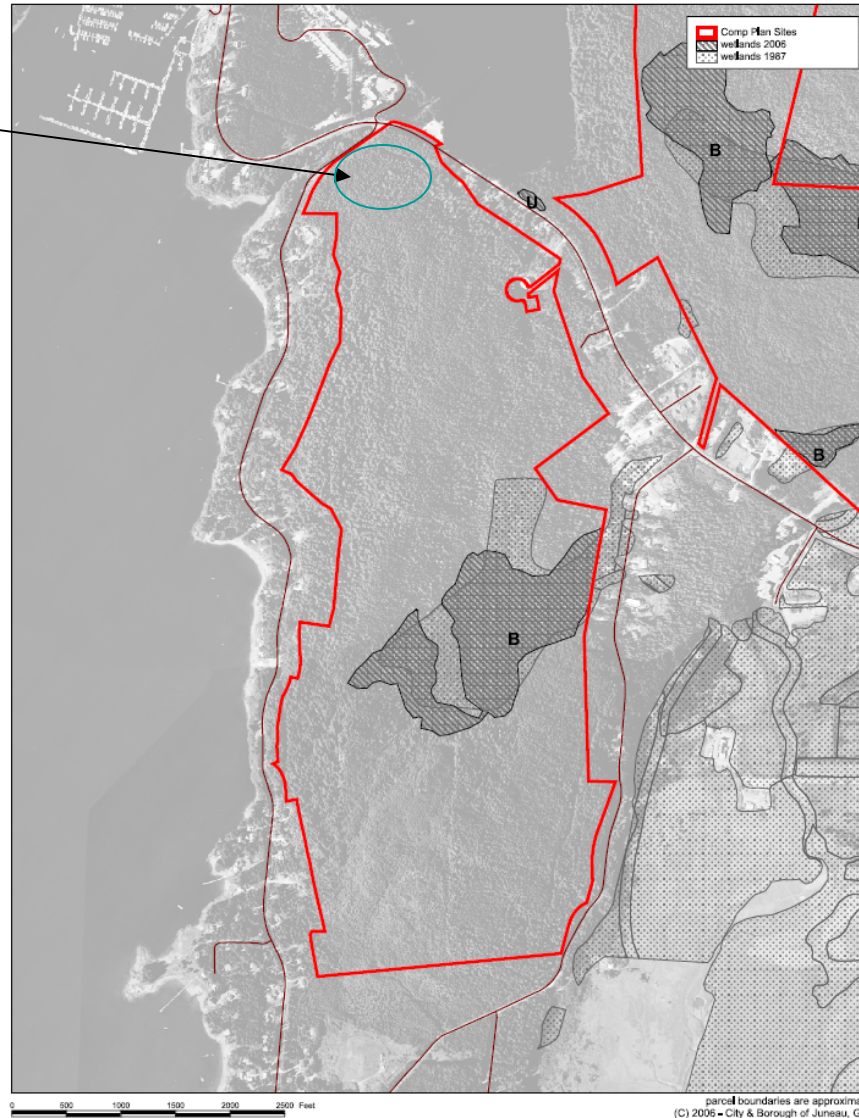


Site 2 – Mendenhall Peninsula -- North

665 total acres

Site 2n
Buildable Sites Study - Wetlands Review
CBJ Comp Plan Update 2006

Site 13

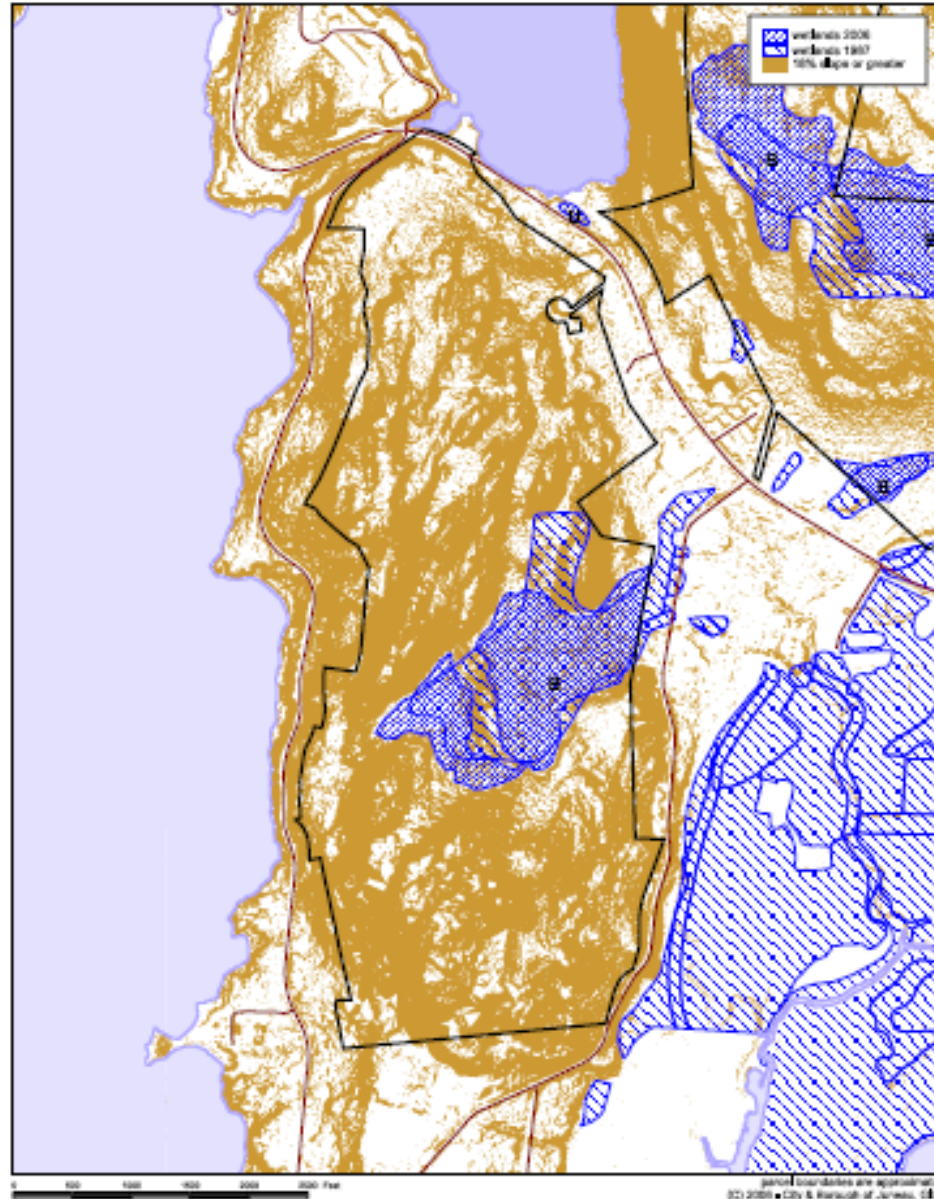


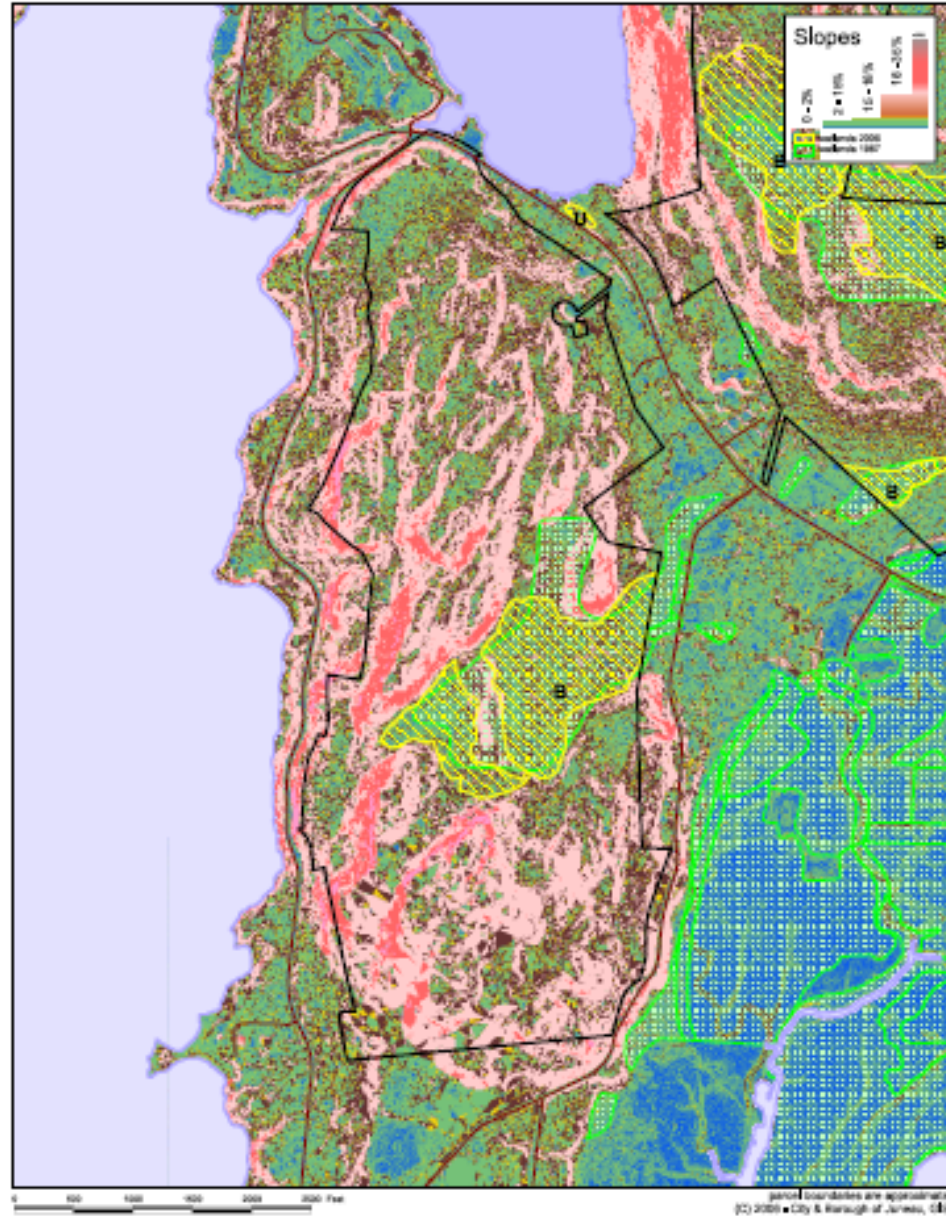
Comp Plan:

Site 13: IPU
Site 2 : RD

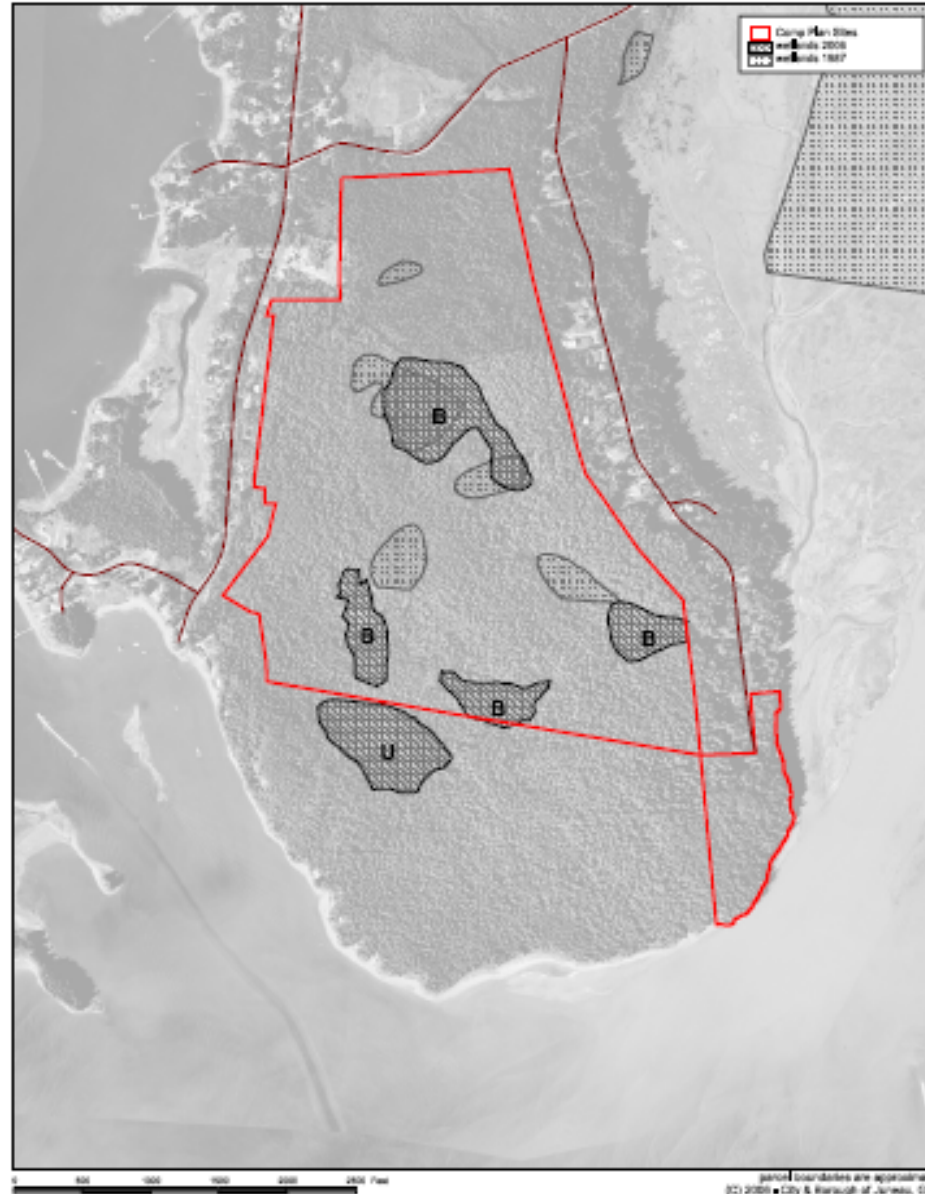
Zoning:

Site 13: D1 (T) D-3
Site 2: D1 (T) D-3 north
RR south



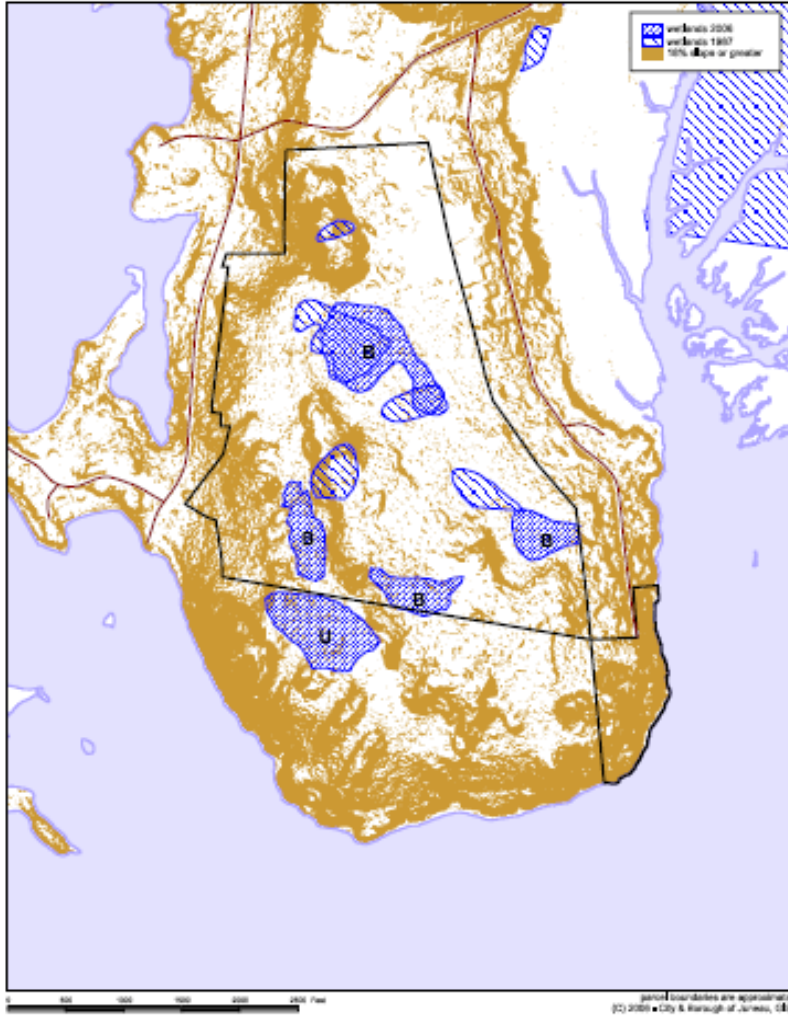


Mendenhall Peninsula -- South

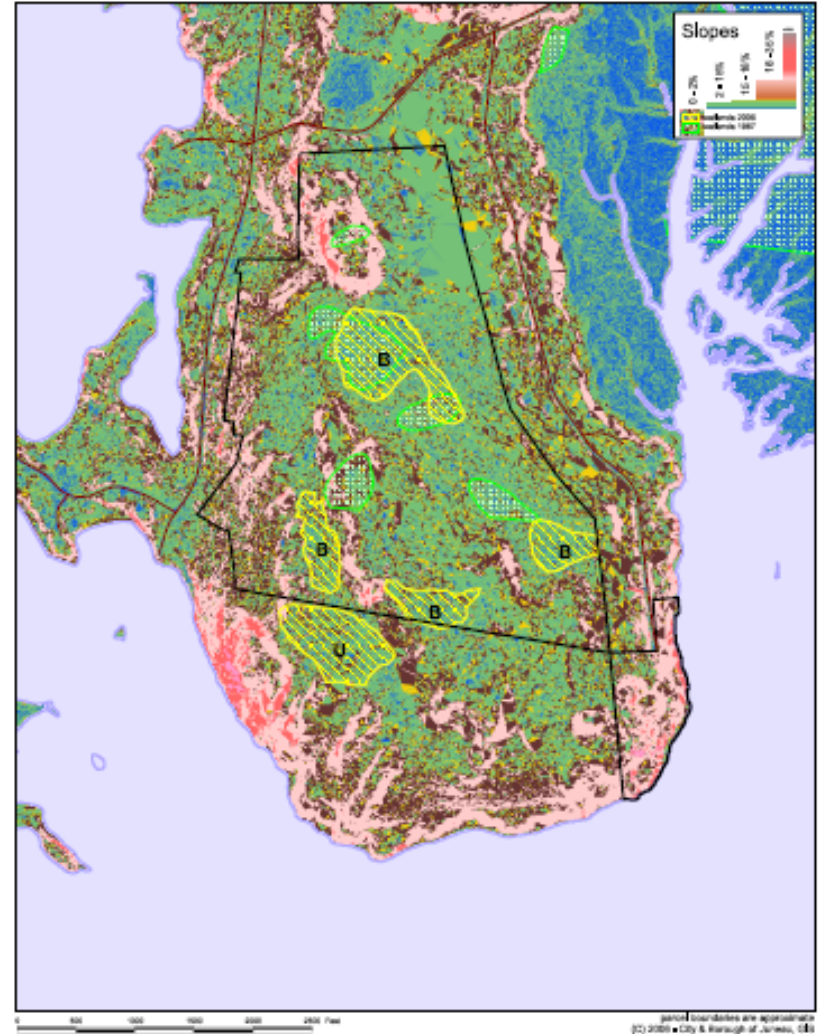


Site 2 North—Mendenhall Peninsula

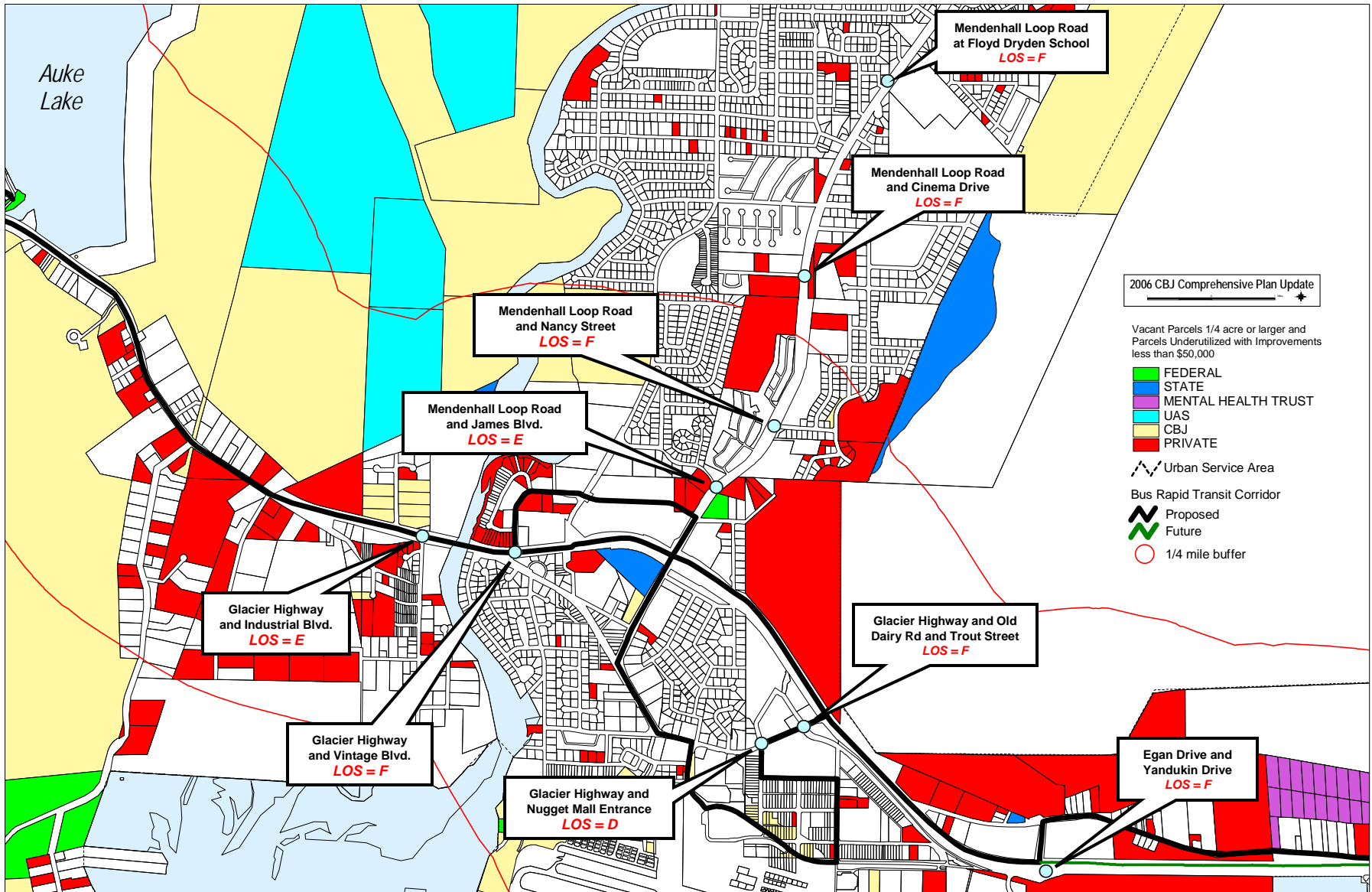
Site 2s
Buildable Sites Study • Topography (LIDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006



Site 2s
Buildable Sites Study • Preliminary Terrain Analysis
CBJ Comp Plan Update 2006

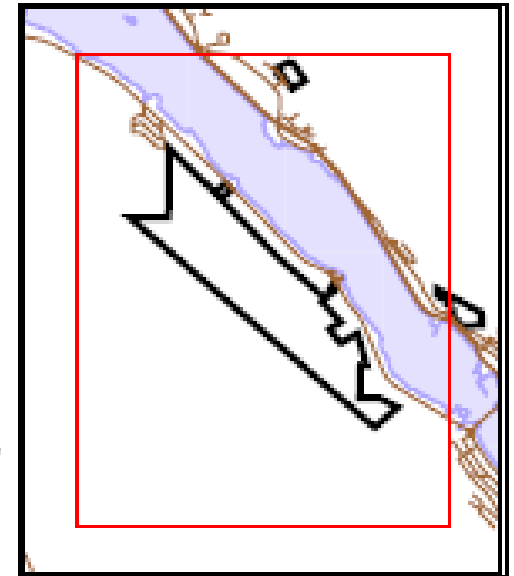


Potential opportunity for “passive” industrial use like storage and/or for housing?

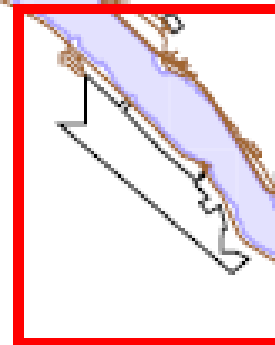


The CBJ-owned and private-owned vacant parcels in the Valley are served by 9 intersections with very poor levels of service (LOS D, E or F)

North Douglas from about Mile 1 to 6
654 acres

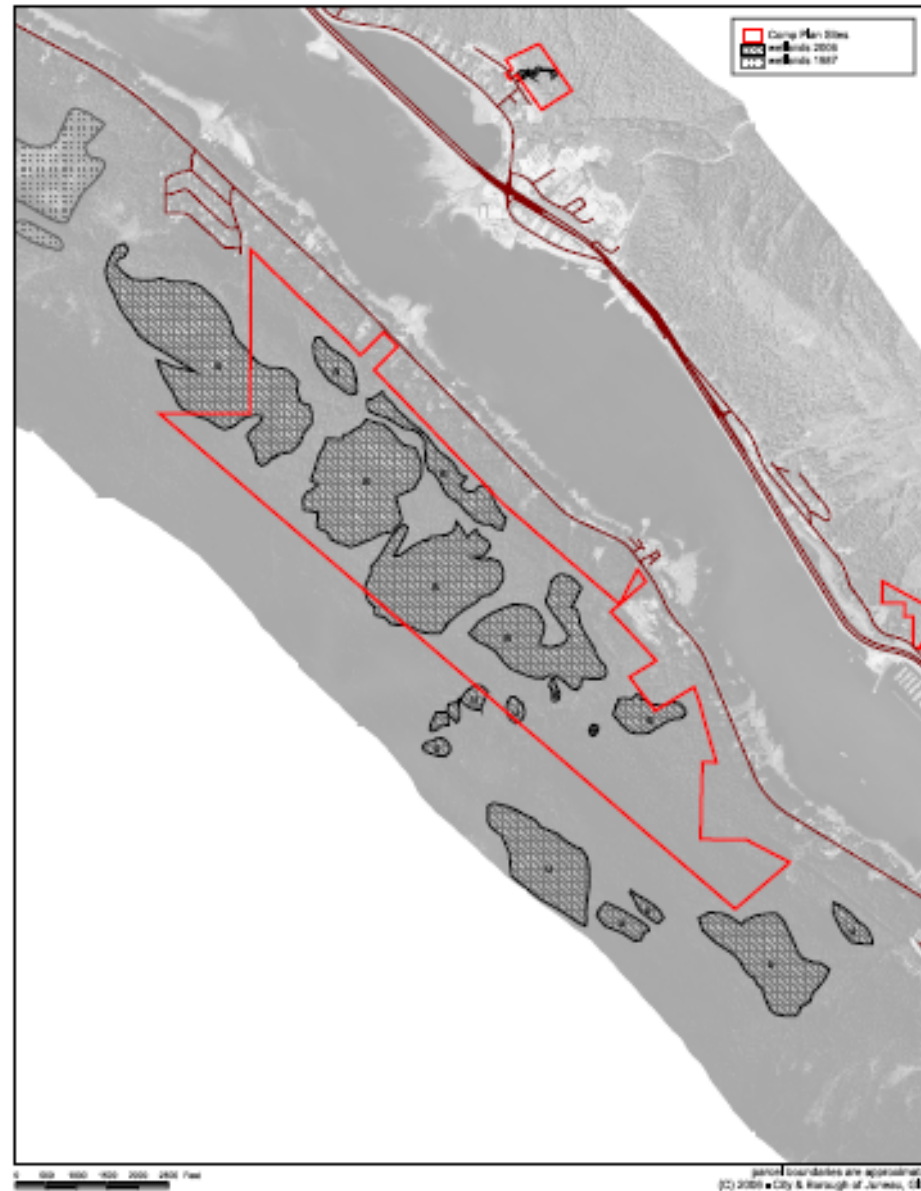


Site 3 Detail



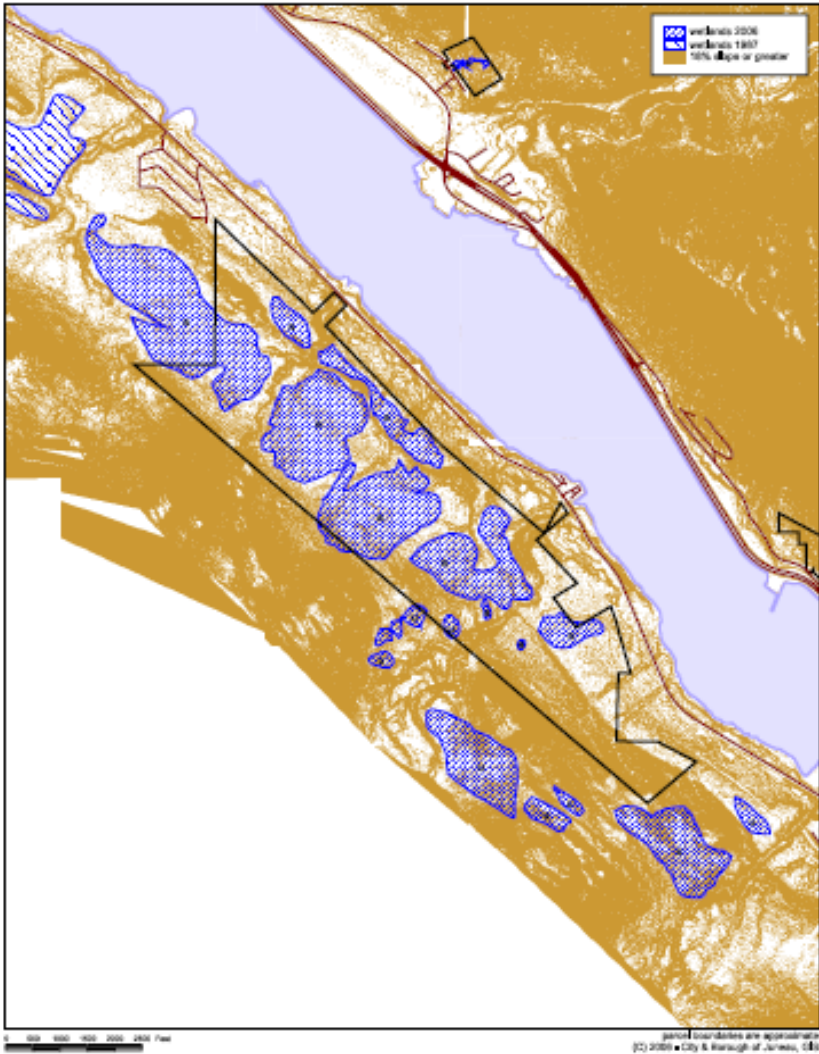
Site 3
Buildable Sites Study
CBJ Comp Plan Update 2006

Site 3 – North Douglas from Mile 1 to 6

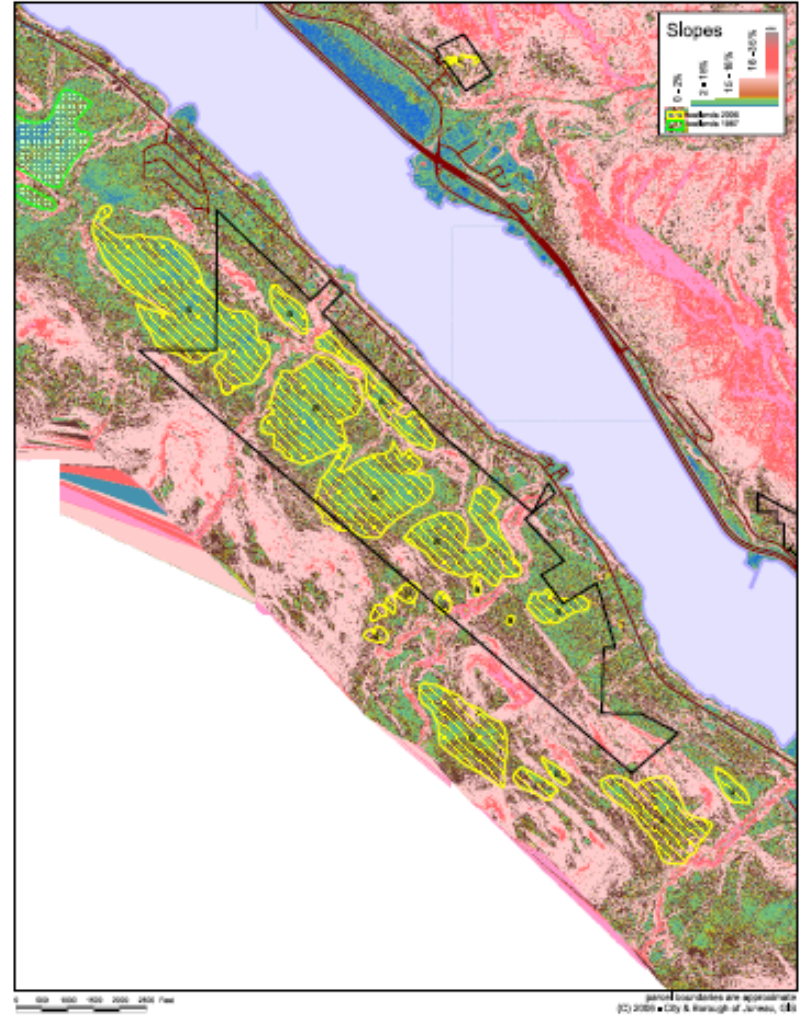


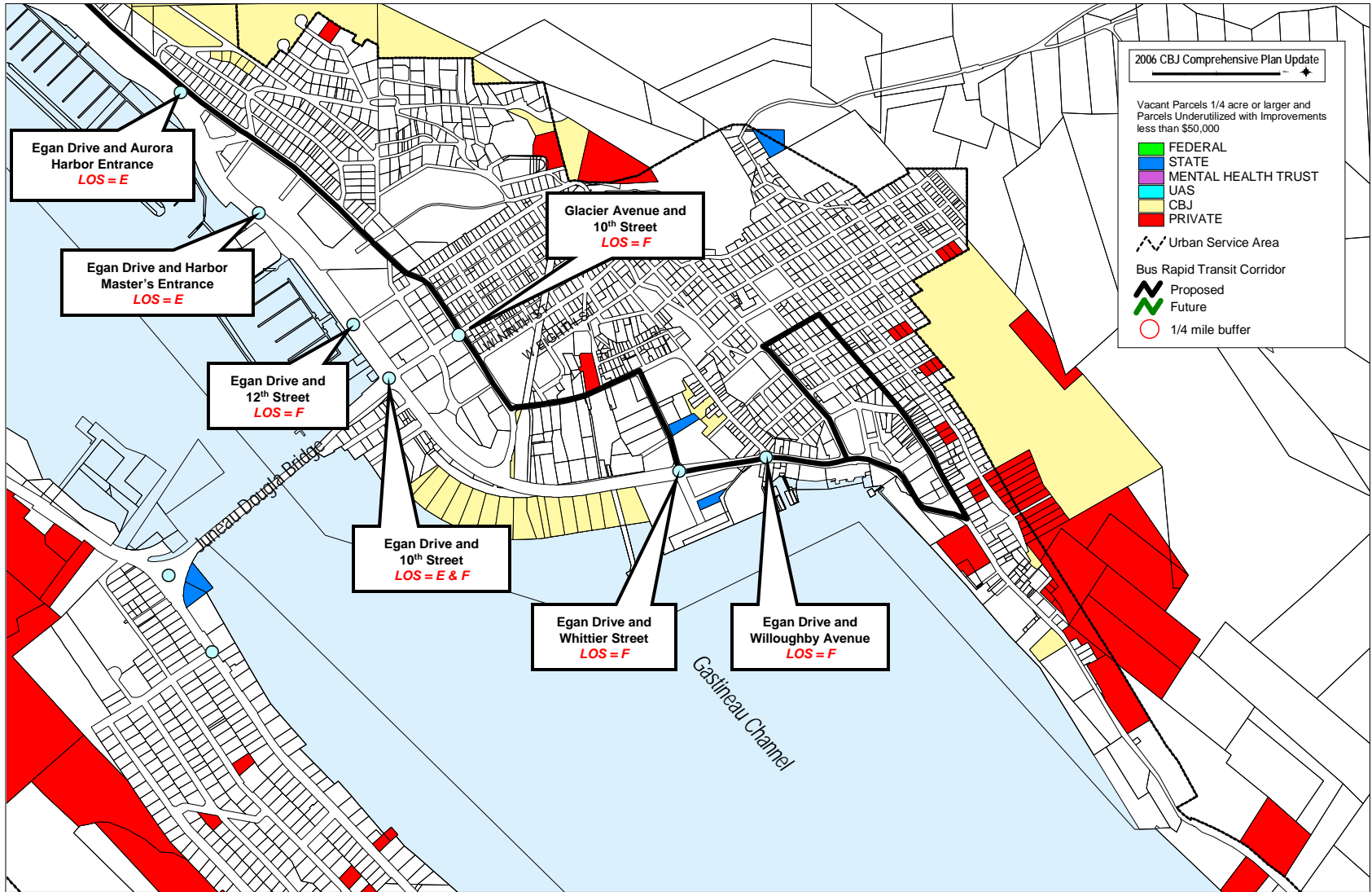
Site 3—North Douglas, about Mile 1 to 6

Site 3
Buildable Sites Study • Topography (LIDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006



Site 3
Buildable Sites Study • Preliminary Terrain Analysis
CBJ Comp Plan Update 2006

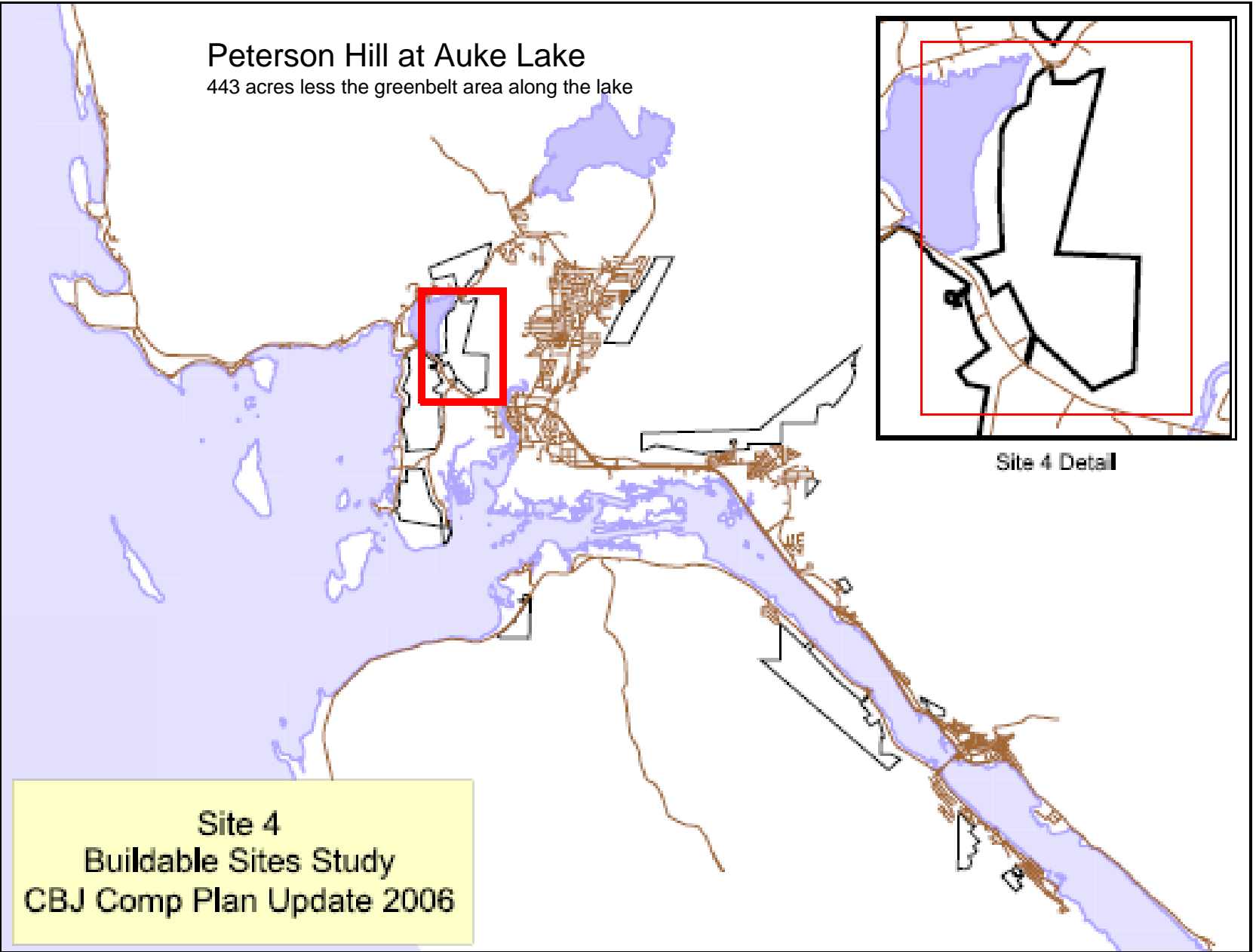




Douglas Island sites are served by 7 intersections with very poor levels of service (LOS E or F)

Peterson Hill at Auke Lake

443 acres less the greenbelt area along the lake

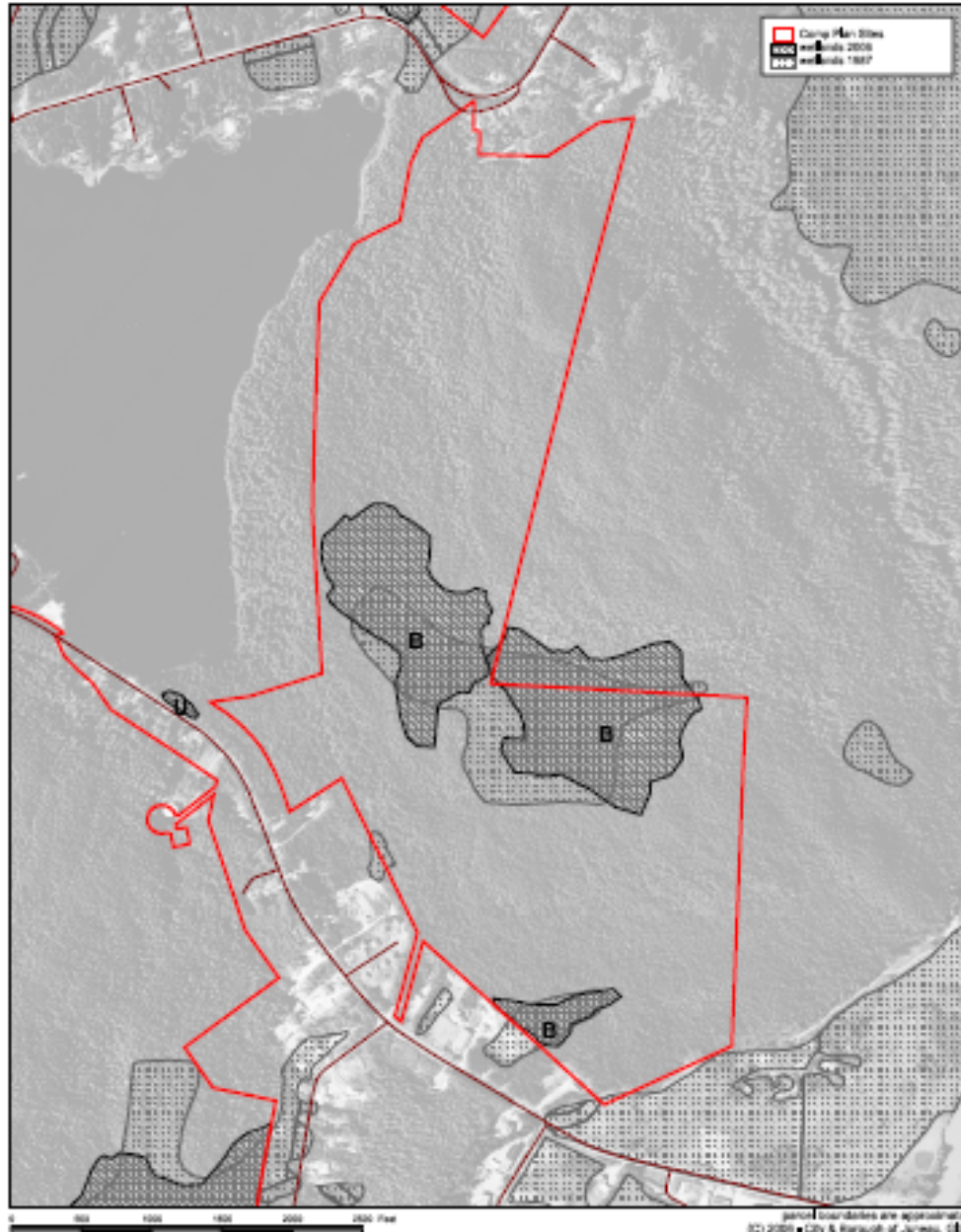


Site 4
Buildable Sites Study
CBJ Comp Plan Update 2006

Site 4 Detail

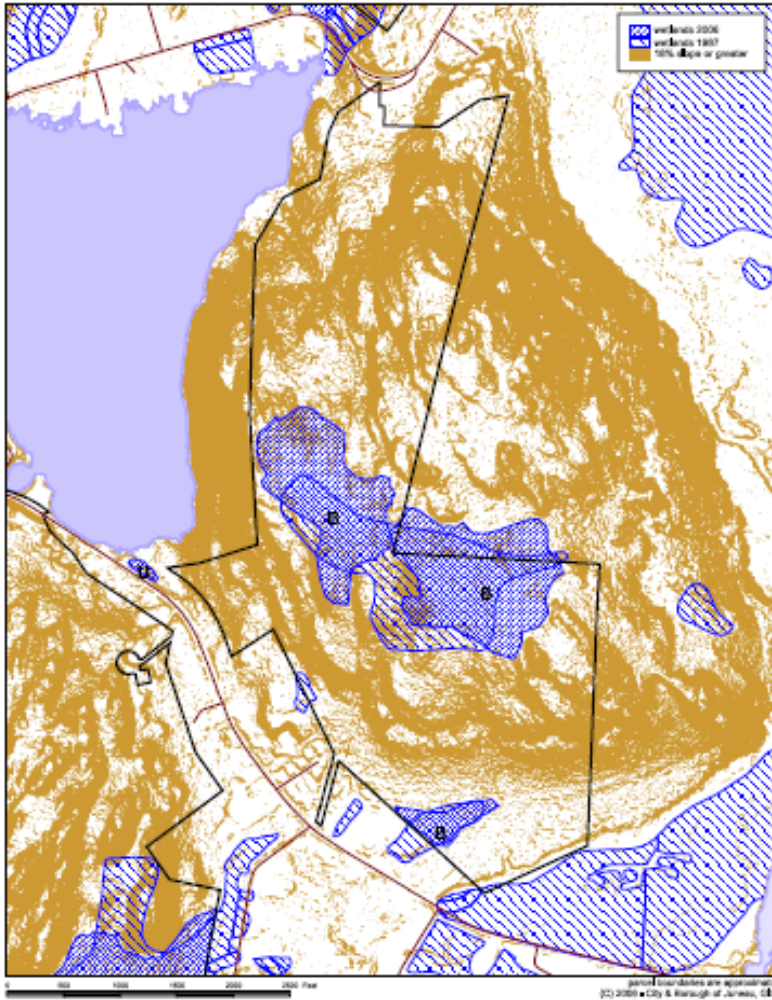
Comp Plan:
RDR (T) ULDR

Zoning:
D-1 (T) D-5

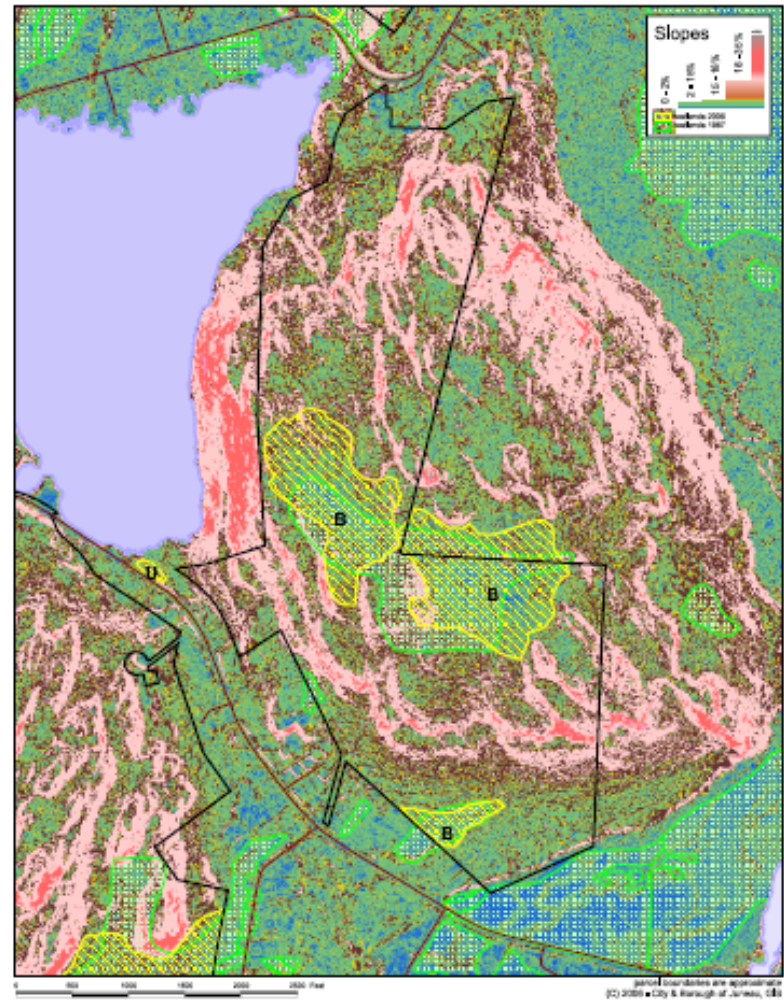


Site 4—Peterson Hill at Auke Lake

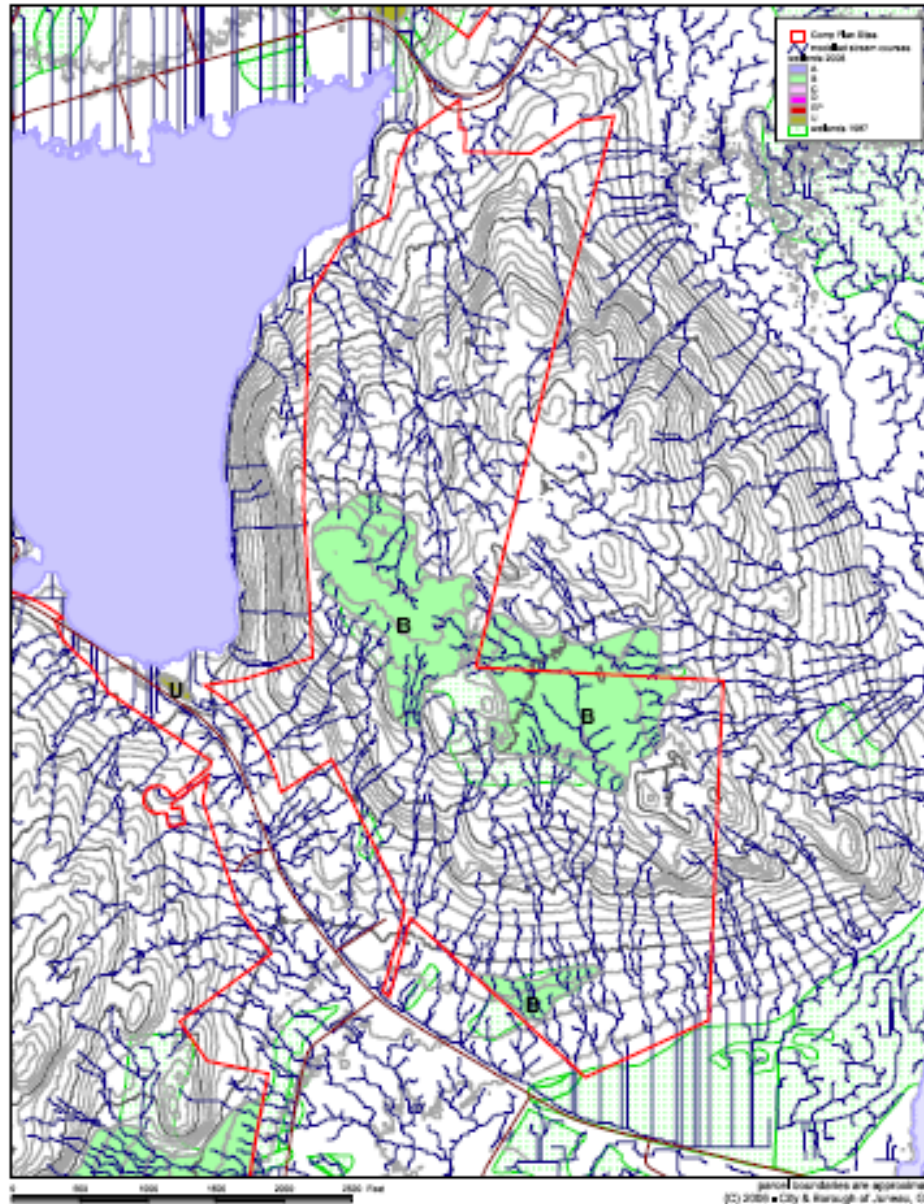
Site 4
Buildable Sites Study • Topography (LIDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006



Site 4
Buildable Sites Study • Preliminary Terrain Analysis
CBJ Comp Plan Update 2006



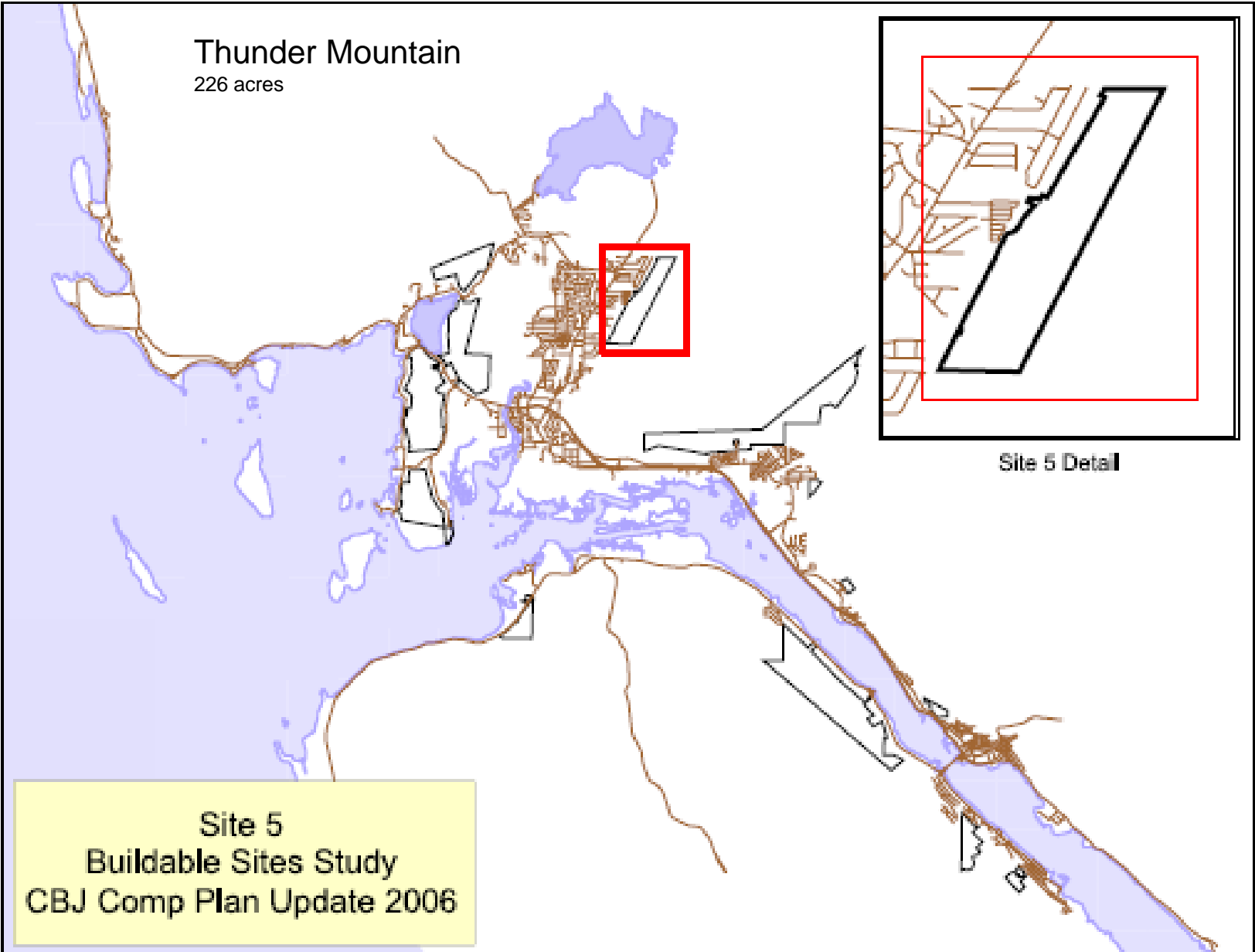
Theoretical Drainage



No on-site
Anadromous
streams

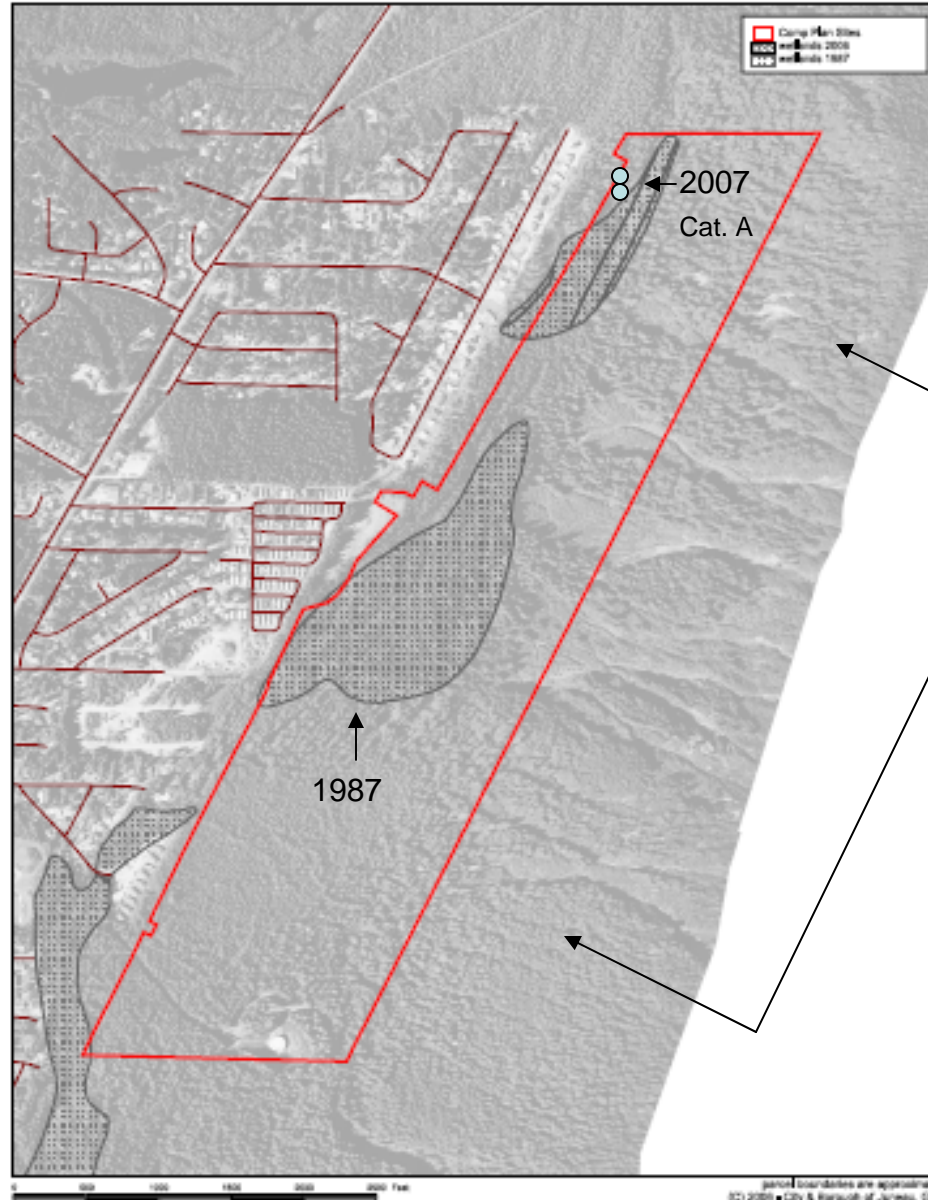
Thunder Mountain

226 acres



Site 5 Detail

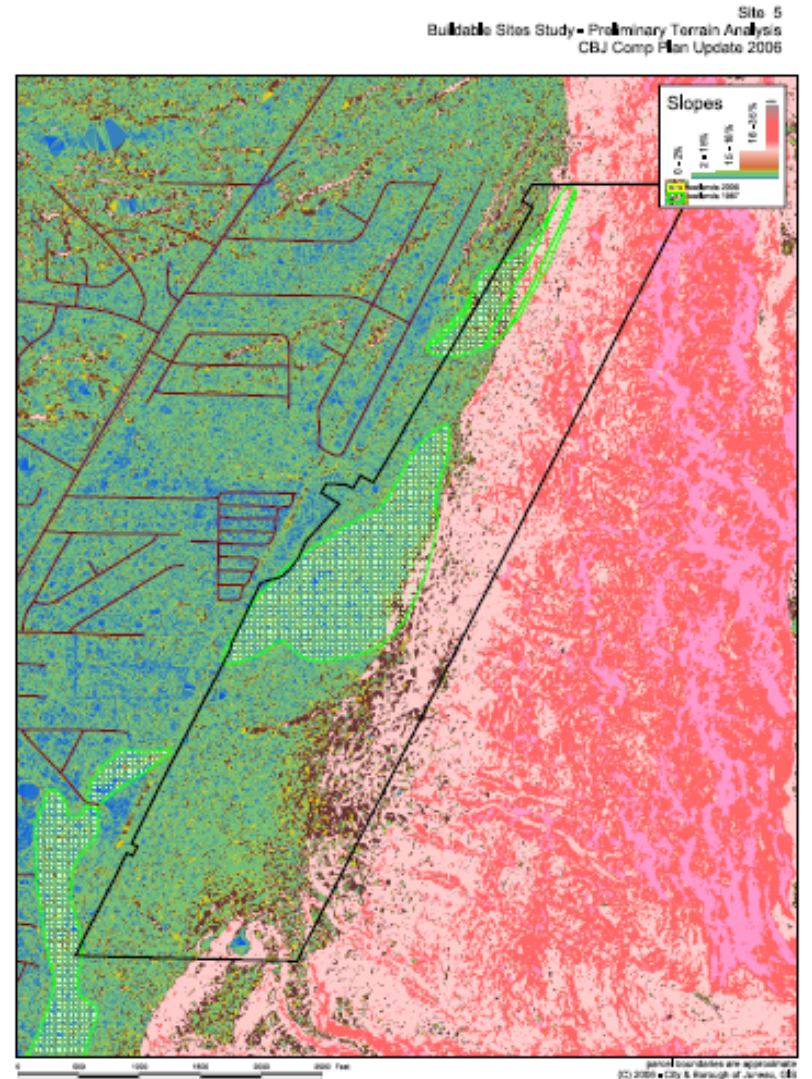
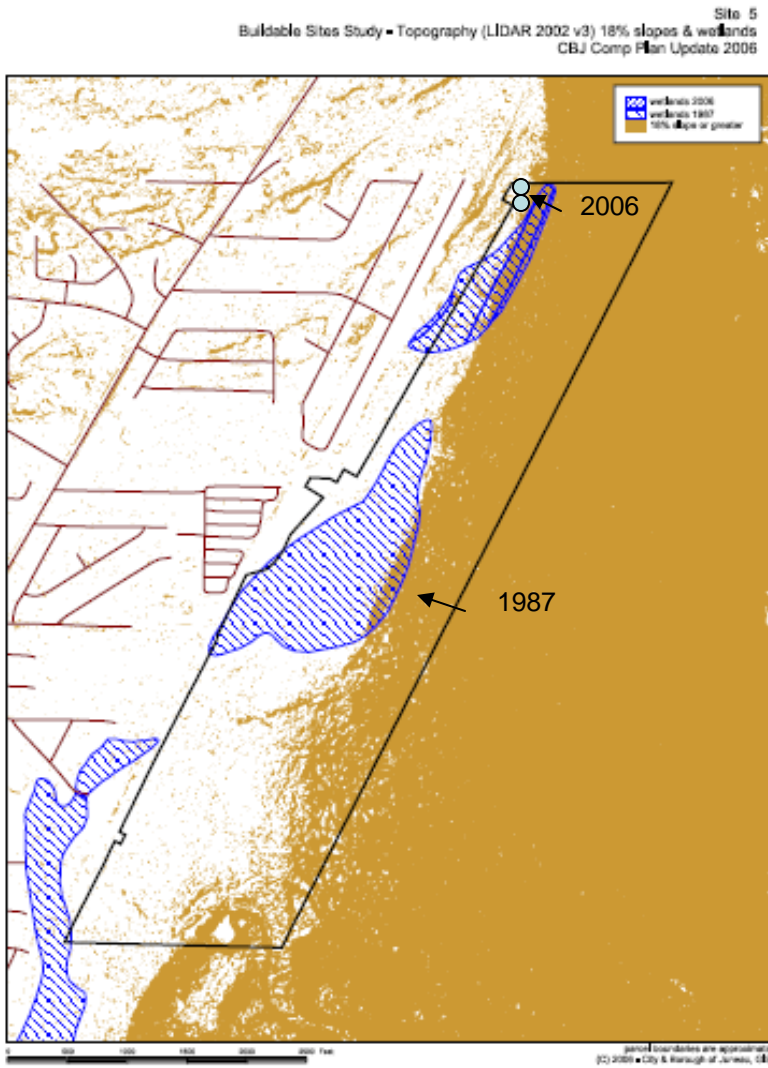
Site 5
Buildable Sites Study
CBJ Comp Plan Update 2006



Comp Plan:
ULDR

Zoning:
D-5

Site 5 – Thunder Mountain

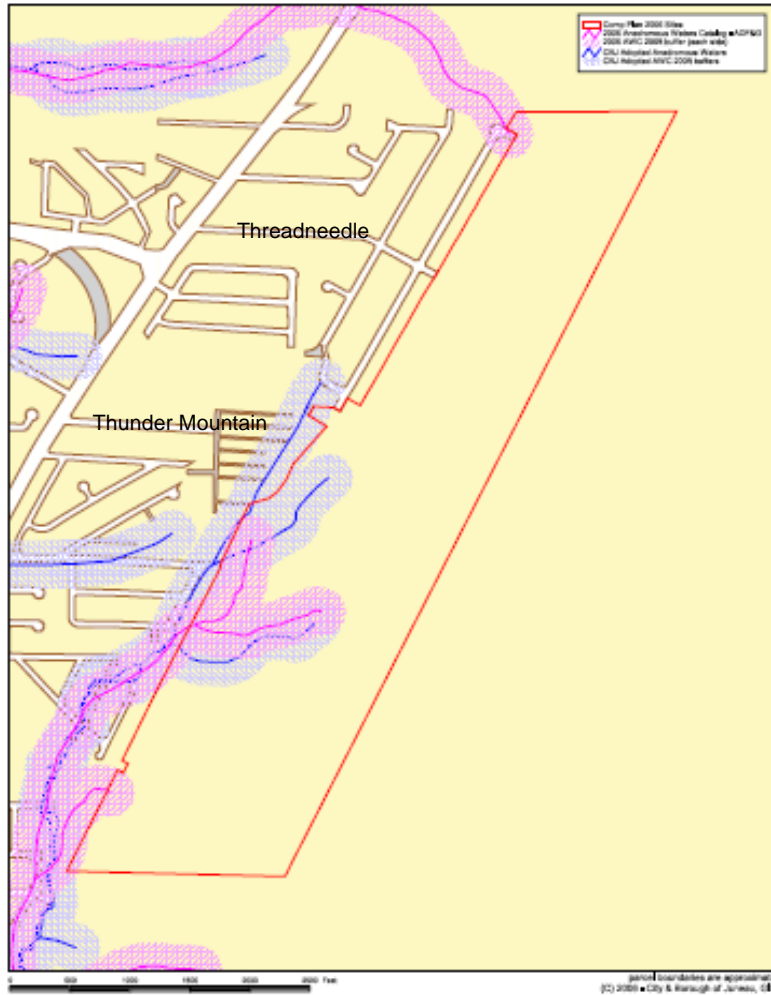


Need to conduct avalanche and mass-wasting potential hazard analysis

Site 6 – Thunder Mountain

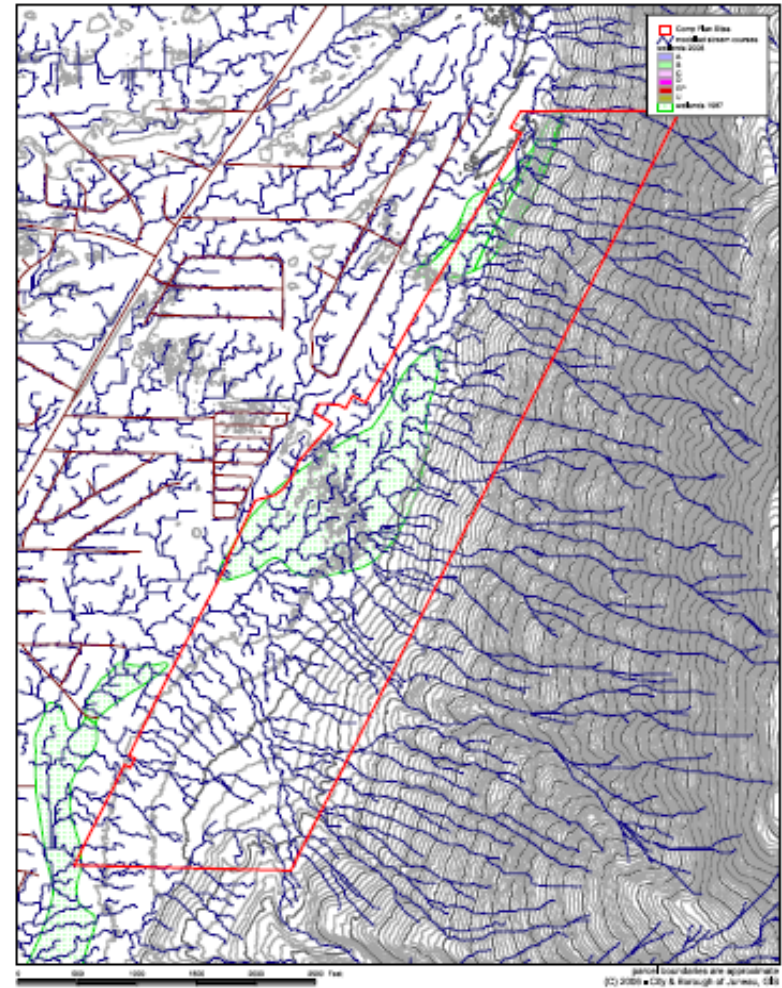
Anadromous Streams

Site 5
Buildable Sites Study - State and CBJ Anadromous Waters
CBJ Comp Plan Update 2006

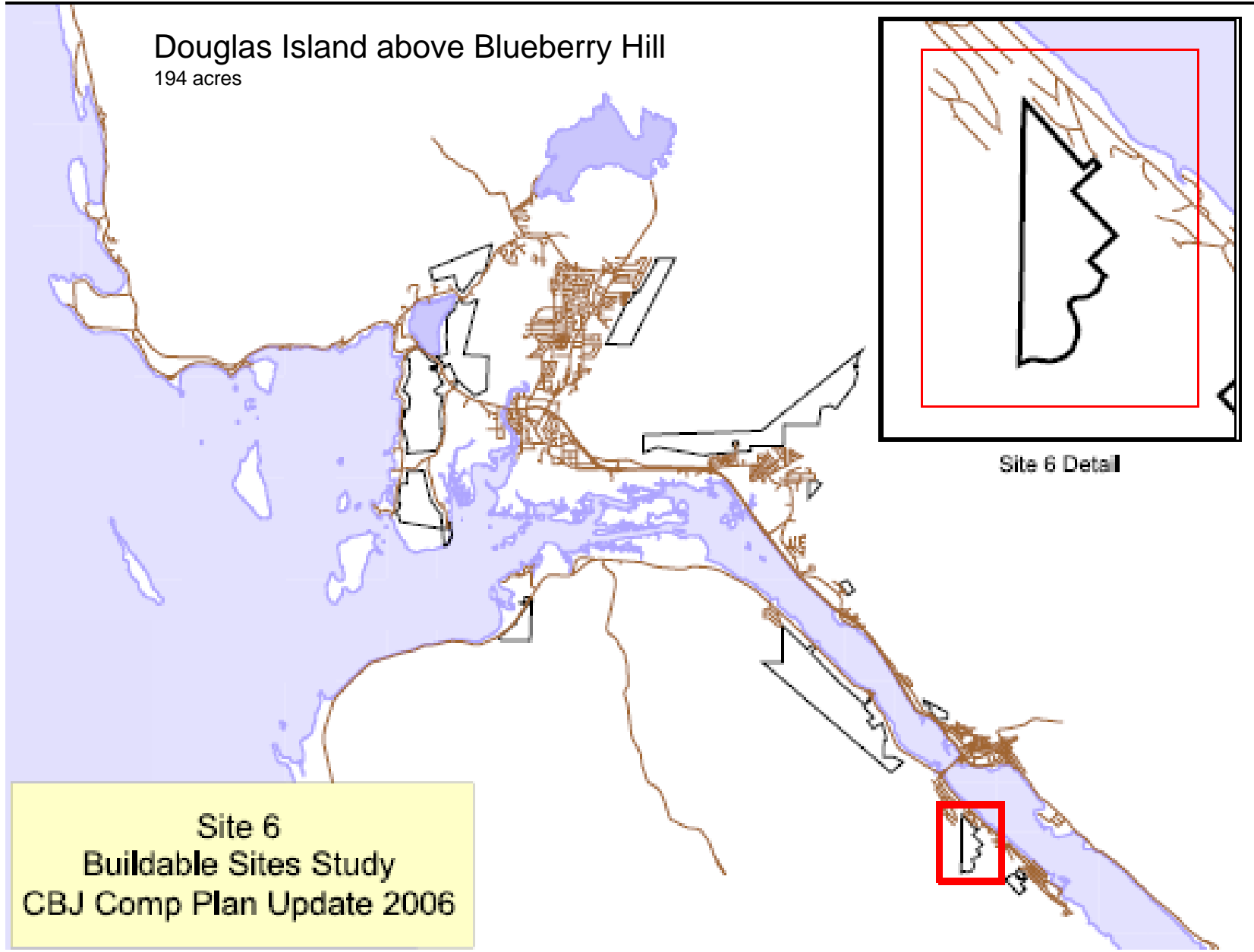


Theoretical Drainage

Site 5
Buildable Sites Study - Preliminary Modeled Streams and Drainage Analysis
CBJ Comp Plan Update 2006



Douglas Island above Blueberry Hill
194 acres



Site 6 Detail

Site 6
Buildable Sites Study
CBJ Comp Plan Update 2006

Site 6 – Douglas Island above Blueberry Hill off Jackson Rd.

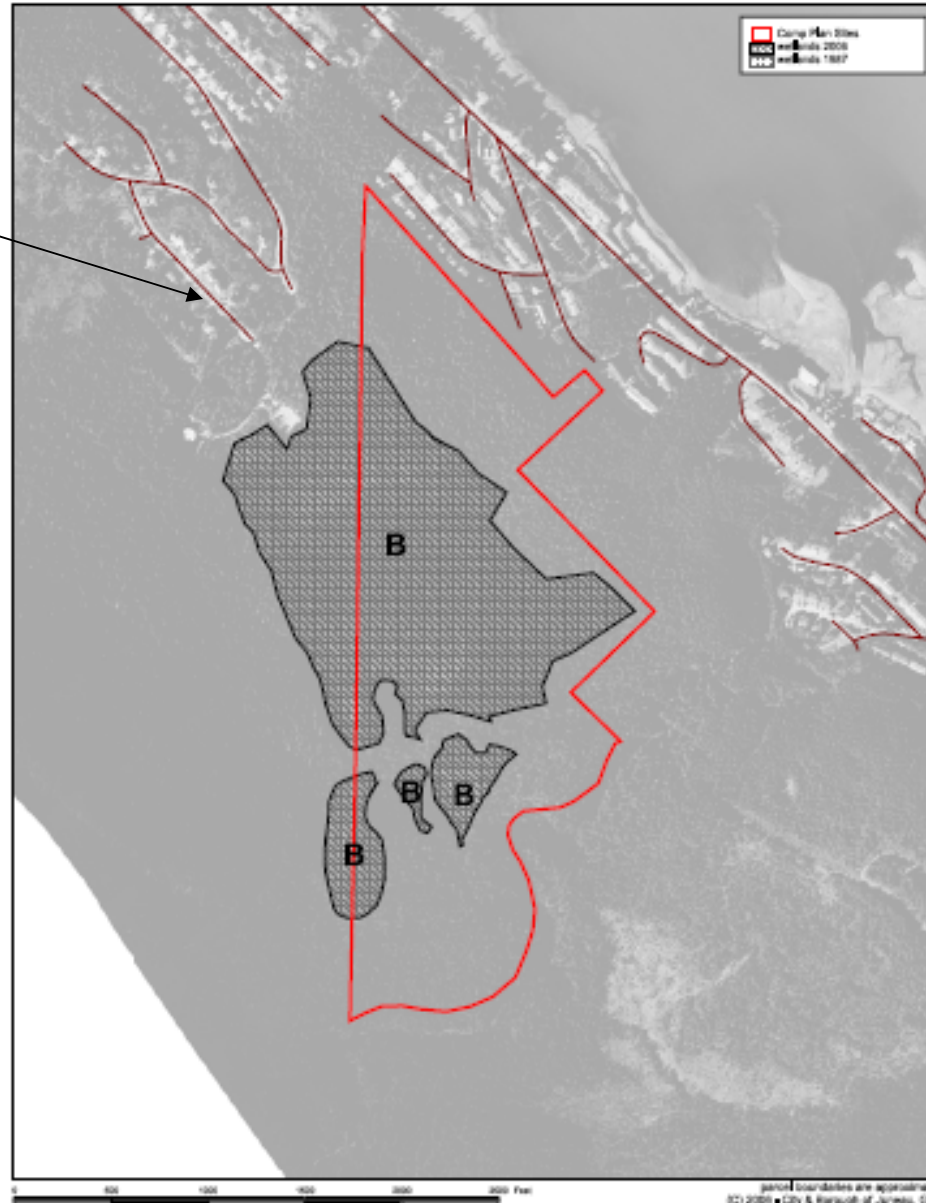
Site 6
Buildable Sites Study • Wetlands Review
CBJ Comp Plan Update 2006

Comp Plan Sites
2006
1997

Jackson Rd.

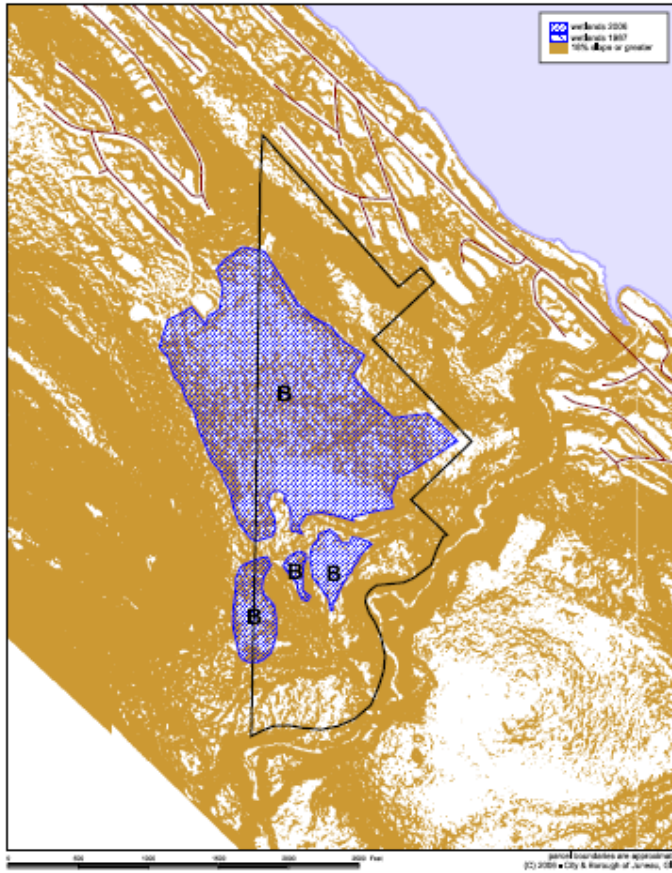
Comp Plan:
RD & REC

Zoning:
D-5 & RR

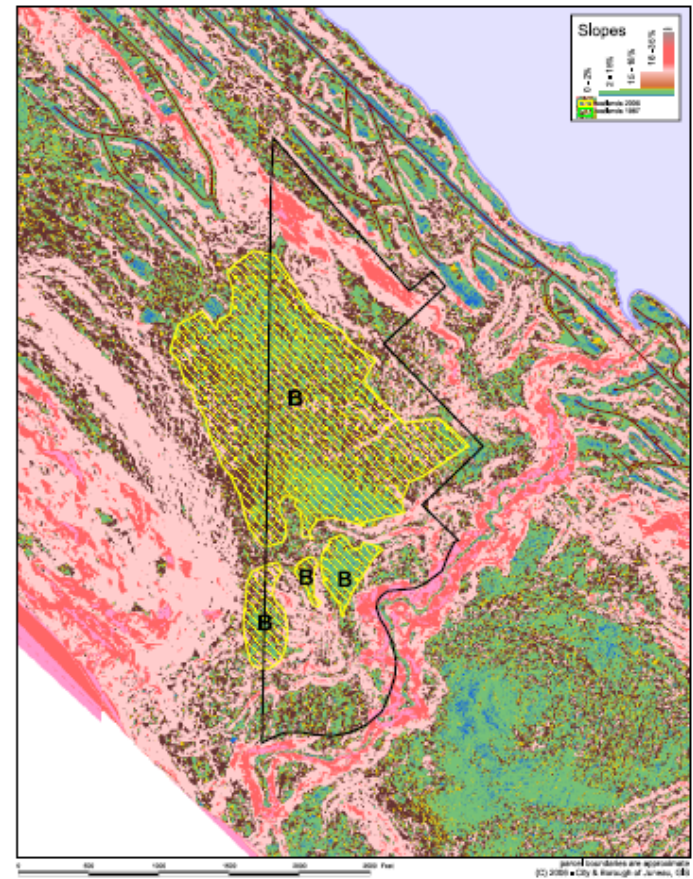


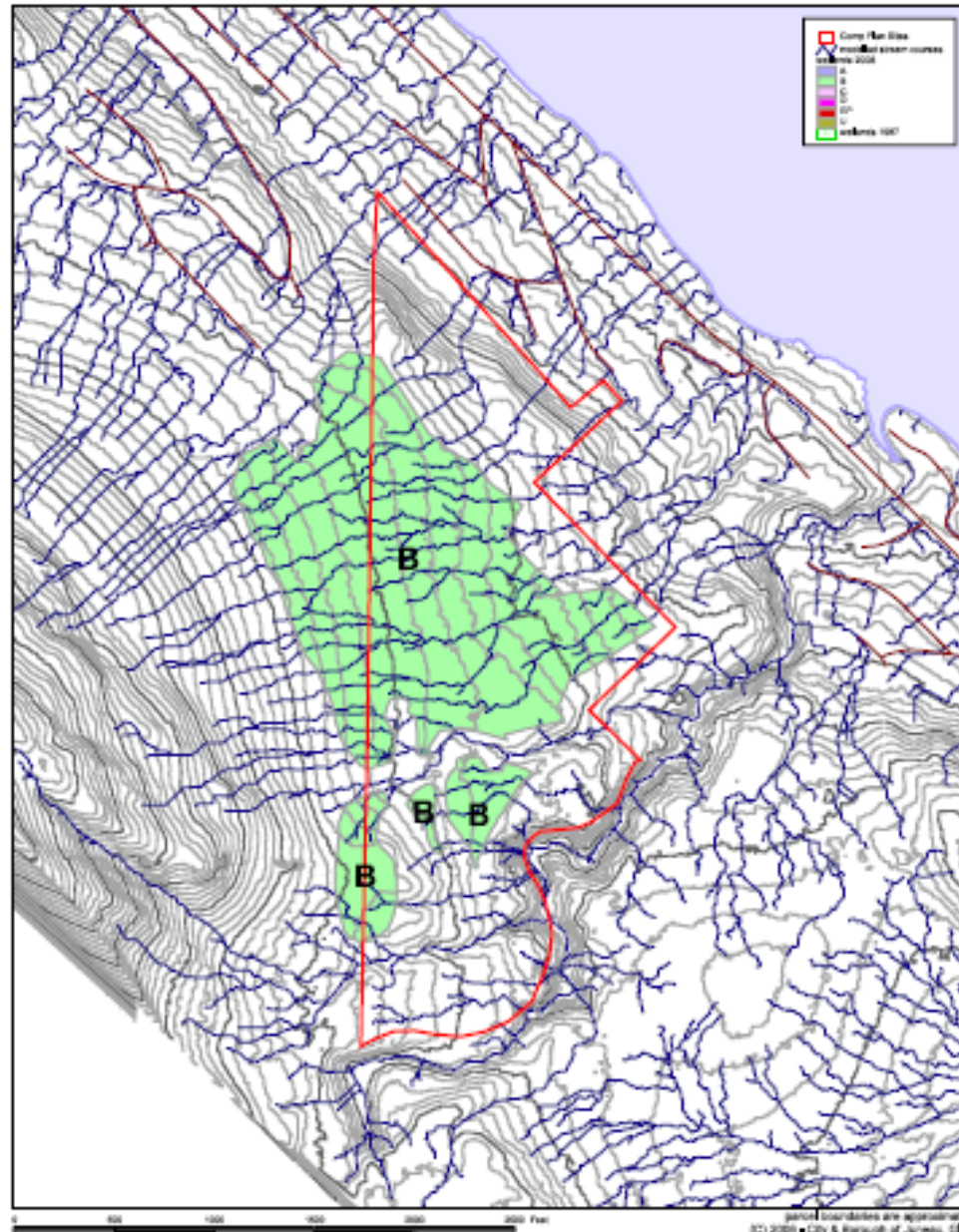
Site 6 – Blueberry Hill on Douglas Island

Site 6
Buildable Sites Study • Topography (LIDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006



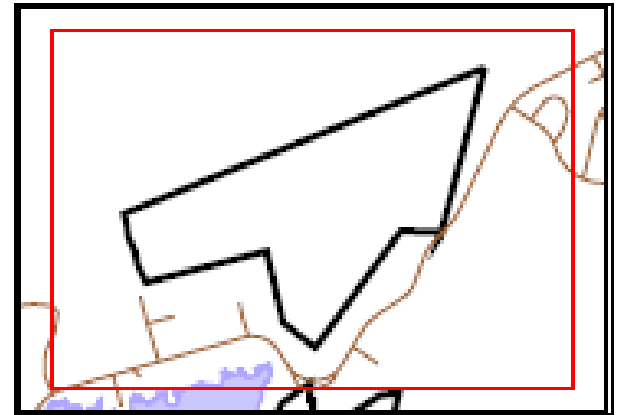
Site 6
Buildable Sites Study • Preliminary Terrain Analysis
CBJ Comp Plan Update 2006





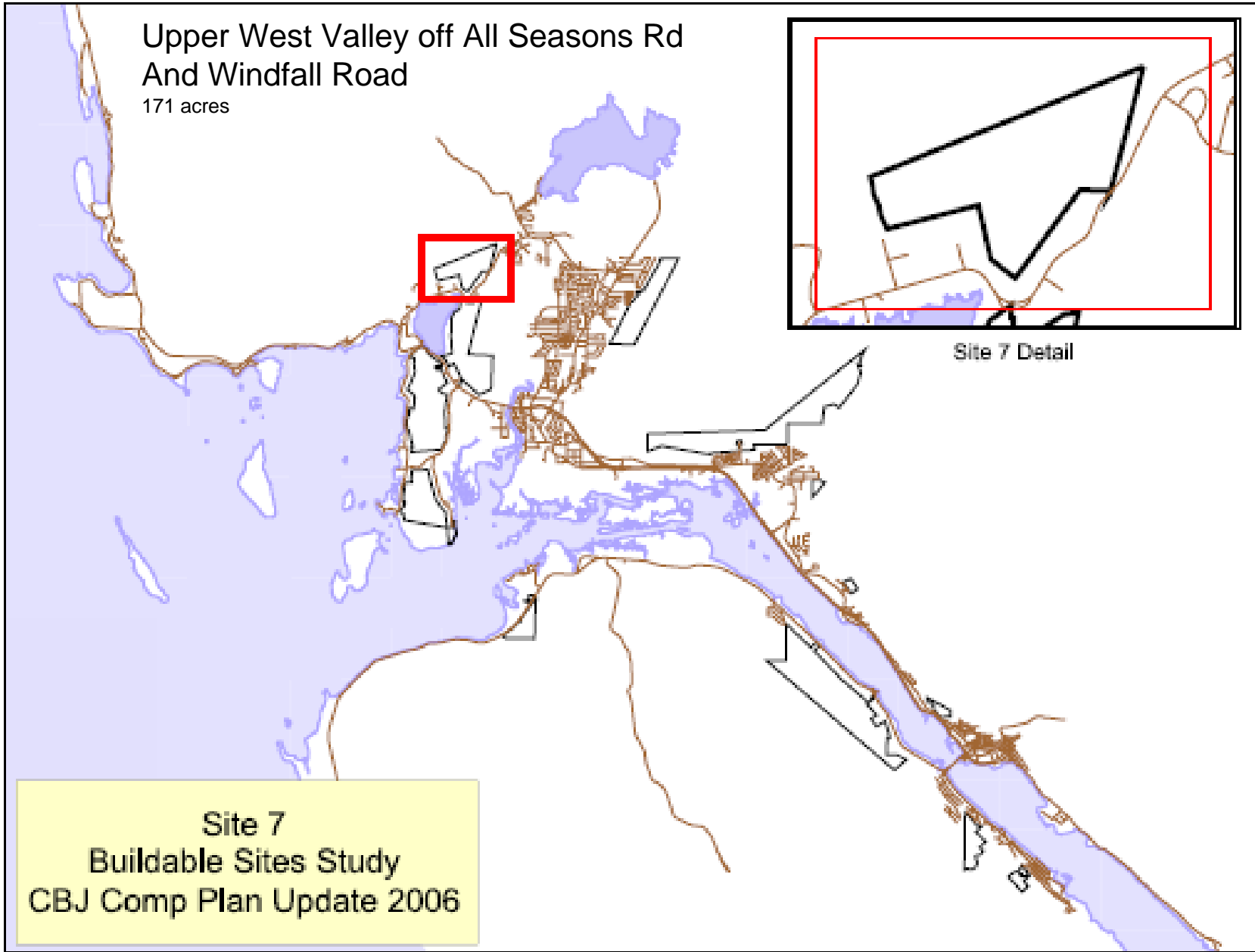
Upper West Valley off All Seasons Rd
And Windfall Road

171 acres

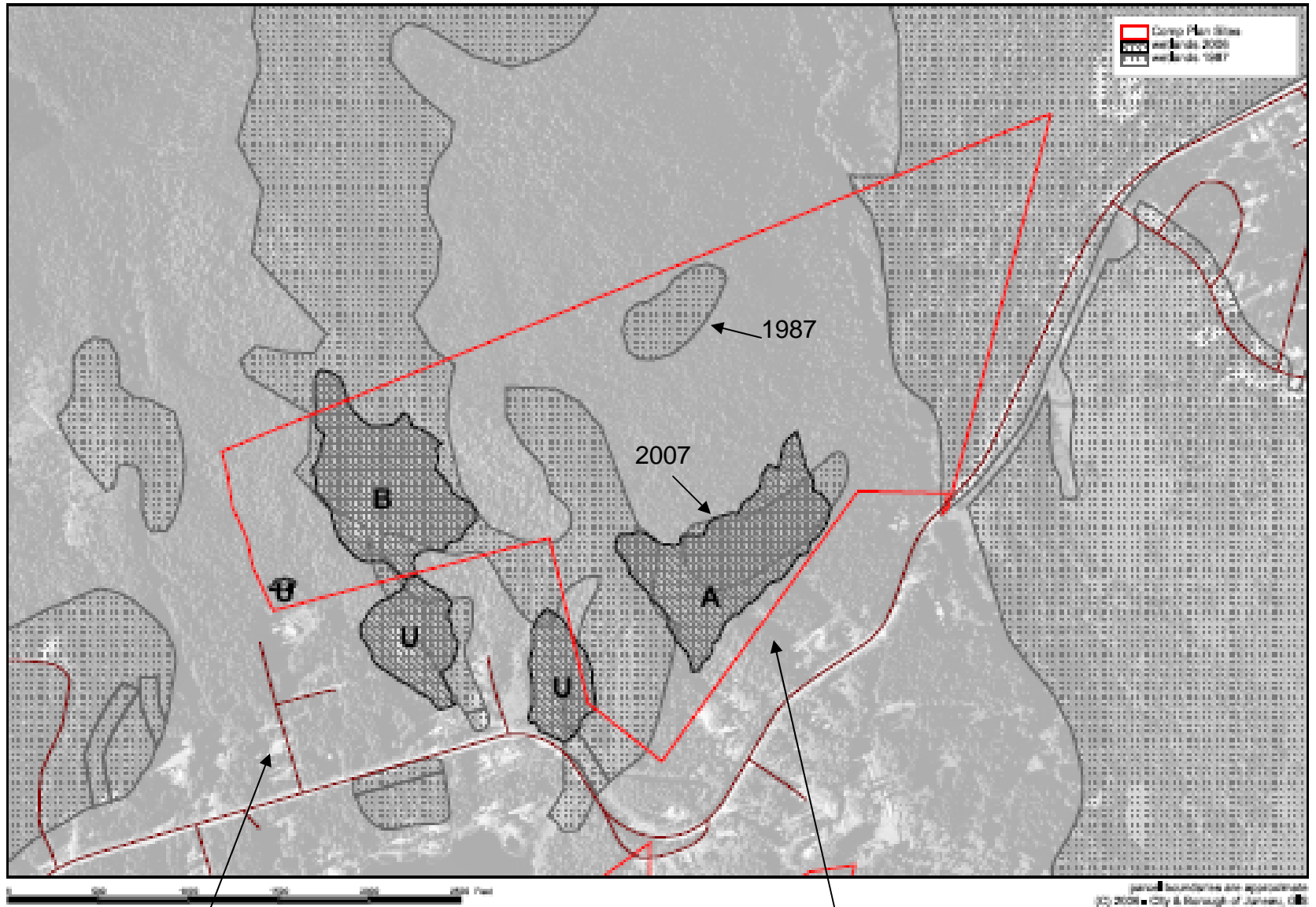


Site 7 Detail

Site 7
Buildable Sites Study
CBJ Comp Plan Update 2006

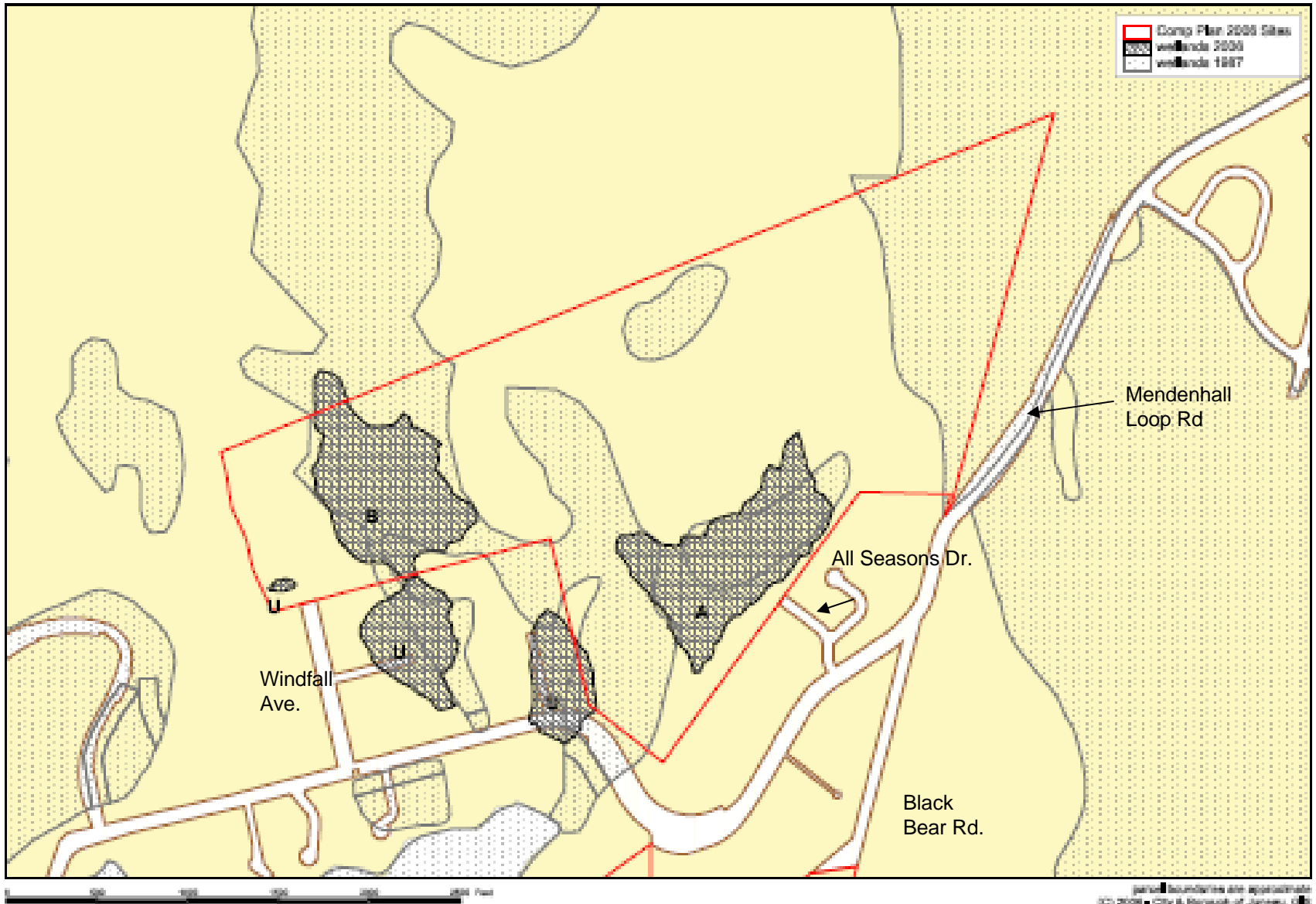


Upper West Valley northwest of All Seasons Drive & Northeast of Windfall Ave.



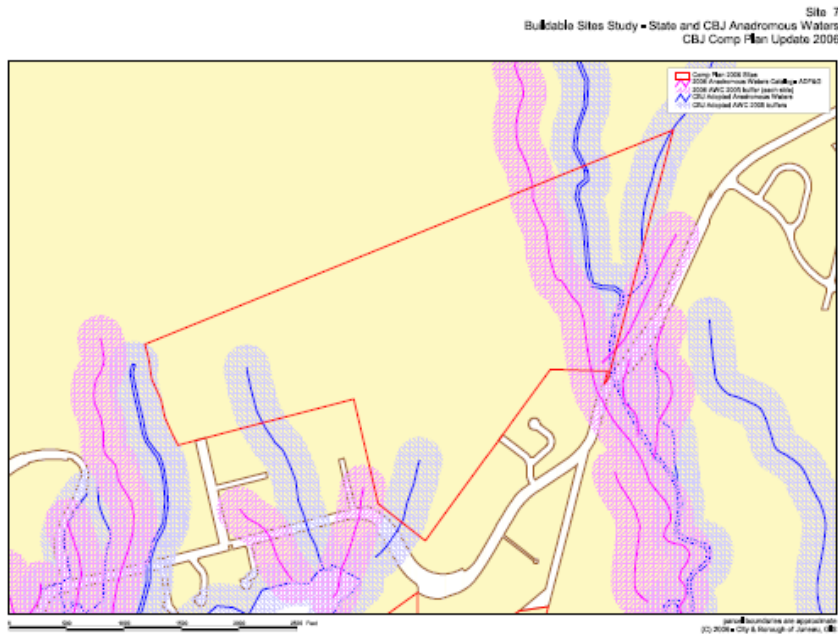
Windfall Ave.

All Seasons Dr.

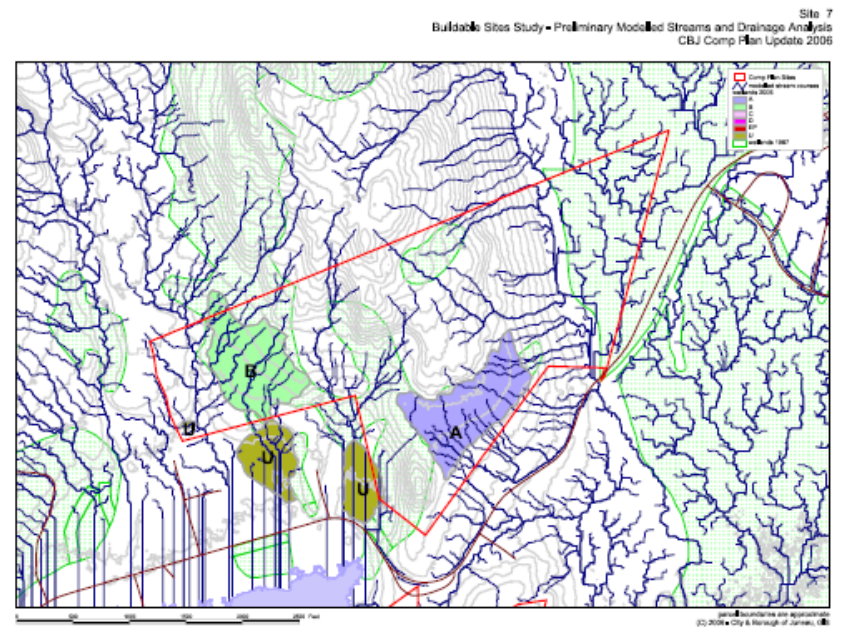


Site 7 – Upper West Valley

Anadromous Streams

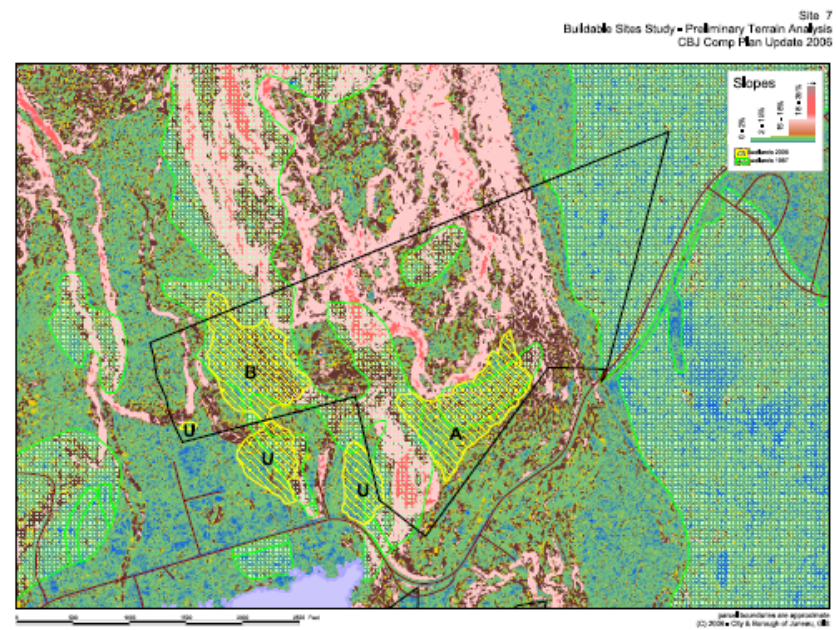
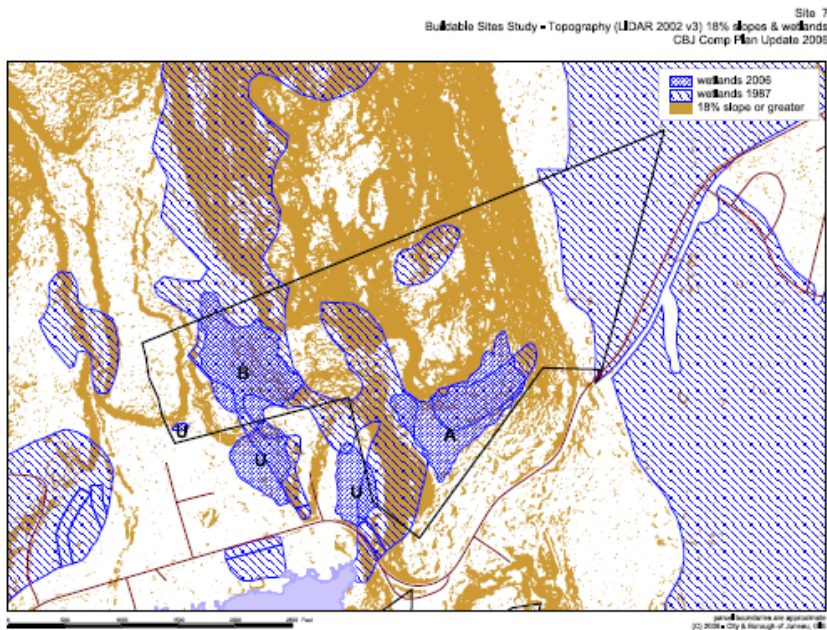


Theoretical Drainage



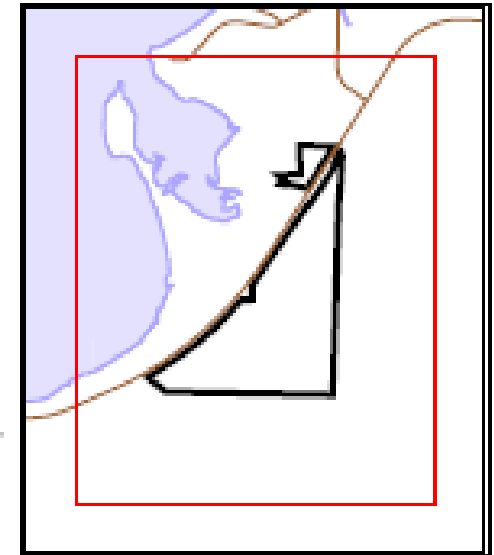
Site 7 – Upper West Valley above All Seasons Dr. and Windfall Ave.

Slopes



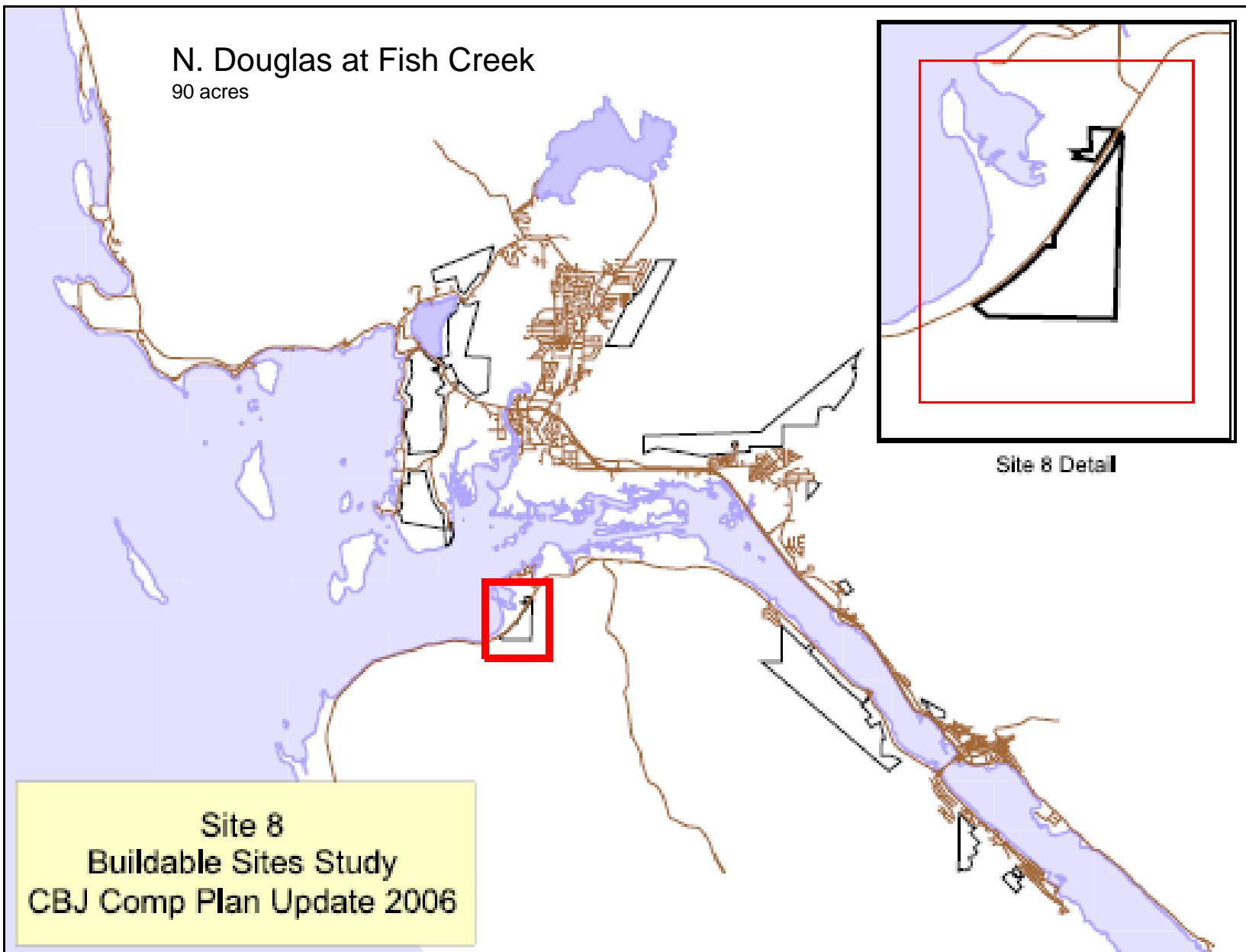
Could mitigate for crossing Class A wetland to get to buildable areas

N. Douglas at Fish Creek
90 acres



Site 8 Detail

Site 8
Buildable Sites Study
CBJ Comp Plan Update 2006



Site 8 – N. Douglas at Fish Creek

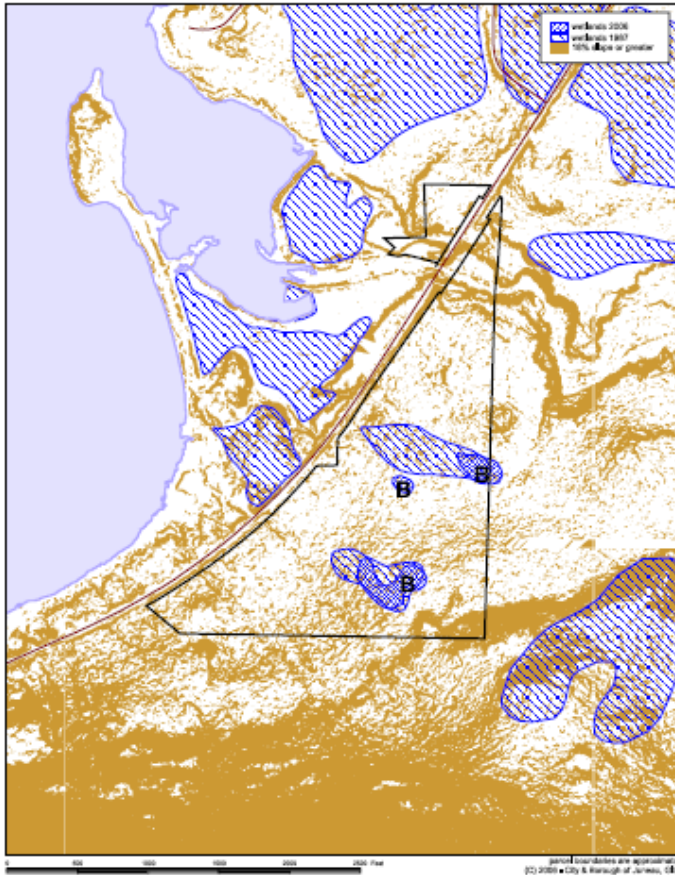
Comp Plan:
REC

Zoning:
RR

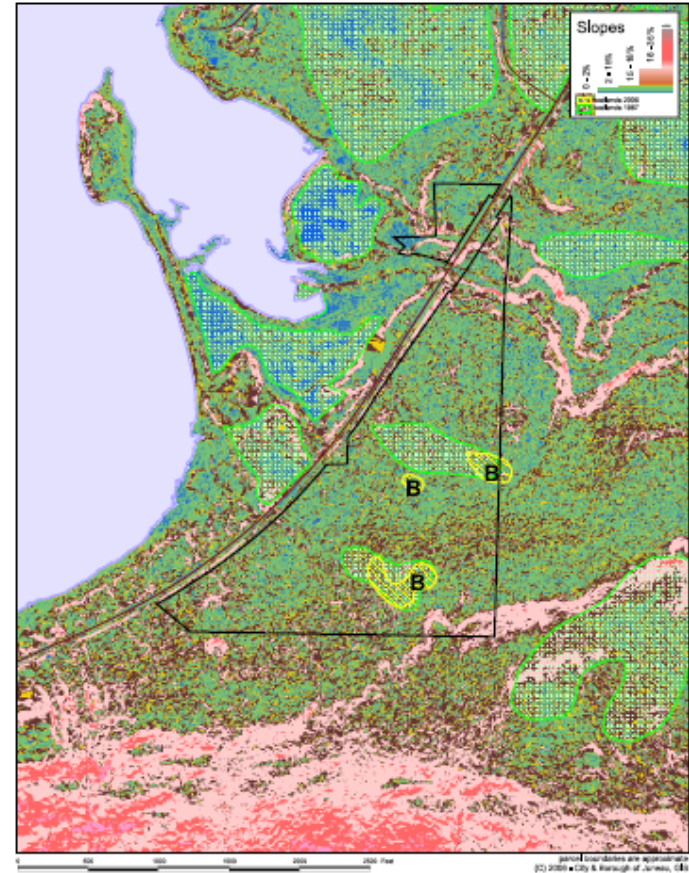


Site 8 – North Douglas Island

Site 8
Buildable Sites Study - Topography (LIDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006



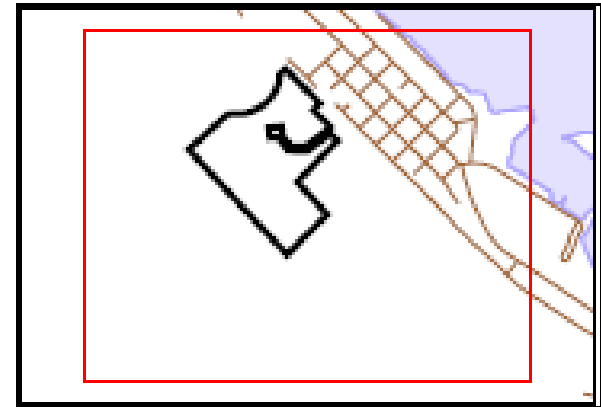
Site 8
Buildable Sites Study - Preliminary Terrain Analysis
CBJ Comp Plan Update 2006



Not being considered at this time until it can be annexed into the Urban service area and provided sewers & roads

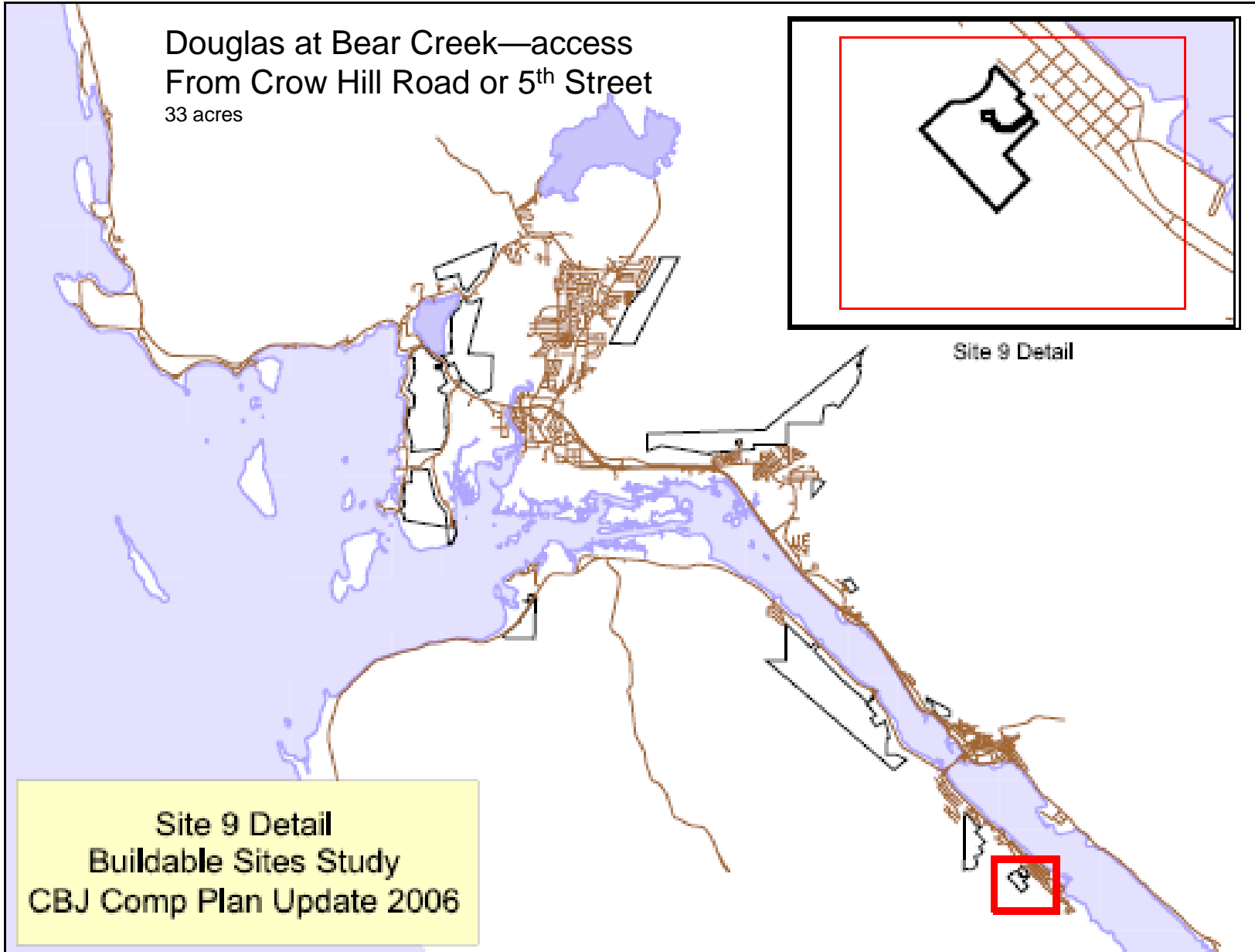
Douglas at Bear Creek—access
From Crow Hill Road or 5th Street

33 acres



Site 9 Detail

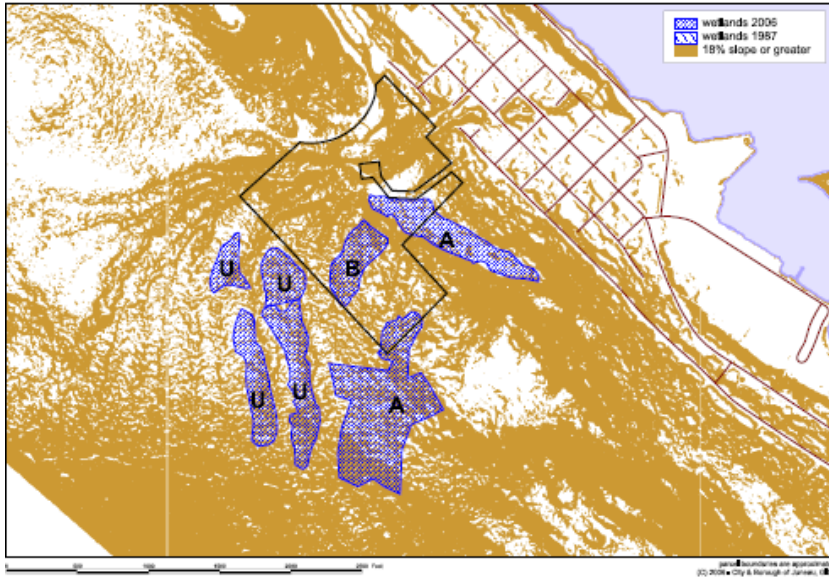
Site 9 Detail
Buildable Sites Study
CBJ Comp Plan Update 2006



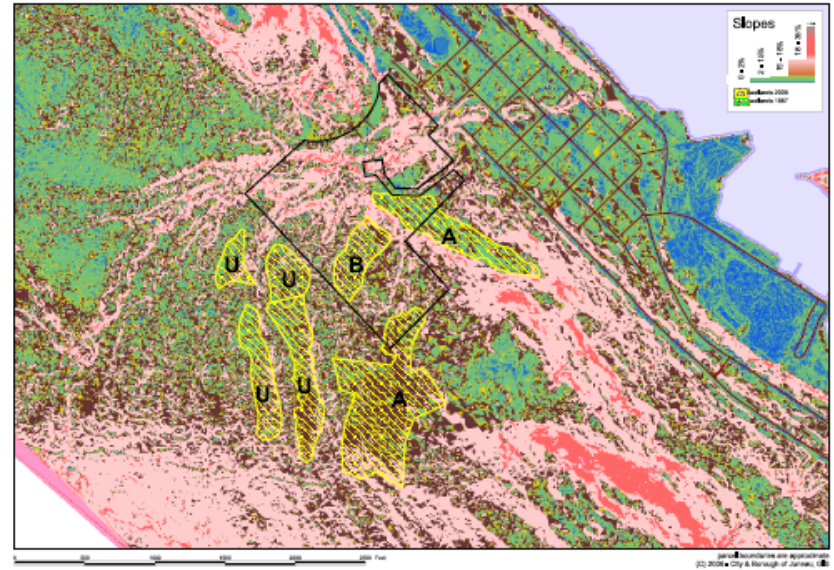


Site 10 in Douglas –Crow Hill Drive or 5th Street access

Site 9
Buildable Sites Study - Topography (LiDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006

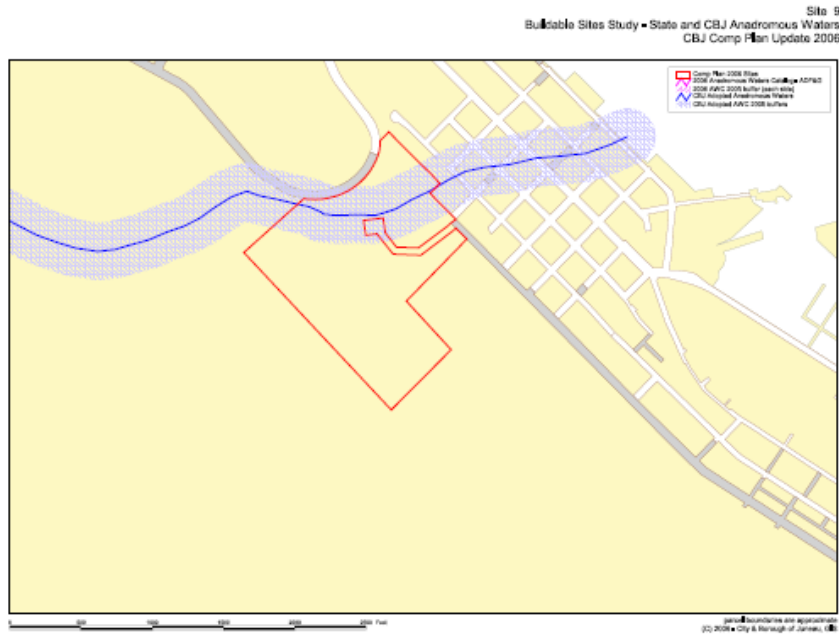


Site 9
Buildable Sites Study - Preliminary Terrain Analysis
CBJ Comp Plan Update 2006

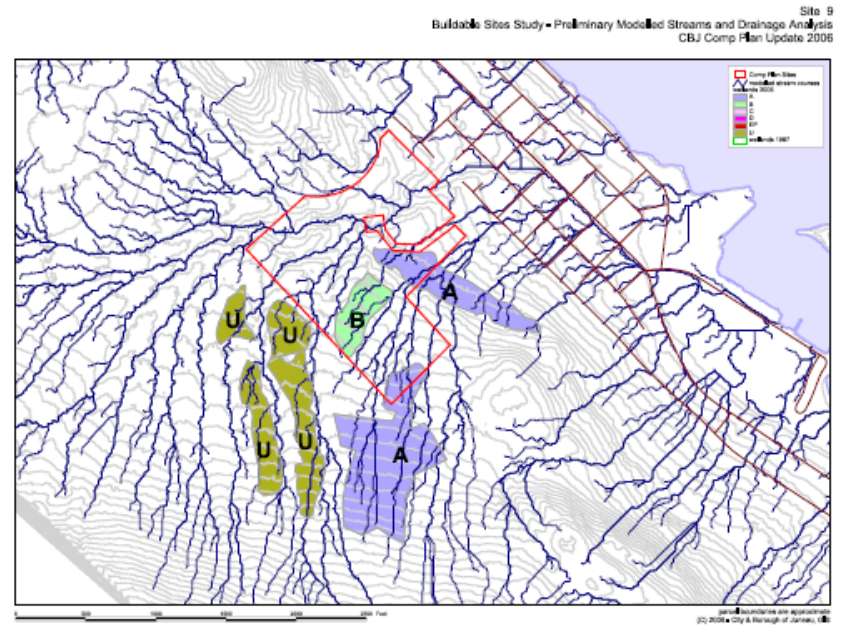


Site 9 -- Douglas

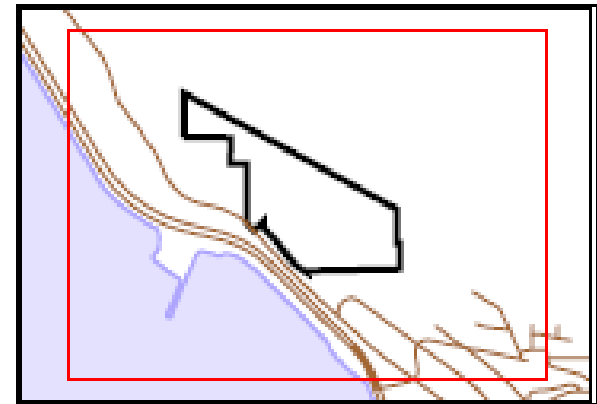
Anadromous Stream



Theoretical Drainage



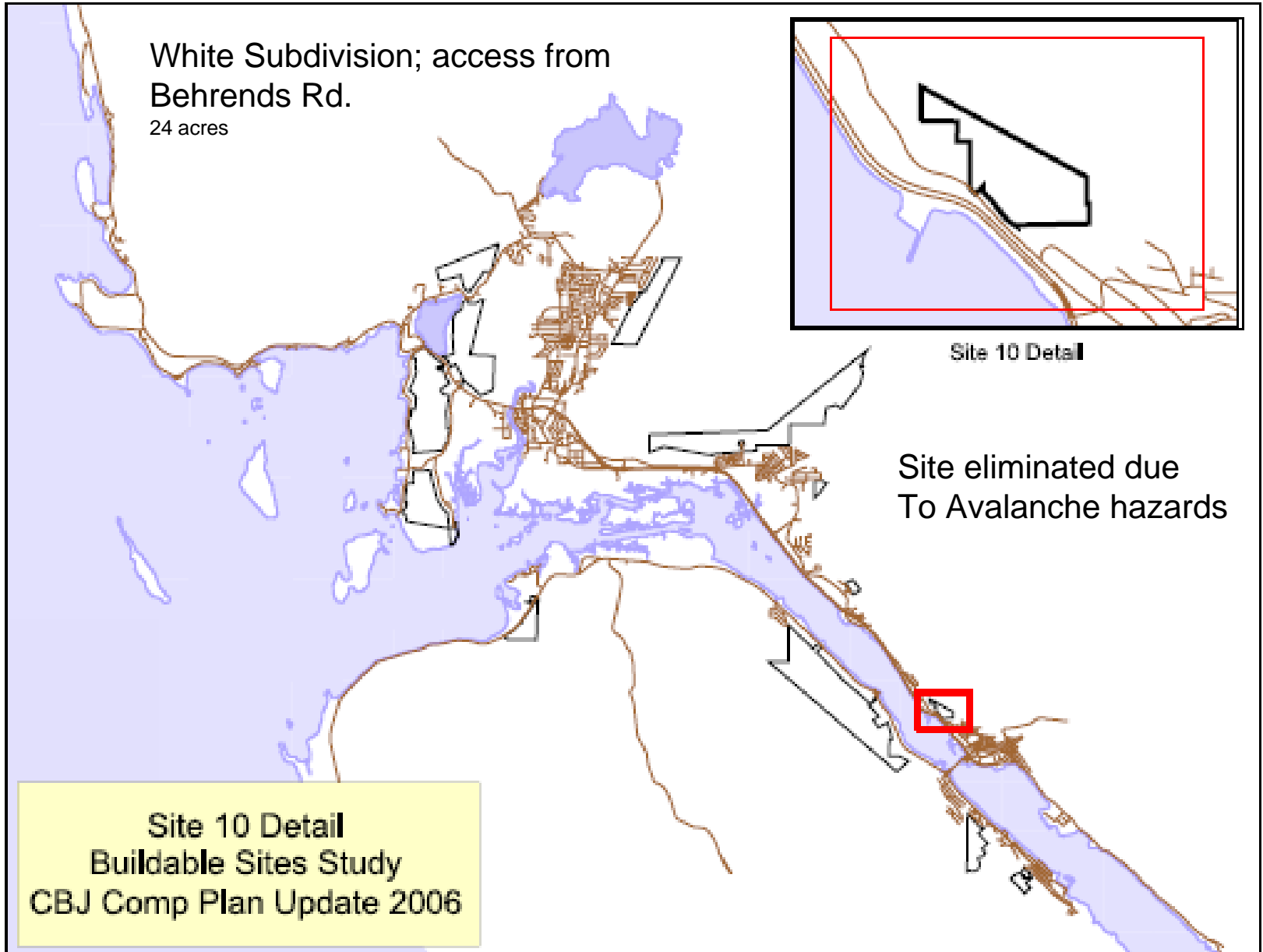
White Subdivision; access from
Behrends Rd.
24 acres

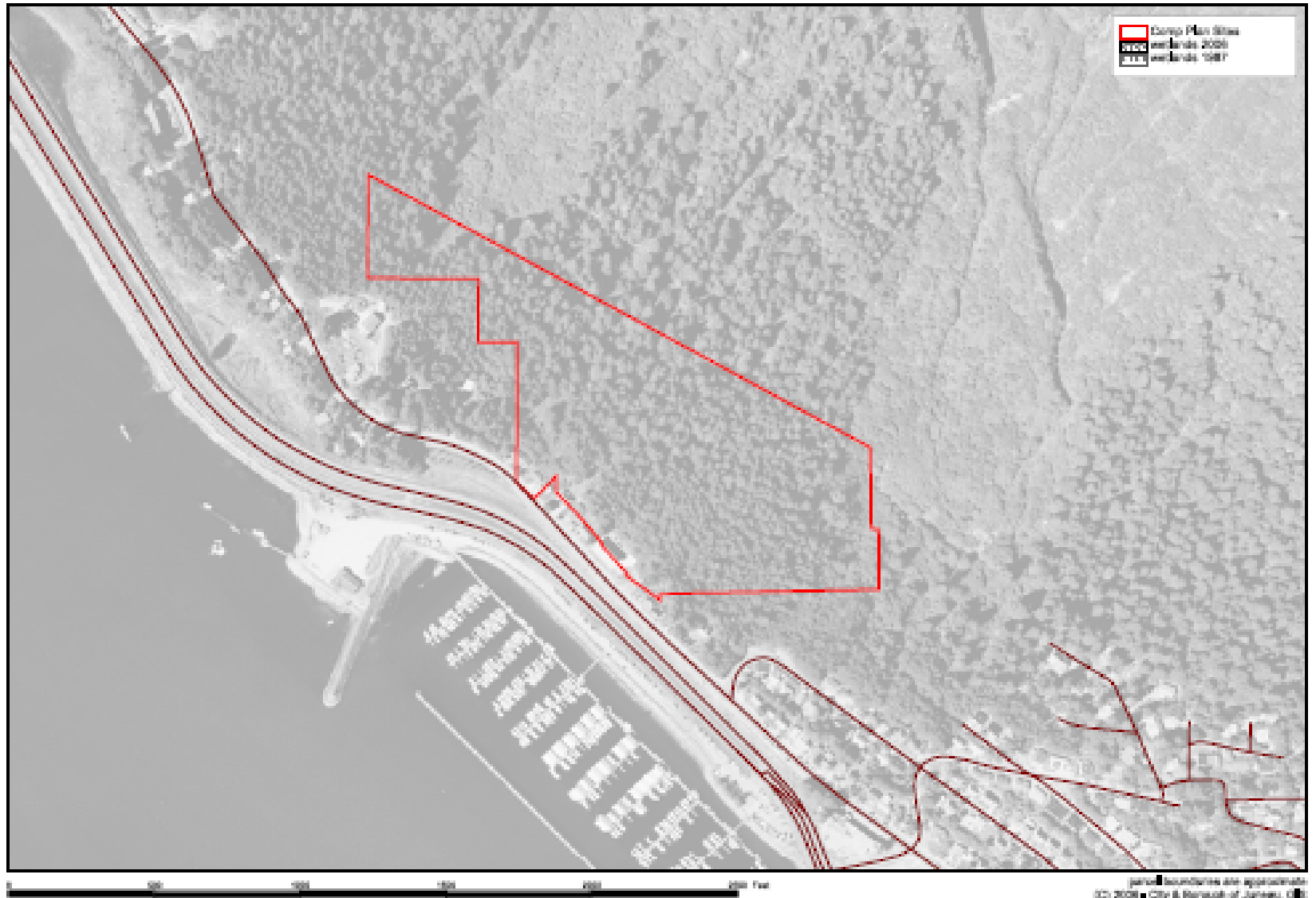


Site 10 Detail

Site eliminated due
To Avalanche hazards

Site 10 Detail
Buildable Sites Study
CBJ Comp Plan Update 2006

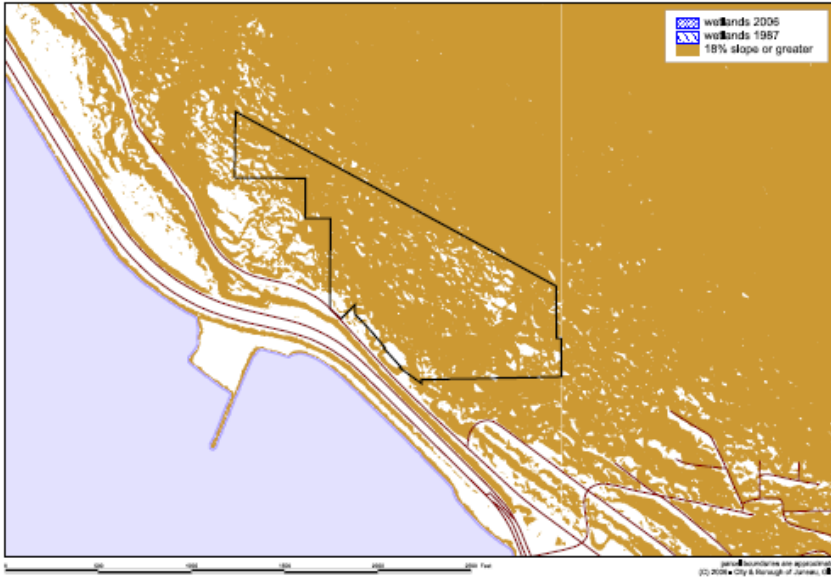




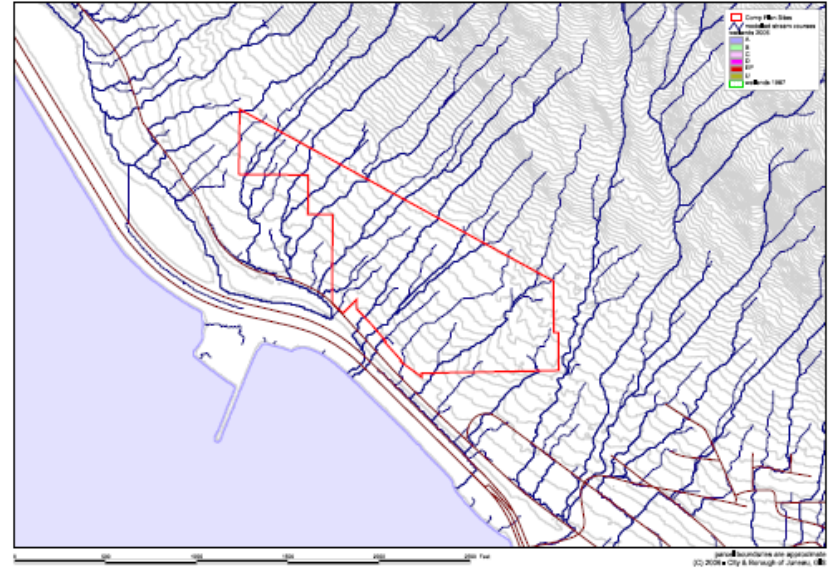
No on-site reconnaissance conducted due to avalanche hazard potential

Site 10 – northwest of Behrends Street

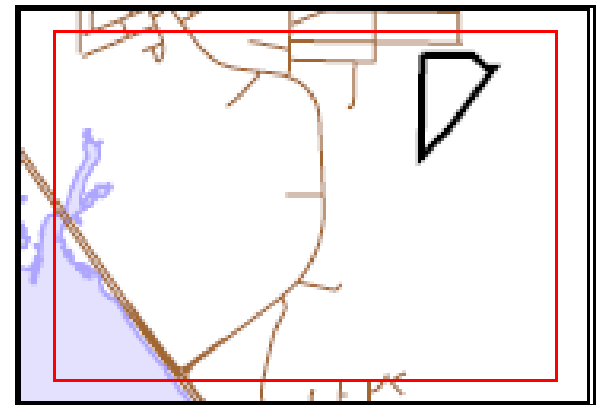
Site 10
Buildable Sites Study • Topography (LIDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006



Site 10
Buildable Sites Study • Preliminary Modelled Streams and Drainage Analysis
CBJ Comp Plan Update 2006

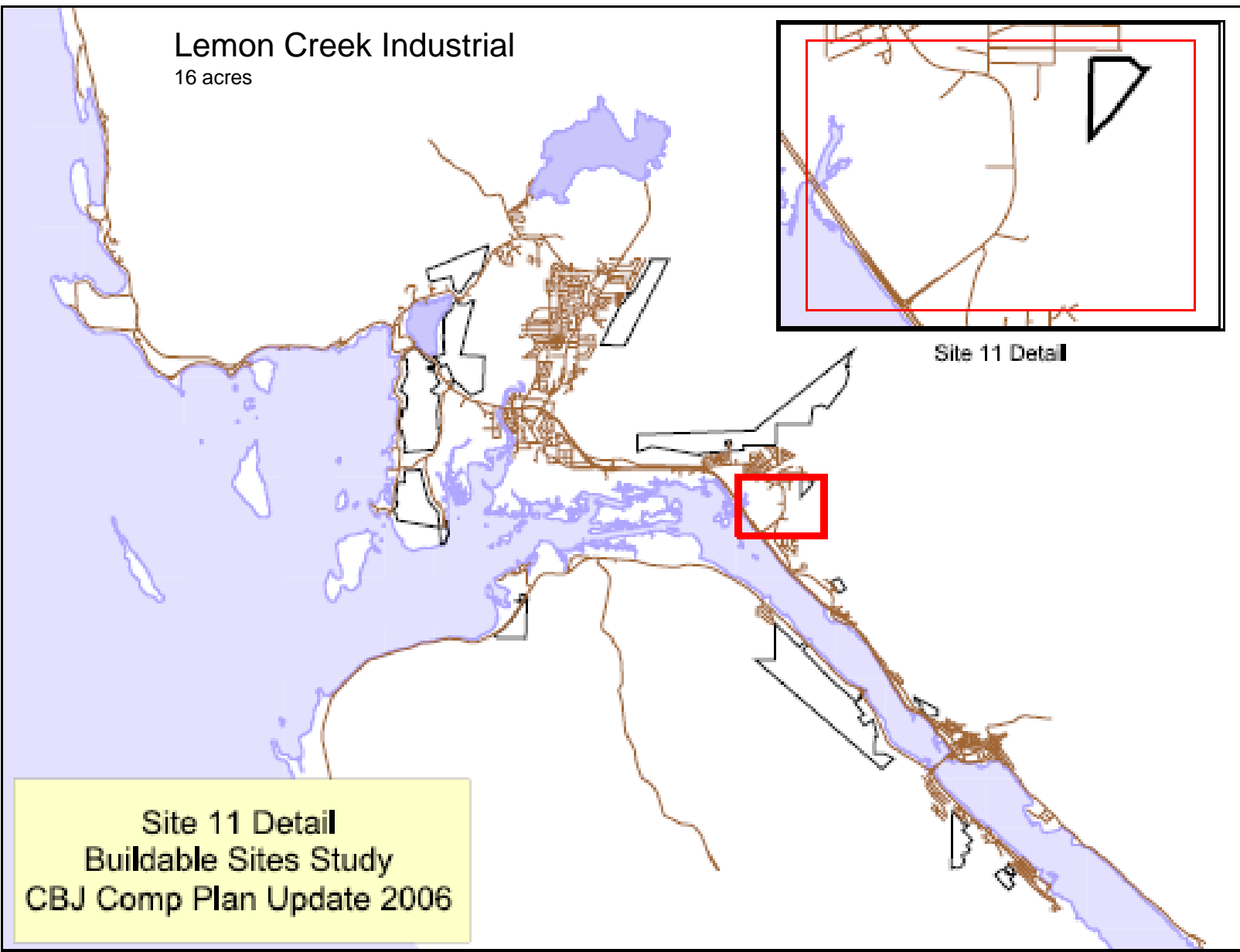


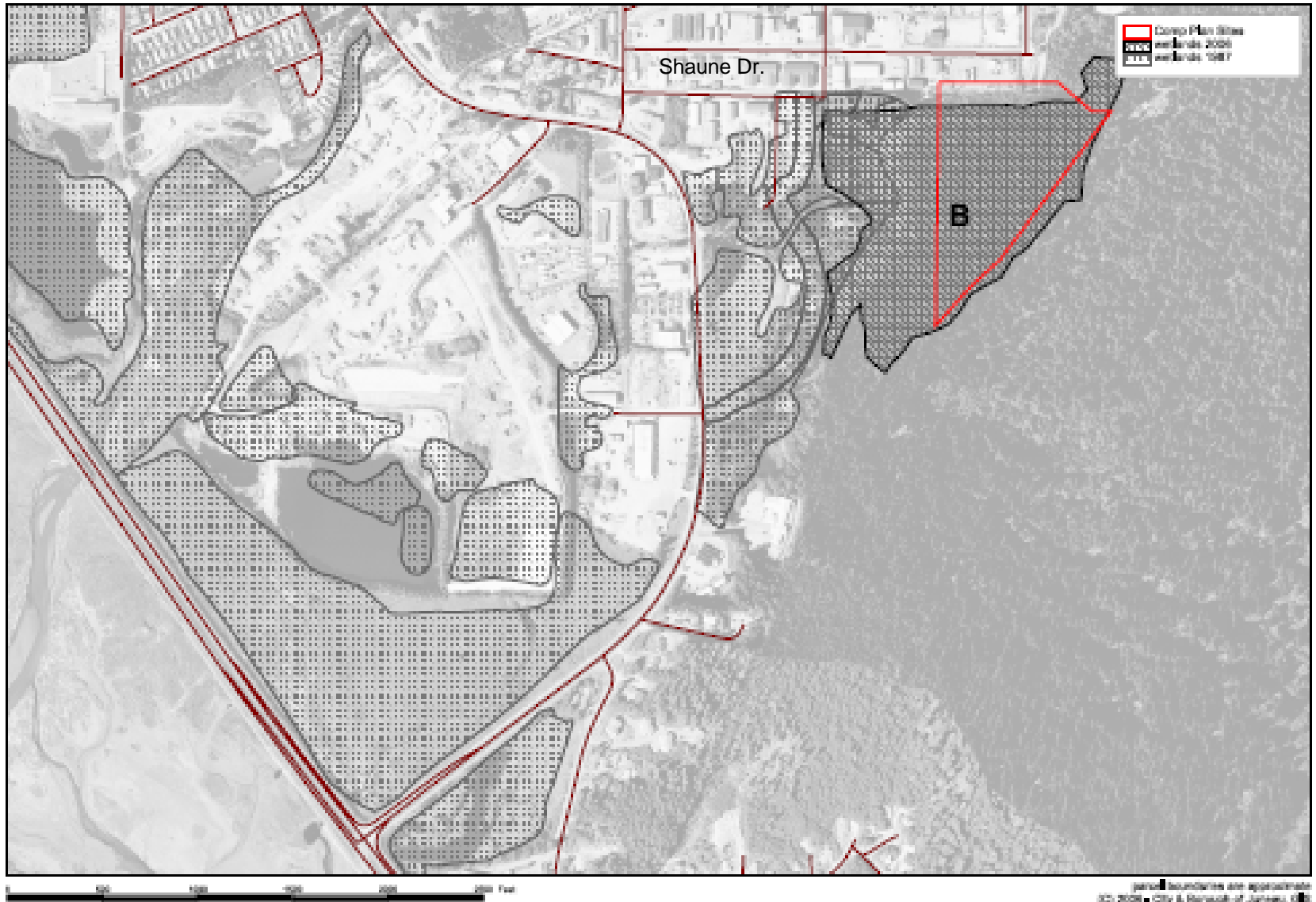
Lemon Creek Industrial
16 acres



Site 11 Detail

Site 11 Detail
Buildable Sites Study
CBJ Comp Plan Update 2006

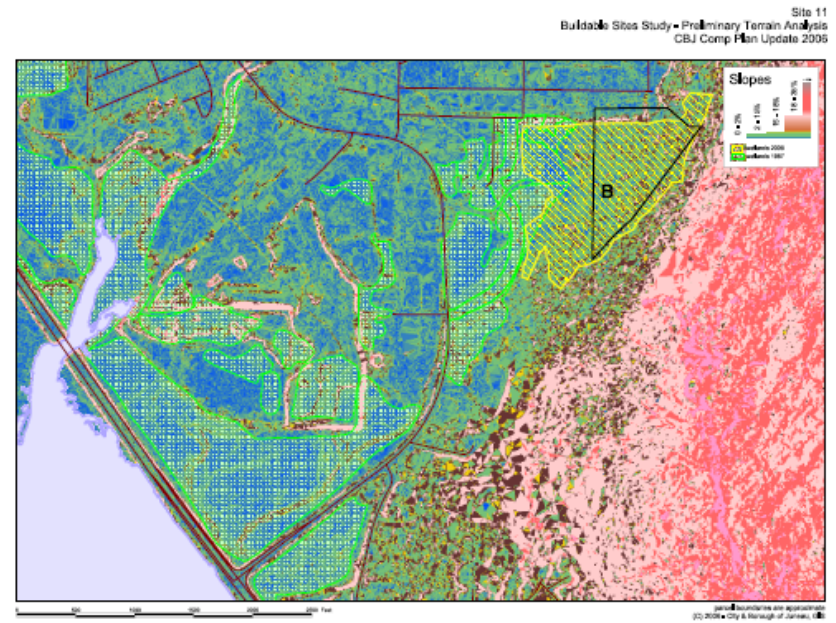
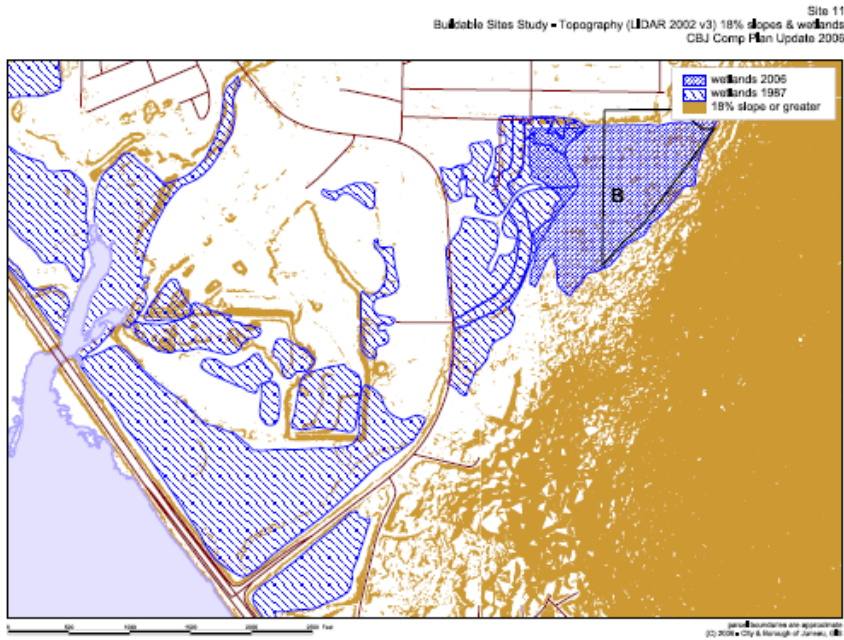




boundaries are approximate
(C) 2005 City & Borough of Janesville, WI

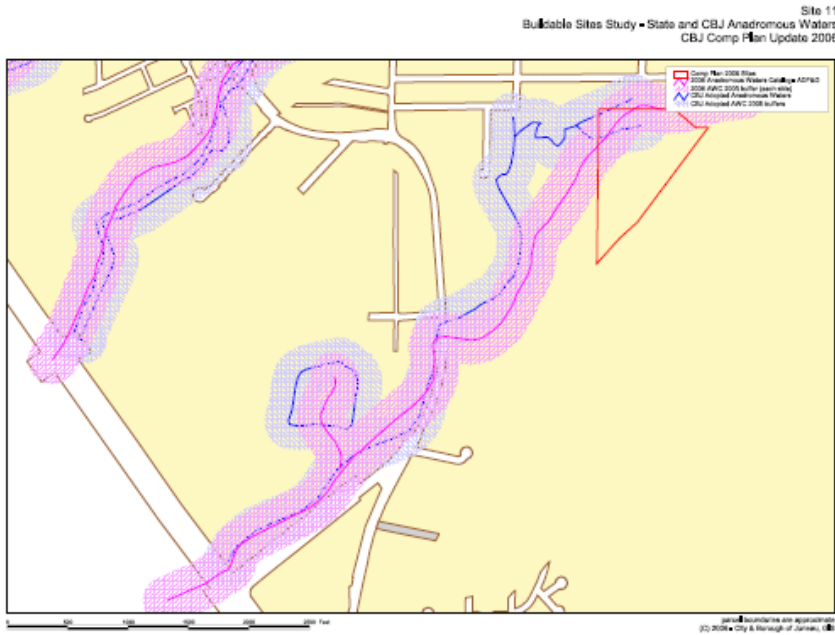
Site 11 – Lemon Creek Industrial District via Shaune Road

Slopes

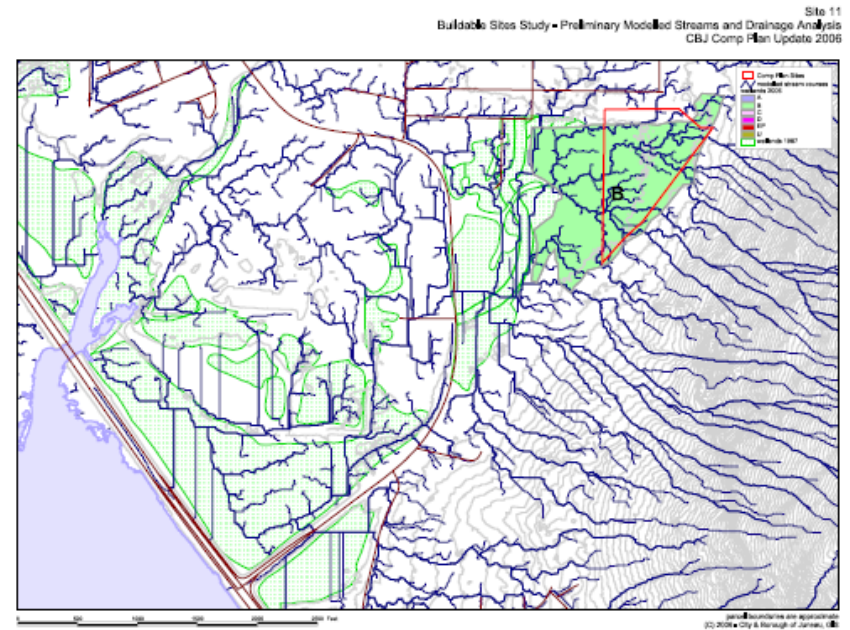


Site 11 Lemon Creek Industrial District

Anadromous streams

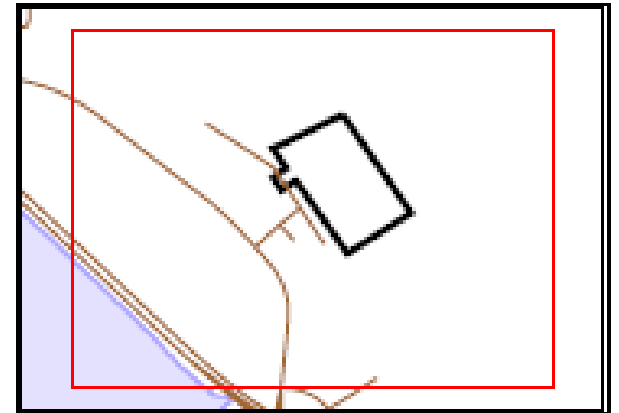


Theoretical drainage



Salmon Creek at Greenwood Ave.

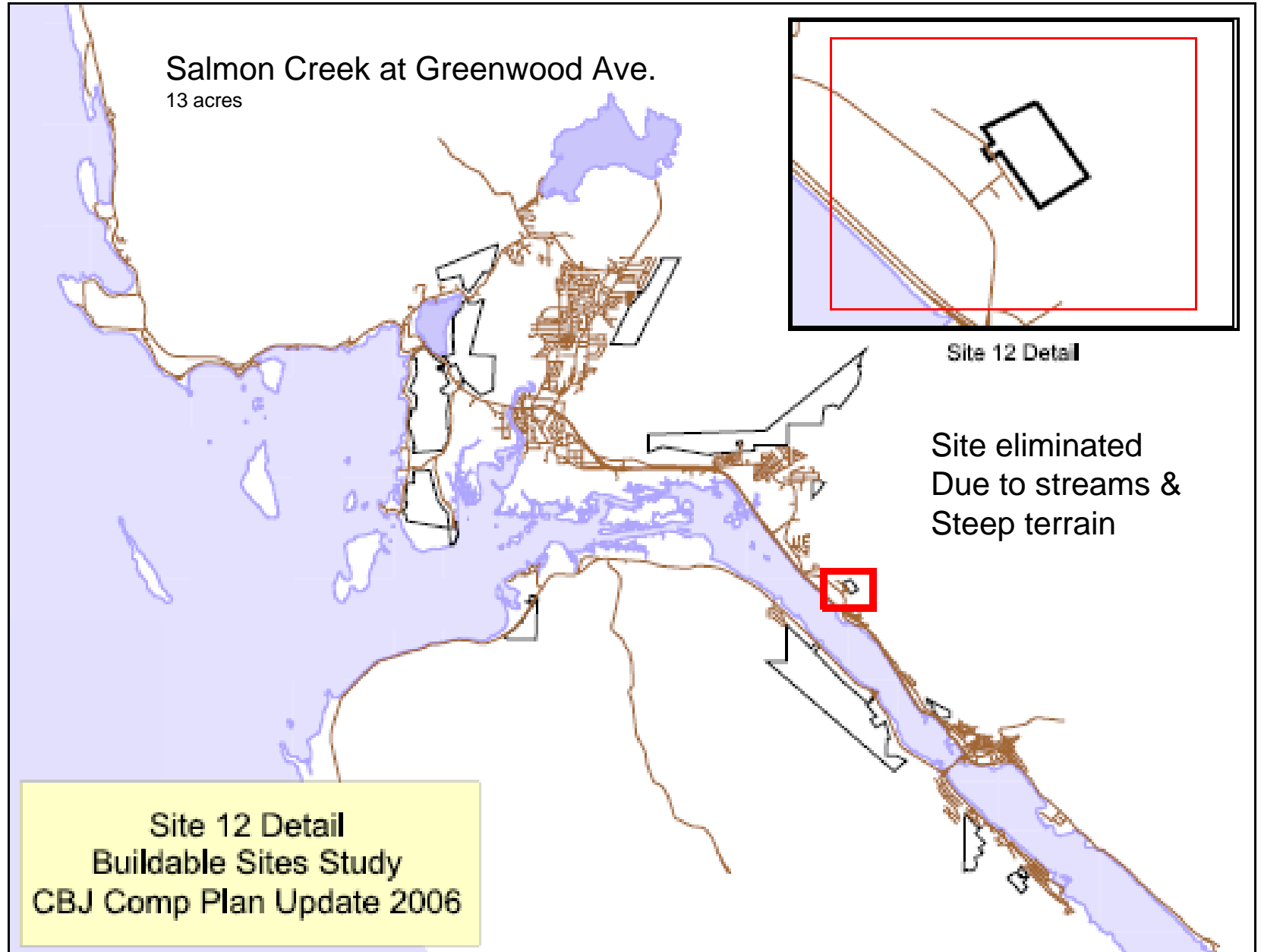
13 acres



Site 12 Detail

Site eliminated
Due to streams &
Steep terrain

Site 12 Detail
Buildable Sites Study
CBJ Comp Plan Update 2006





Corp Plan sites
wetlands 2008
wetlands 1987

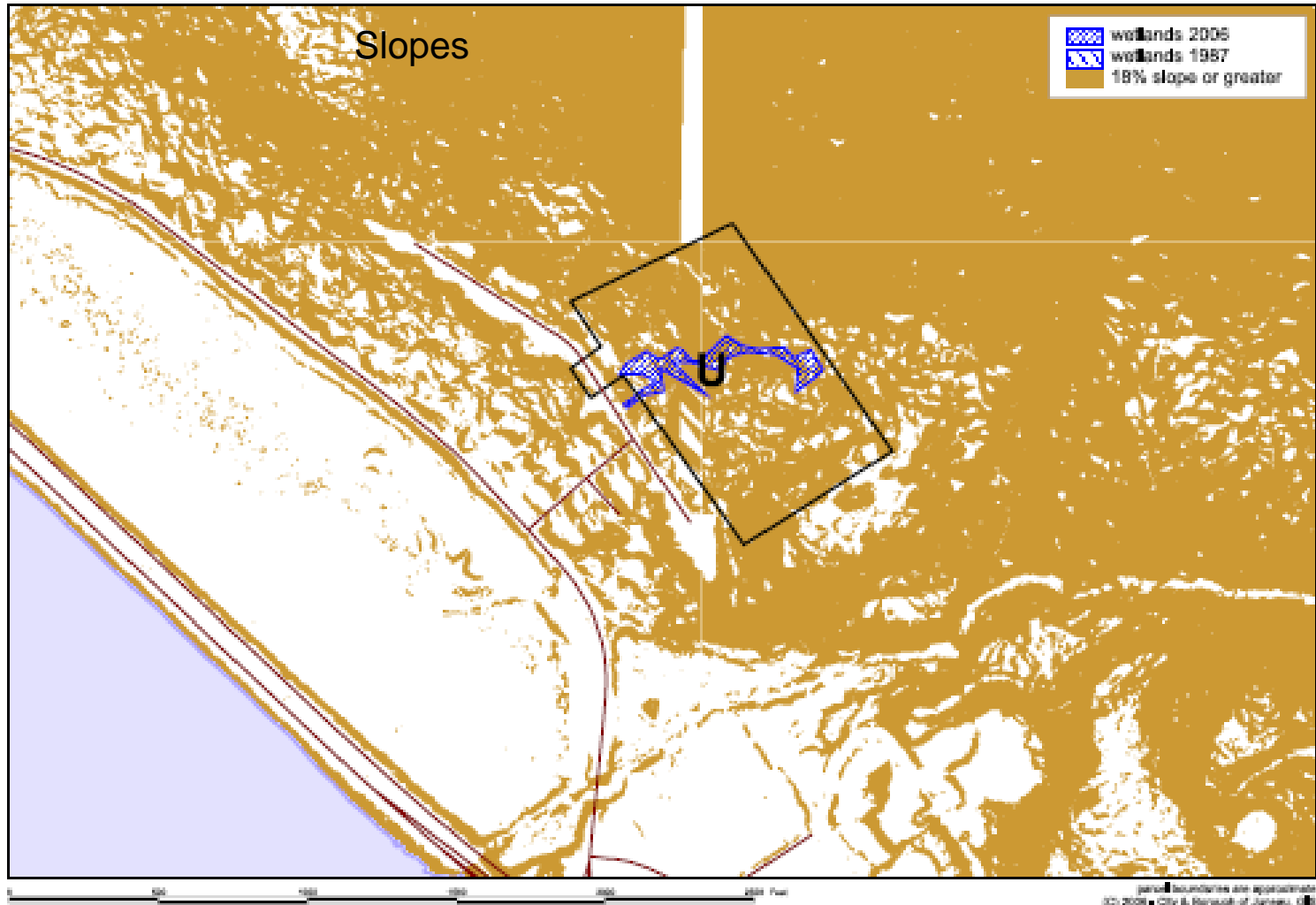
Unclassified

0 100 200 300 400 Feet

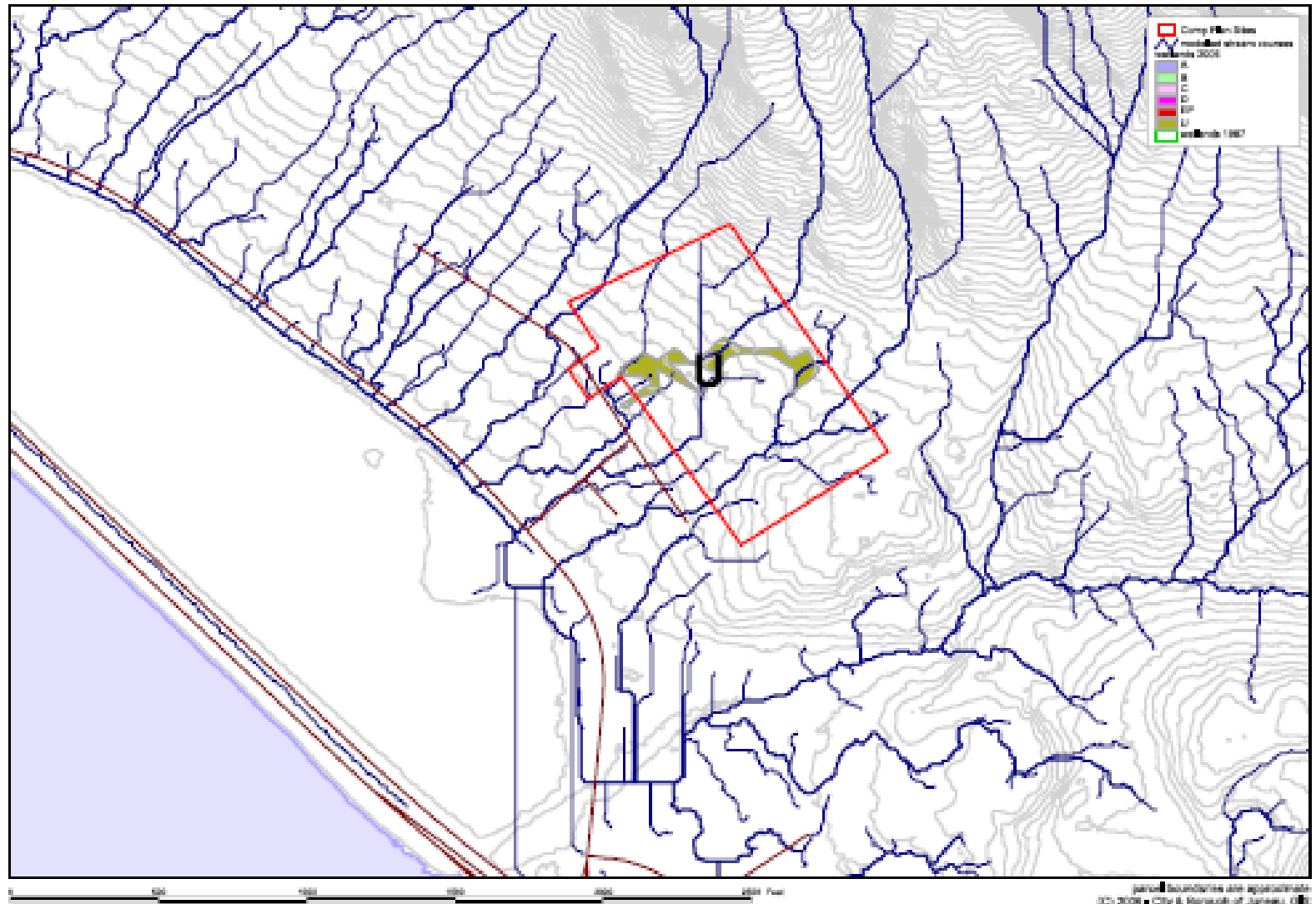
boundaries are approximate
(C) 2008 City & Borough of Juneau, AK

Site 12 – Heintzelman Ridge Trail access via Greenwood Street

Site 12
Buildable Sites Study - Topography (LIDAR 2002 v3) 18% slopes & wetlands
GBJ Comp Plan Update 2006

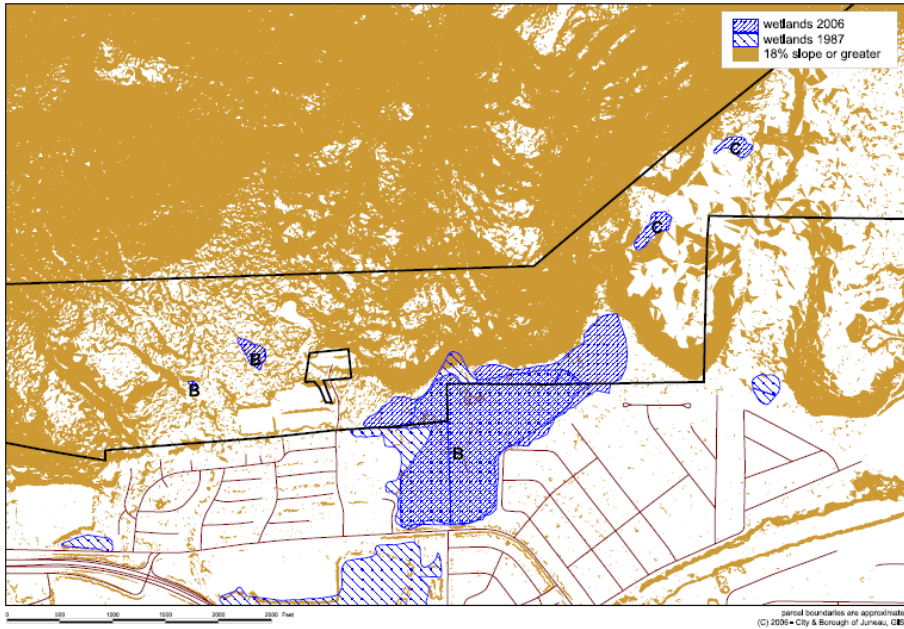


slopes

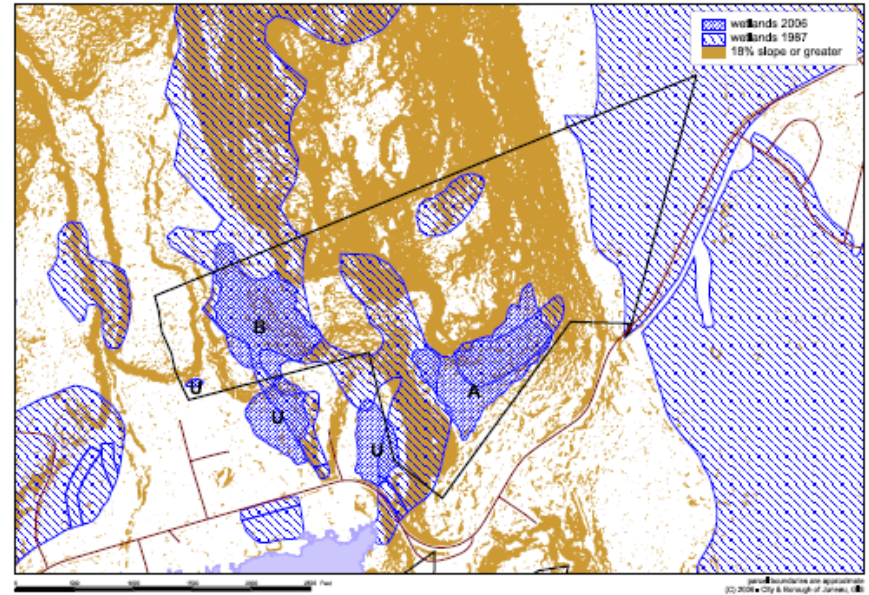


The five most “buildable “ sites: Site 1– Above DZ School; Site 7 – Upper West Valley; Site 2 -- Mendenhall Peninsula; Site 4 – Petersen Hill; and Site 5 – Thunder Mountain

Site 1 detail
Buildable Sites Study - Topography (LIDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006

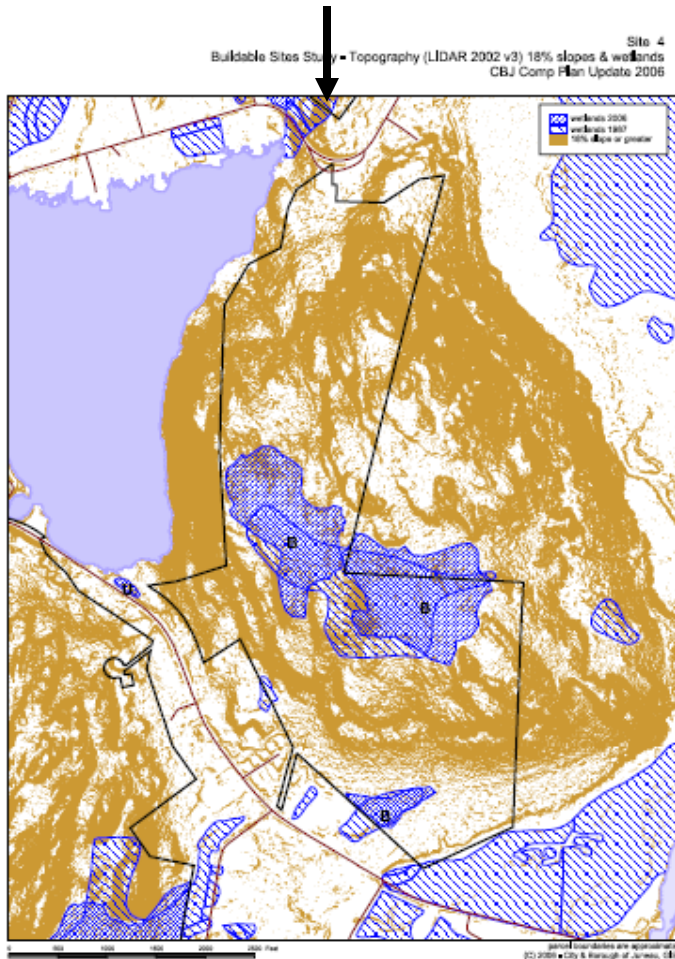


Site 7
Buildable Sites Study - Topography (LIDAR 2002 v3) 18% slopes & wetlands
CBJ Comp Plan Update 2006

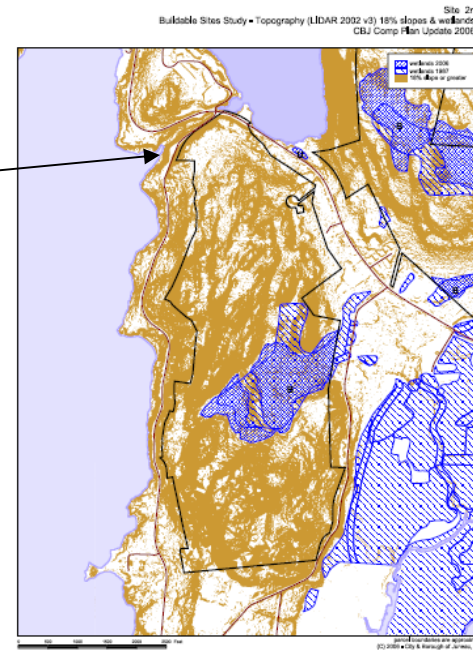


Suitable for residential use

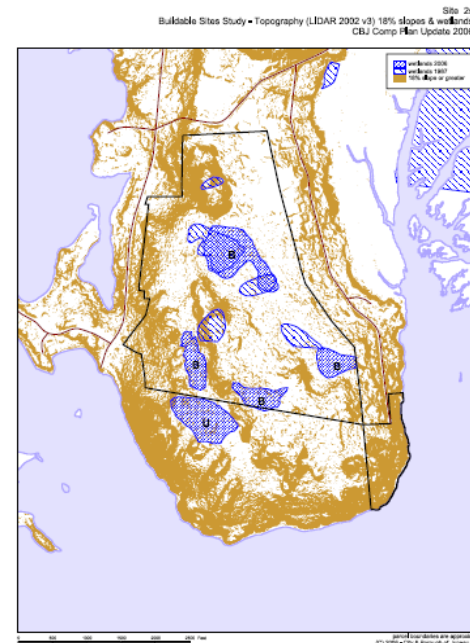
Suitable for clustered housing— particularly student & faculty housing



Site 4
Long-term

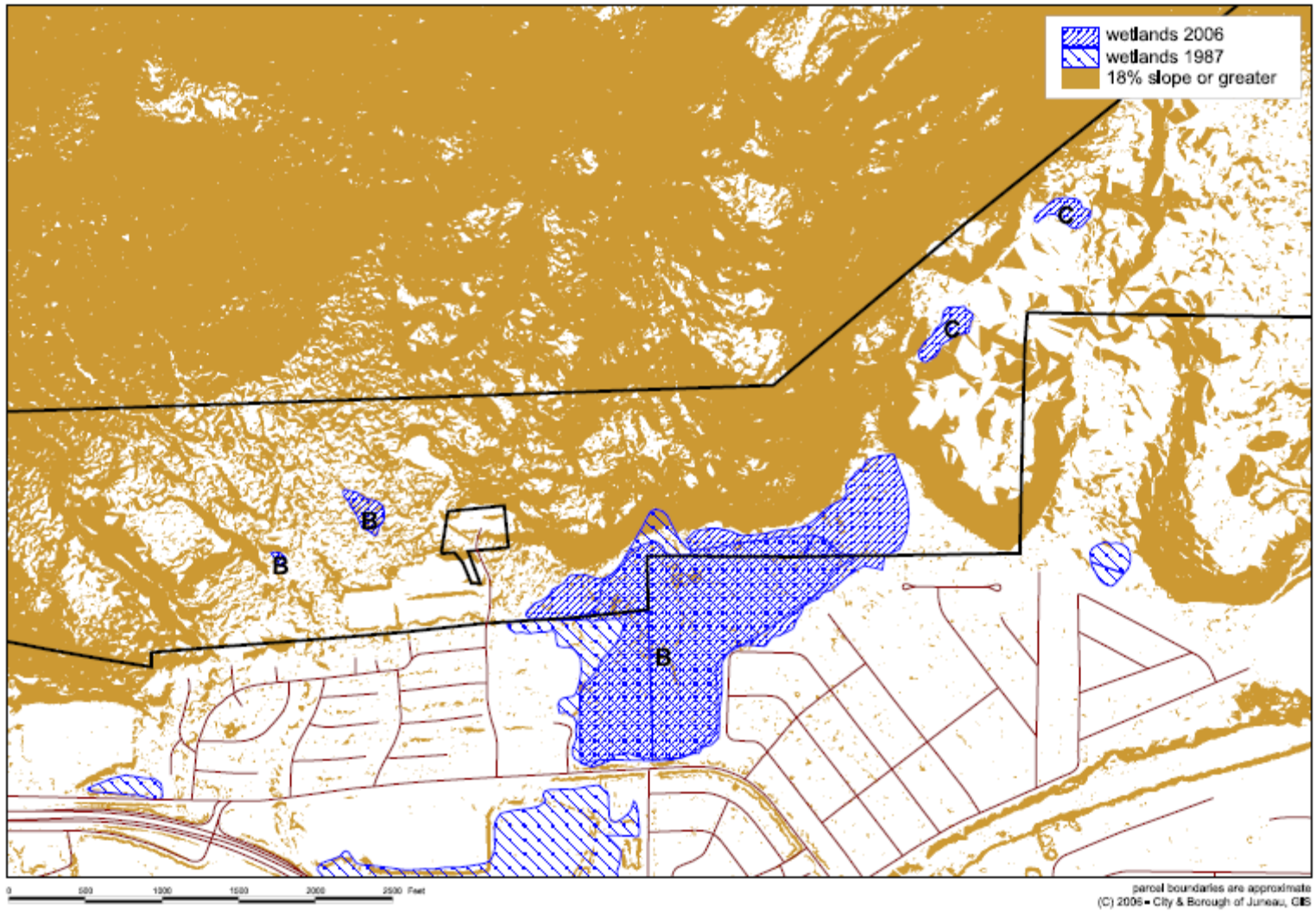


Site 2 North
Long-term

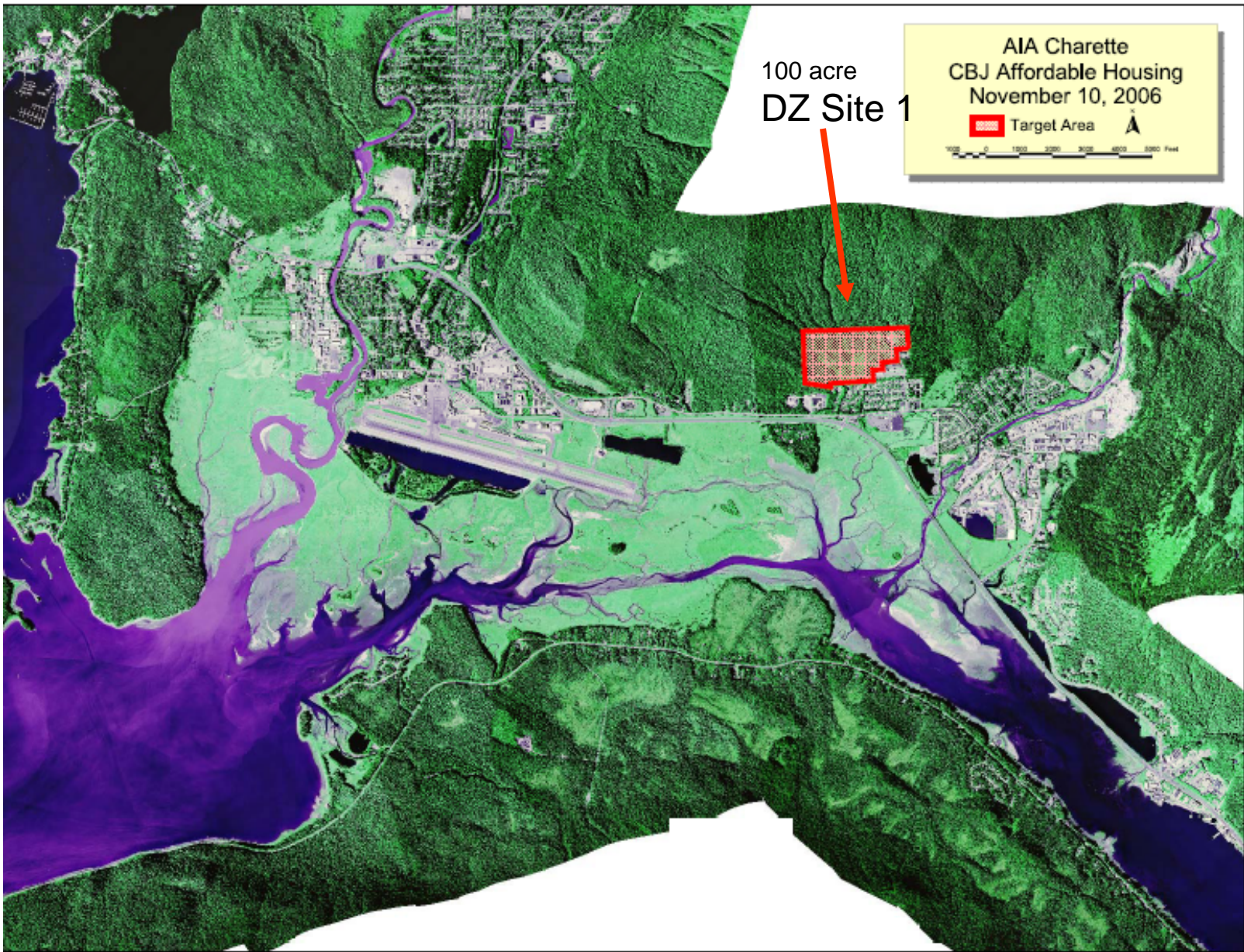


Site 2 South
Long-term

Suitable for Industry due to Flight safety path

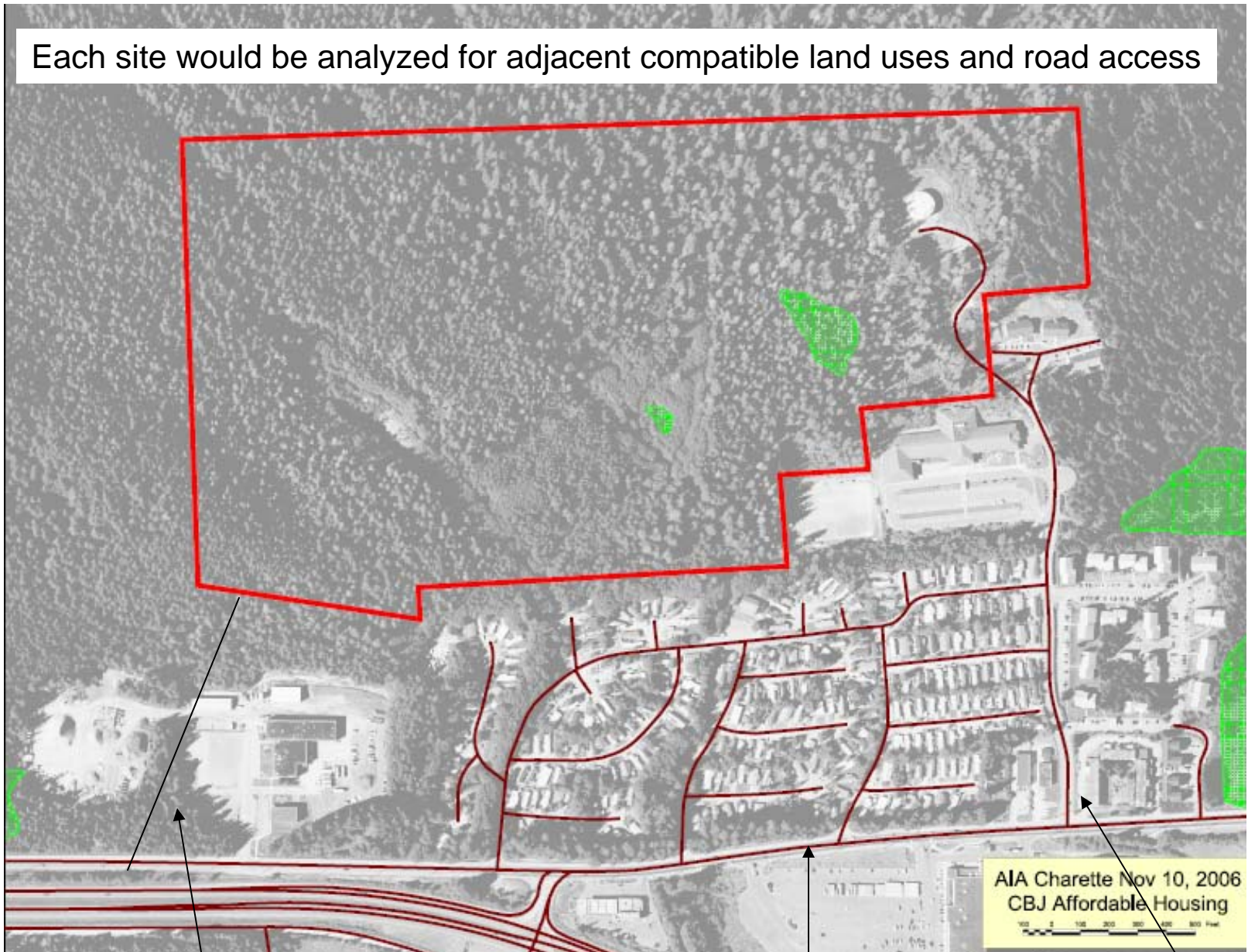


Site 1 buildable area detail



Each candidate site would be analyzed for development to determine the building “footprints” on the site.

Each site would be analyzed for adjacent compatible land uses and road access

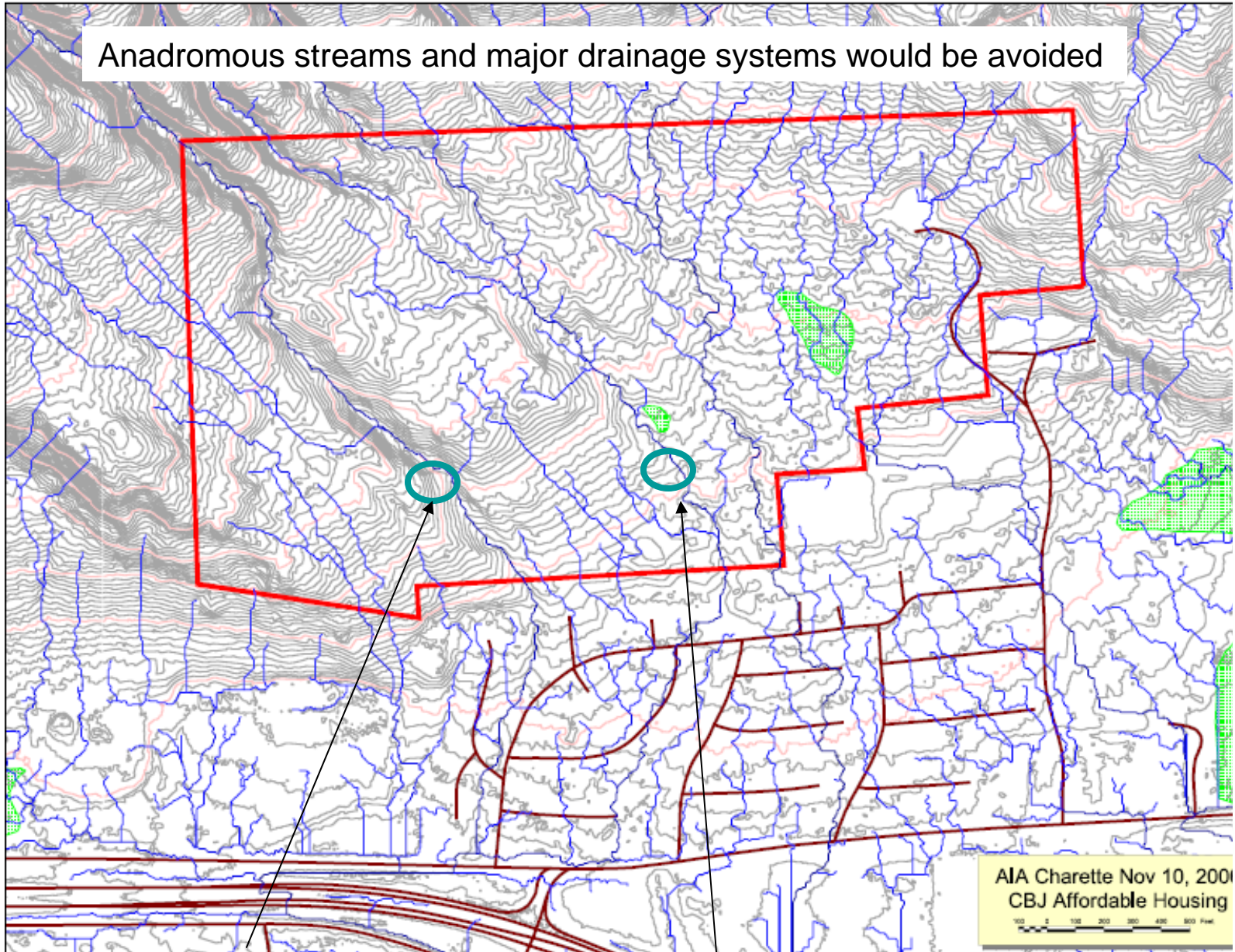


Site 1. Potential road connection through CBJ land

Private roads through Mfg. home park

Public road

Anadromous streams and major drainage systems would be avoided

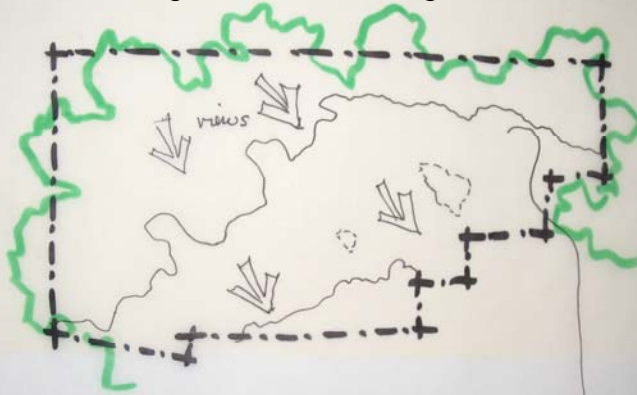


West Creek

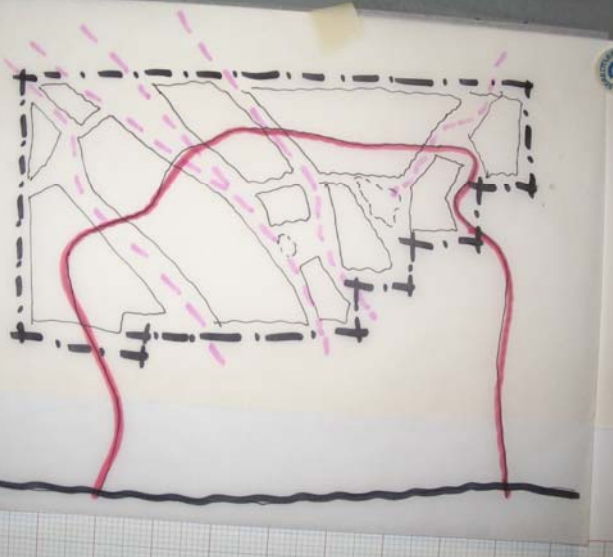
East Creek

5 ft. contour lines with
theoretical streams

Views, greenbelts, drainage



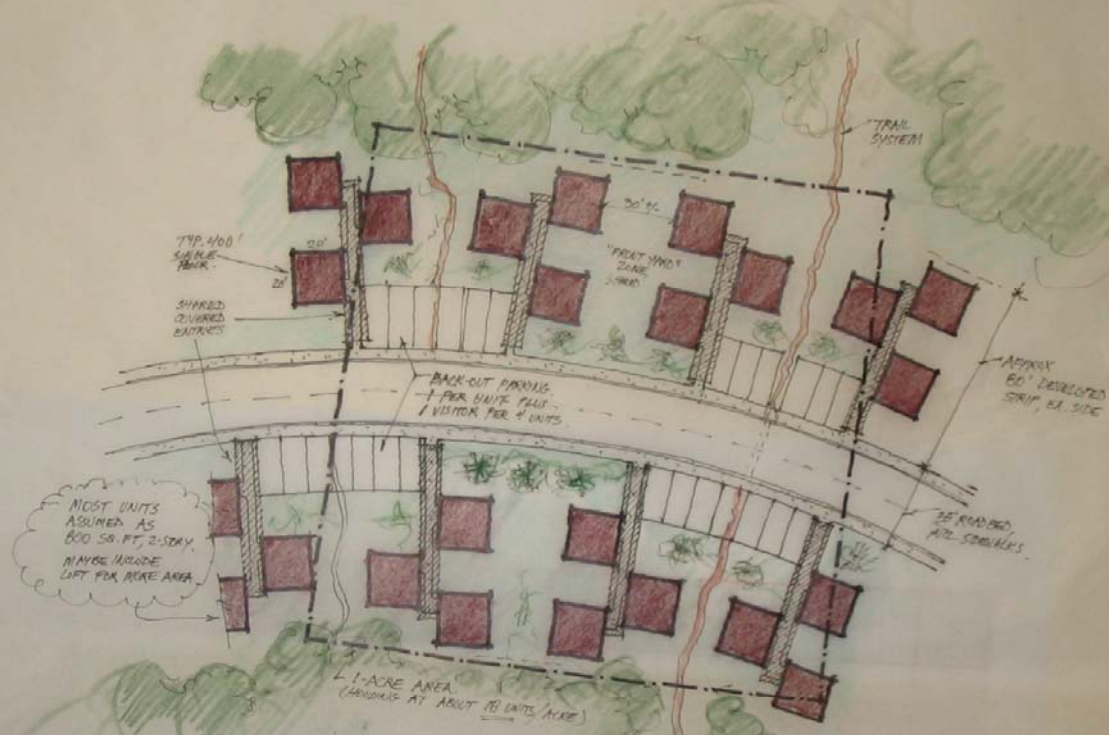
In a design workshop for each site, Site assets, constraints And opportunities would be identified and housing would be Developed around them.



Access roads, drainage, wetlands protected



Housing clustered to complement topography, drainage, open space, and roads



UNIT LAYOUT STUDY - 1"=30'

PAUL WELCHERS

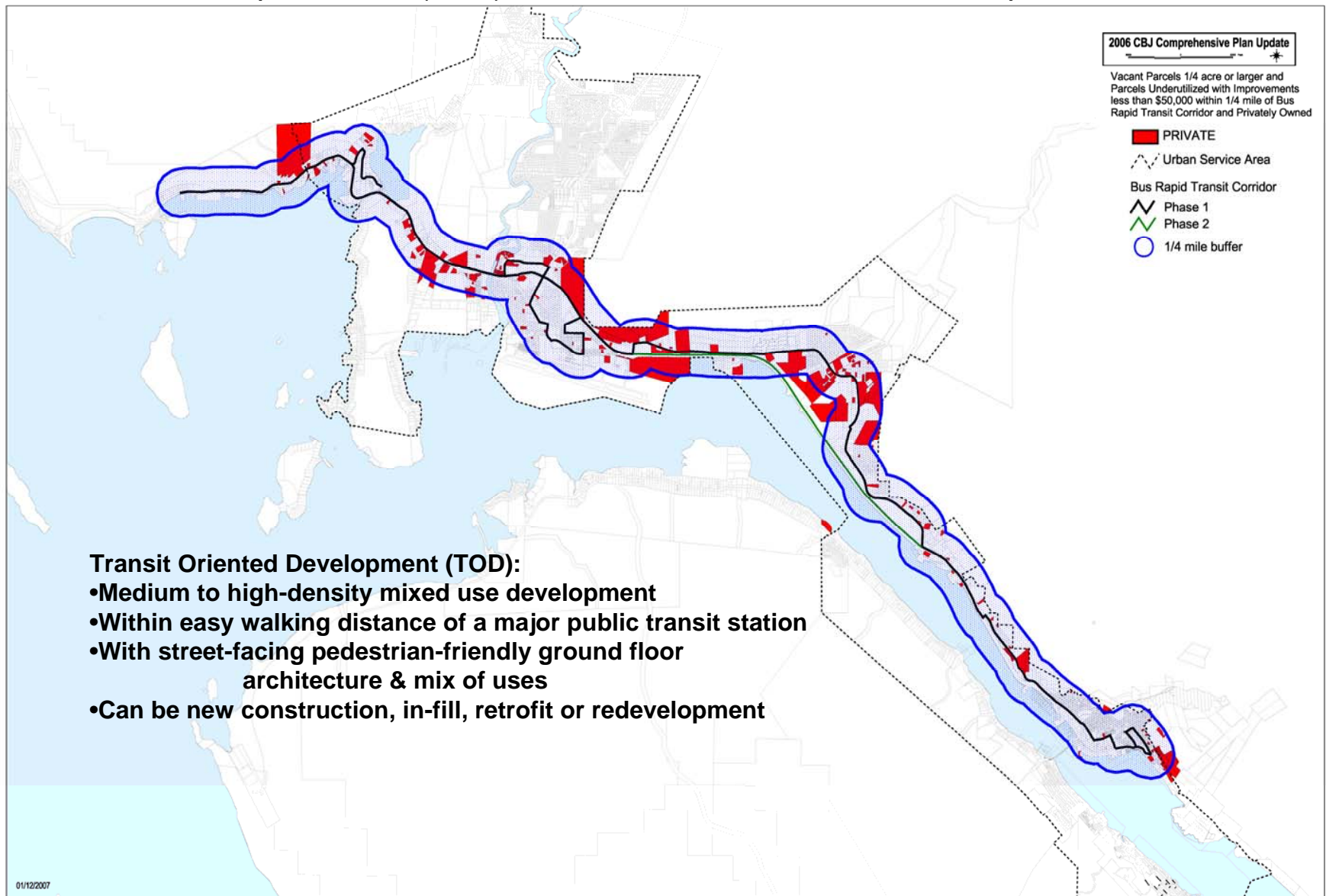
A mix of housing types would be integrated into the site design

Mixture of market-rate and below-market-rate-designated affordable housing units within a development that is compatible with the terrain of the property.

Target density: 10 to 30 units per acre Target home price: \$150,000 to \$200,000 (2006 dollars)

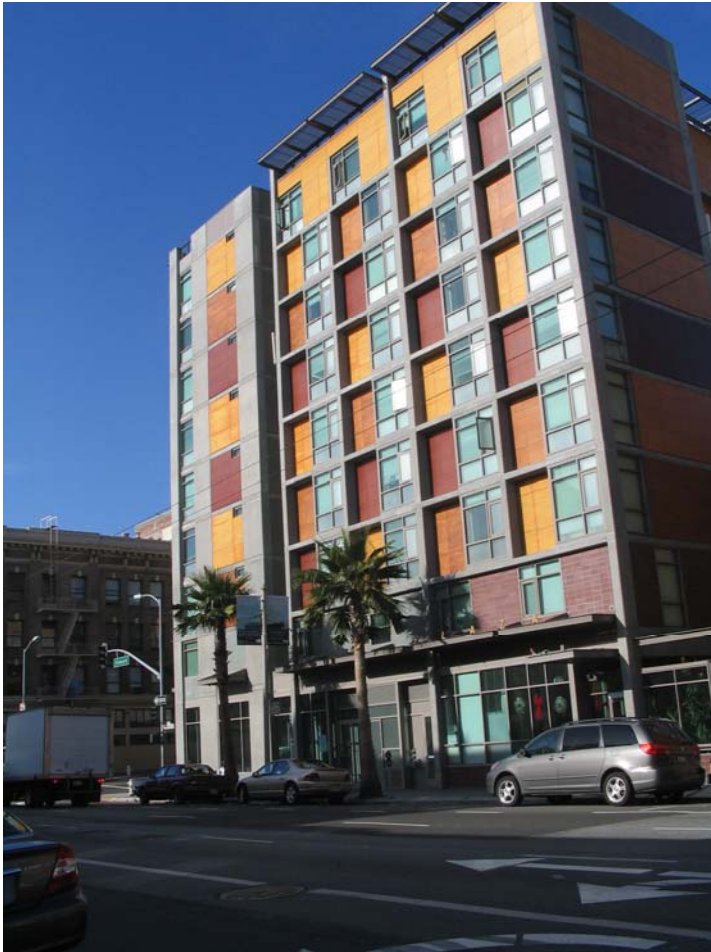


Bus Rapid Transit (BRT) Corridor---Transit Oriented Development



Because of poor Levels of Service on roads serving vacant lands in the Valley and on Douglas Island, staff is looking at vacant privately-owned lands located along transit corridors on the mainland as candidate high density, affordable housing for young and older adults and seasonal workers

Mixed Use Transit Oriented Development examples



TOD developments are, typically, 3 to 5 stories of housing above ground floor retail or other Pedestrian-oriented commercial space with parking behind the commercial space on 1 or 2 levels

Mixed use developments in along transit corridors and in shopping centers

