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Phased Build-out Analysis

Phased Build-out Analysis

**A Technical Report in Support of the
Environmental Impact Statement for the
Disposal and Reuse of
Naval Air Station Brunswick
Brunswick, Maine**

December 2009

Prepared for:

U.S. DEPARTMENT OF NAVY
BRAC Project Management Office, Northeast
Philadelphia, Pennsylvania

Prepared by:

ECOLOGY AND ENVIRONMENT, INC.
368 Pleasant View Drive
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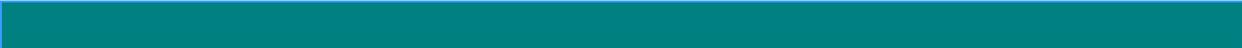
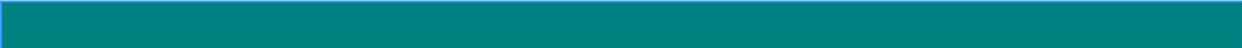


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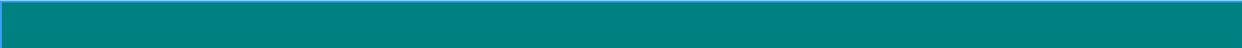
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List of Abbreviations and Acronyms

BLRA	Brunswick Local Redevelopment Authority
EIS	Environmental Impact Statement
FEMA	Federal Emergency Management Agency
GIS	geographic information system
MRRA	Midcoast Regional Redevelopment Authority
NAS	Naval Air Station
PBC	public benefit conveyance
Reuse Master Plan	Brunswick Naval Air Station Master Reuse Plan

1

Introduction

As part of the Environmental Impact Statement (EIS) for Naval Air Station (NAS) Brunswick, Maine, a full build-out analysis of the installation property was conducted for Alternatives 1 and 2 at 5-, 10-, 15-, and 20-year (full build-out) time frames. The build-out analysis is a projection of the maximum number of residential housing units and total floor area (in square feet) of commercial, retail, industrial, and educational building space allowed under current Town of Brunswick zoning regulations. The zoning regulations establish a framework (e.g., minimum lot size, maximum building height, and maximum impervious area per building lot) that can be used to broadly identify and project the maximum allowable development under Town of Brunswick land use laws, which, after disposal, will regulate the use and development of the installation. The results of the build-out analysis are used in the EIS to assess impacts on human and natural environmental resources.

The build-out analysis was necessary because the *Brunswick Naval Air Station Master Reuse Plan* does not identify specific conditions (e.g., scale of development, number of residential units, and square footage of non-residential floor space) that would result from full build-out of the property under Alternative 1. Without this data on future build-out conditions, analysis of some resource areas (e.g., land use, transportation) is not possible. The build-out analysis, however, is only a simplified projection of the maximum development conditions allowed under current zoning regulations and based on land use planning assumptions.

The results of the build-out analysis are used only for planning and assessment purposes and should not be interpreted as a definitive and absolute definition of future conditions upon full build-out of either Alternative 1 or Alternative 2. The final build-out of the installation is subject to many variables outside of the Navy's and developer's control, including future market conditions, changes to local and state land use regulations, and other development factors.

To ensure that the build-out analysis represents reasonably foreseeable conditions, the build-out methodology and final projections were reviewed by the Midcoast Regional Redevelopment Authority (MRRRA) during a meeting held in Brunswick, Maine, on August 26, 2008, and via numerous email communications (see Attachment 1). In addition, MRRRA provided planning assumptions for the analysis, including a build-out time line and development mix.

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Location and Build-out Alternatives

The build-out analysis projects the maximum build-out conditions allowed under current zoning regulations and planning assumptions for NAS Brunswick, including the McKean Street Housing Annex and the East Brunswick Radio Transmitter Site properties, at 5-, 10-, 15-, and 20-year (full build-out) time frames under two development alternatives. The three noncontiguous properties are located in the town of Brunswick, Cumberland County, Maine. The Sabino Hill Rake Station is not included in the build-out analysis since that property is being conveyed to the town of Phippsburg, Maine.

Alternative 1 is consistent with the *Brunswick Naval Air Station Master Reuse Plan* (Reuse Master Plan) as adopted by the Brunswick Local Redevelopment Authority (BLRA). Alternative 1 provides for a mix of land use types and densities, preserves open space and natural areas, incorporates elements based on smart-growth principles, and maintains the existing airfield for private aviation purposes.

Alternative 2 provides for the redevelopment of NAS Brunswick with a higher density of residential and community mixed-use development and no reuse of the existing airfield. Similar to Alternative 1, this alternative includes a mix of land use types, preserves open space and natural areas, and incorporates elements of smart-growth. This alternative is based upon a combination of the two non-airport alternatives originally developed by the BLRA.

Table 1 identifies the total acreage of land available within each land use district under both alternatives. Attachment 2 illustrates the land use plans for the alternatives. For more information on the alternatives, refer to Section 2 of the EIS.

Table 1 Land Use District Acreage

Land Use District	Alternative 1 (acres)	Alternative 2 (acres)
Airport Operations	500	0
Aviation-related Business	230	0
Professional Office	120	0
Community Mixed Use	175	490
Business and Technology	190	374
Education	200	314
Residential	215	400
Recreation/Open Space/Natural Areas	1,570	1,622
Total	3,200	3,200

3

Build-out Analysis Methodology

A build-out analysis is a projection of the maximum future development allowed under current development regulations. This analysis utilized existing zoning regulations for the NAS Brunswick property, including the *Town of Brunswick Zoning Ordinance* and the BNAS Reuse District Dimensional and Density Table for the Subdistrict, as adopted by the Town of Brunswick on July 20, 2009. The zoning regulations establish a framework (e.g., minimum lot size, maximum building height, and maximum impervious surface area per building lot) by which to identify and project the maximum allowable development permissible under the town’s land use laws. However, the build-out analysis provides only a projection of future conditions allowed under zoning regulations; actual final build-out of the property will be subject to market conditions and other development factors (e.g., population growth and net migration to the area).

Build-out of the NAS Brunswick property is proposed to be implemented over a 20-year period utilizing a phased development approach. The intent would be to redevelop the property in stages with the flexibility to accommodate market conditions. To project phased development of the NAS Brunswick property, this build-out analysis utilizes a proposed redevelopment time line provided by the MRRA. The time line identifies proposed development milestones for each land use district at 5-, 10-, 15-, and 20-year increments. Table 2 identifies the proposed MRRA redevelopment time line for the NAS Brunswick property. Attachment 3 includes the redevelopment time line provided by MRRA.

Table 2 Proposed Redevelopment Time Line

Land Use District	0-5 Years	6-10 Years	11-15 Years	16+ Years
Aviation-related Business	75% occupancy: Reuse of existing buildings	100%: Reuse 10%: Infill	50%: Infill	100%: Infill
Community Mixed Use	50% occupancy: Existing buildings 10% occupancy: Infill	100%: Existing 25%: Infill	50%: Infill	100%: Infill
Professional Office	No activity expected	25%: Infill	50%: Infill	75% - 100%: Infill
Business and Technology Industries	50% occupancy: Existing buildings 10% occupancy: Infill	100%: Existing 25%: Infill	50%: Infill	100%: Infill
Residential	25% occupancy: Existing	50% occupancy: Existing	75% occupancy: Existing	100% occupancy: Existing
Associated Projects	Widening of Bath Road: 100% completed Route 1 Connector: 100% completed	Internal Road System Completed		

Source: Boundy 2008.

3.1 Non-Residential Development

The build-out analysis for the aviation-related business district, the professional office, business, and technology industries district, and the education land use district results in a total projected floor area (square feet) that could reasonably be built in accordance with applicable town zoning regulations. The analysis of the community mixed-use district used a combination of both the non-residential and residential development methodologies. The following methodology was used to project the total square feet of non-residential floor area:

1. Total area in the land use district minus undevelopable lands (e.g., flood plains, streams).
2. Subtract the footprint of existing buildings (including building, parking, and minimum lot area).
3. Subtract land area of new public benefit conveyance (PBC) development.
4. Subtract partial land use constraints (e.g., rights-of-way plus 20% for lot variation, slope, and utilities).
5. Divide by the minimum lot size.
6. Allocate by development mix (i.e., civic and cultural uses, education facility, hotel, industry, warehouse, storage, office, retail and commercial, student housing, and transportation facility).
7. Calculate new floor area (Building Floor Area Calculation).
8. Add existing non-residential floor area.
9. Add new PBC development (floor area).

The result equals the total square feet of projected non-residential floor area by land use district and development mix.

3.2 Residential Development

The build-out analysis for the residential land use district results in a total projected number of units that could reasonably be built in accordance with applicable town zoning regulations (e.g., the Brunswick Naval Air Station Reuse District, Town of Brunswick zoning regulations). The following methodology was used to project the total number of residential units:

1. Total area in land use district minus undevelopable lands (e.g., flood plains, streams).
2. Subtract the footprint of existing buildings (including building, parking, and minimum lot area).

3. Subtract partial land use constraints (e.g., rights-of-way plus 20% for lot variation, slope, and utilities).
4. Multiply by the maximum residential units per acre.
5. Allocate by residential development mix (i.e., single family, town-home/condo, apartment, and senior housing by number of bedrooms).
6. Add existing residential units.

The result equals the total number of projected residential units.

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Assumptions

To project full build-out of the property, the following assumptions were made:

- The build-out analysis projects development conditions at 5-, 10-, 15-, and 20-year time frames.
- Full build-out is projected to take place over a 20-year period.
- All zoning requirements were obtained from the *Town of Brunswick Zoning Ordinance*, as amended on July 20, 2009, including Table A-III.7: Dimensional and Density Table for the Land Use Districts. If not specifically identified in the BNAS Reuse District zoning ordinance, zoning regulations for the property revert to the Town of Brunswick Zoning Ordinance.
- The build-out analysis includes the aviation-related business, professional office, community mixed-use, business and technology, education, and residential land use districts only.
- Land use calculations were made for NAS Brunswick, the McKeen Street Housing Annex, and the East Brunswick Radio Transmitter Site properties.
- Impervious surface areas include parking and building footprints only.
- Each parking space is approximately 420 square feet and includes associated drive space.
- Projected new construction will be added to existing building space (identified in Appendix D2, “Airport Scenario Facility Future Use Assessment Matrix,” of the Reuse Master Plan) and PBC development to calculate total build-out of the property. Other existing structures are assumed to be demolished and are not included in the build-out calculations. See Attachment 4 for a copy of the “Airport Scenario Facility Future Use Assessment Matrix.”
- The development mix (i.e., composition or type of residential, mixed use, education, commercial, retail, and industrial uses) identified is a projection and is used to represent the final development mix; however, the mix is subject to change based on market conditions and other factors.

- The time line for build-out of Alternative 2 utilizes the Alternative 1 redevelopment time line provided by MRRA. New residential development for Alternative 2 assumes build-out phases of 10% (5 years), 25% (10 years), 50% (15 years), and 100% (20 years).
- To ensure that the build-out analysis represents reasonably foreseeable conditions, the build-out methodology and development mix were reviewed by MRRA (see Attachment 1).
- Build-out assumes maximum density, i.e., minimum lot size (as many lots as possible) and maximum building size, where applicable. Existing structures will be ‘grandfathered’ into the build-out calculations, and new construction will be built out to the maximum extent allowed per the zoning regulations.
- The minimum number of floors will be used in lieu of the maximum number of floors to avoid overestimating the potential square footage of space that may be constructed.
- For the build-out analysis, the minimum lot size for the community-mixed use district is 10,000 square feet, and the minimum lot size for the education district is 4,000 square feet.
- Warehouse and industrial land uses are assumed to be one story in height.
- Office, commercial, and retail space located within the community mixed-use district is assumed to be one story in height, with residential dwelling units located on the second story.
- Residential development within the community mixed-use district is built out to the maximum allowable density (24 units per acre).
- The build-out analysis does not include the potential conversion of existing structures (e.g., single-family to two-family residences) or subdivision of lots, and it does not consider variances or special-use permits that would increase total housing or the amount of non-residential building space.
- A ‘Building Floor Area Calculation’ will be used in lieu of the ‘Maximum Building Footprint per Structure’ standard, where applicable, for non-residential properties, due to more restrictive physical limits placed on lots by other zoning restrictions (e.g., Maximum Impervious Surface Coverage, Parking Requirements).
- As part of the build-out analysis, a geographic information system (GIS) analysis of the property was conducted by Ecology and Environment, Inc., to identify the total land area that could potentially be developed and to identify land use constraints.

- In addition to right-of-way land use constraints, an additional 20% is deducted from total land available for development to account for other partial land use constraints (e.g., lot variations, slope, utilities).
- Total land-use constraints include Federal Emergency Management Agency (FEMA) flood zones, slopes greater than 20%, and the presence of surface water.
- Build-out does not consider common development plan approvals or other land-use variations.
- For the purpose of projecting build-out, each land use district is proportionally divided into specific development types (see Table 3). The development mix was provided by MRRA (see Attachment 1).

Table 3 Land Use District Development Mix

Land Use District	Development Type	Mix
Aviation-related Business	Industry, Warehouse, and Storage	40%
	Office	10%
	Transportation Facility	50%
Professional Office	Civic and Cultural	80%
	Retail and Commercial	20%
Business and Technology Industries	Industry, Warehouse, and Storage	75%
	Office	20%
	Retail and Commercial	5%
Education	Education Facility	60%
	Office	30%
	Retail and Commercial	10%
Community Mixed Use (Non-Residential)	Civic and Cultural	15%
	Office	50%
	Retail and Commercial	35%
Community Mixed Use (Residential)	Apartment (1 bedroom)	30%
	Apartment (2 bedroom)	25%
	Apartment (3 bedroom)	25%
	Apartment (4 bedroom)	0%
	Senior Housing (1 bedroom)	20%
Residential	Single Family (3 bedroom)	60%
	Single Family (4 bedroom)	20%
	Townhomes/Condos (2 bedroom)	10%
	Townhomes/Condos (3 bedroom)	10%

Source: Levesque and Boundy 2008.

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Build-out Projections

Table 4 includes a summary of the build-out projections resulting from the implementation of Alternative 1 and Alternative 2 over a 20-year period. The analysis includes the reuse of 653 existing residential units and 43 existing non-residential structures containing approximately 1,288,652 square feet of usable space. Worksheets containing the complete build-out analysis are included in Attachment 5.

Table 4 Build-out Projection Summary (Maximum Build-out)

	5-Year Total		10-Year Total		15-Year Total		20-Year Total	
	Alt 1	Alt 2						
Non-Residential: Total Floor Space (Square Feet)	1,084,052	1,549,147	2,725,984	3,593,002	5,156,772	6,066,544	9,194,085	11,013,628
Civic and Cultural	31,278	75,305	99,431	183,617	180,277	348,648	341,970	678,712
Education Facility	60,010	122,294	127,349	283,058	163,992	475,410	237,278	860,114
Industry, Warehouse, and Storage	260,964	443,401	697,474	1,060,018	1,582,402	1,926,101	3,006,030	3,658,267
Office	197,410	638,204	783,553	1,439,662	1,450,986	2,255,930	2,740,608	3,888,465
Retail and Commercial	148,747	269,943	359,726	626,648	543,613	1,060,455	911,385	1,928,070
Transportation Facility	385,642	0	658,452	0	1,235,502	0	1,956,815	0
Hotel or Motel (Rooms)	125	125	250	250	250	250	250	250
Residential (Units)	464	992	1,037	2,355	1,721	4,357	2,946	8,219
Single Family - 2 Bedroom	31	31	62	62	92	92	123	123
Single Family - 3 Bedroom	39	91	79	208	118	377	157	676
Single Family - 4 Bedroom	17	34	33	76	50	136	66	239
Single Family - 5 Bedroom	1	1	2	2	2	2	3	3
Townhome/Condo - 2 Bedroom	10	19	20	42	30	73	40	126
Townhome/Condo - 3 Bedroom	39	47	78	99	116	159	155	241
Townhome/Condo - 4 Bedroom	7	7	15	15	22	22	29	29
Townhome/Condo - 5 Bedroom	0	0	0	0	0	0	0	0
Apartment - 1 Bedroom	65	195	162	487	325	975	649	1,949
Apartment - 2 Bedroom	94	202	215	486	351	892	621	1,705
Apartment - 3 Bedroom	54	162	135	406	271	812	541	1,625
Apartment - 4 Bedroom	0	0	0	0	0	0	0	0
Senior Housing - 1 Bedroom	43	130	108	325	216	650	433	1,300
Student Housing	65	72	129	148	129	166	129	203

Note: Totals may not be exact due to rounding.

6

References

Boundy, V. 2009. Personal communication (email). Victoria Boundy, Midcoast Regional Redevelopment Authority, with Ron Bochenek, Ecology and Environment, Inc. Redevelopment timeline. January 27, 2009.

Levesque, S. and Boundy, V. 2008. Personal communication (in-person meeting). Steve Levesque and Victoria Boundy, Midcoast Regional Redevelopment Authority, with Ron Bochenek, Ecology and Environment, Inc. Build-out analysis meeting, Brunswick, Maine. August 26, 2008.

1

MRRA Supporting Materials

Meeting Minutes

EIS for the Disposal and Reuse of NAS Brunswick, Brunswick, Maine

Presentation of Buildout Analysis

MRRRA Conference Room

26 August 2008 (0830)

Attendees

- Steve Levesque (Executive Director, MRRRA)
- Victoria Boundy (Planning and Environmental Manager, MRRRA)
- Tom Stephan (BRAC PMO NE)
- Ron Bochenek (Ecology and Environment, Inc.)

Overview

Ecology and Environment (Ron Bochenek) and the BRAC PMO NE (Tom Stephan) met with the MRRRA to present and solicit comments on the buildout analysis of the property.

Buildout Analysis

A summary of an initial Full Buildout Analysis was presented to MRRRA for review and to solicit comments on the number of residential units and floor area of non-residential space projected. In addition, the methodology and assumptions used in the analysis were presented for comment and to determine if the MRRRA felt the buildout analysis was representative of their reasonable expectations for the buildout of the air station property. The following are the assumptions reviewed and agreed upon regarding the full buildout analysis:

- Analysis includes the maximum buildout of the aviation-related business, professional office, community mixed use, business and technology, education, and residential land use districts allowed per applicable zoning regulations. The analysis includes the NAS Brunswick, McKeen Street Housing Annex, and the East Brunswick Transmitter Site.
- The analysis will utilize the latest DRAFT Brunswick Naval Air Station Reuse District Zoning Ordinance, currently being developed by the MRRRA, and the Town of Brunswick Zoning Ordinance. The MRRRA will provide E & E with the latest version of the district zoning ordinance.
- Impervious surface area calculations include building footprint and parking area only.
- Each parking space is assumed to be approximately 420 square feet, which includes drive space.
- The 43 buildings identified in the “Airport Scenario Facility Future Use Assessment Matrix” are assumed to be reused in the analysis. All other structures will be demolished and eliminated from buildout calculations.

- The development mix used in the analysis represents reasonable foreseeable conditions and may change depending on future market conditions. The development mix was reviewed by MRRA and it was agreed that it would consist of the following:

Table 1: Development Mix for both Alternative 1 and 2		
Land Use District	Development Type	Mix
Aviation-Related Business	Industry, Warehouse, and Storage	40%
	Office	10%
	Transportation Facility	50%
Professional Office	Civic and Cultural	10%
	Retail and Commercial	10%
	Office	80%
Business and Technology	Industry, Warehouse, and Storage	75%
	Office	20%
	Retail and Commercial	5%
Education	Education Facility	60%
	Office	30%
	Retail and Commercial	0%
	Student Housing	10%
Community Mixed Use (Non-Residential)	Civic and Cultural	15%
	Office	40%
	Education Facility	10%
	Retail and Commercial	35%
Community Mixed Use (Residential)	Apartment (1 bedroom)	30%
	Apartment (2 bedroom)	25%
	Apartment (3 bedroom)	25%
	Apartment (4 bedroom)	0%
	Senior Housing (1 bedroom)	20%
Residential	Single Family (3 bedroom)	60%
	Single Family (4 bedroom)	20%
	Townhomes/Condos (2 bedroom)	10%
	Townhomes/Condos (3 bedroom)	10%

- Industrial, warehouse, and storage structures will be one story in height. All other structures, except residential, are assumed to be a maximum of two stories in height.
- Residential dwellings will be buildout to the maximum allowable density within the community mixed use land use district. Within this district it is assumed that non-residential land uses will be one-story in height with residential located on the second story.
- The buildout analysis does not include the potential conversion of existing structures, subdivision of lots, and variances or special use permits that would increase total housing or amount of non-residential floor area.
- A 'Building Floor Area Calculation' will be used to calculate an approximate floor area of non-residential space. The calculation will consider the maximum impervious surface area and minimum parking requirements as required by applicable zoning regulations.

- The total buildable land area will be reduced by total and partial land use constraints. Total constraints include identified FEMA flood zones, slopes greater than 20%, and a 50-foot buffer surrounding identified surface waters. Partial land use constraints include right-of-way requirements and an additional 20% reduction to account for lot variations, wetlands and other sensitive areas of concern.
- Buildout assumes the existing BEQ complex will be divided into 2 bedroom apartments (ratio 1:2), BOQ will become student housing (ratio 1:1), TVQ will become hotel rooms (ratio 1:1), and the Navy Lodge will become office space. PPV residential units will be reused as residential units at the same ratio as existing.

MRRA had no other concerns regarding the initial buildout projections or the methodology used. They stated that the buildout analysis, its assumptions, and its resulting projections were reasonable. All comments and concerns identified including the suggested changes to Alternative 2 land use district composition and development mix will be made.

Bochenek, Ronald

From: Victoria Boundy [victoriab@mrra.us]
Sent: Wednesday, September 10, 2008 11:56 AM
To: Bochenek, Ronald
Cc: tom.stephan.ctr@navy.mil; Steve Levesque
Subject: Build-Out: Comments

Ron and Tom,

Thank you for providing us with the draft build-out analysis, which Steve and I have reviewed. We did not have any issues overall with the build-out and the scenarios generated. We did have a few corrections, below, and a couple of questions.

Page 1:

- We have different land use district acreage numbers in our Reuse Plan than you provided (aside from the fact that ours were obviously rounded). Where did your figures come from? Our “acres available” numbers are the following:
 - Airport operations: 500
 - Aviation-related business: 230
 - Professional office: 120
 - Community Mixed Use: 175
 - Business and technology: 190
 - Education: 200
 - Residential: 215
 - Rec/OS/Natural: 1,570
- On this page, as well as page 10, we think you should do away with the category specific “Townhome/condo” and “apartment” and instead have it be one category called “Multifamily” which would include those more specific kinds.

Page 2:

- In the zoning table, there were some errors:
 - Community Mixed Use:
 - Minimum lot area: should be “None”
 - Minimum lot width: should be “None”
 - Max. Impervious (%) should be 100
 - Minimum building height should be 4
 - Education:
 - Min. front yard: should be none (this is a change from the version sent to you)
 - Min. building height: should be N/A (also a change)
- Parking standards are fine
- Street and Sidewalk Standards: these will be amended for the BNAS Reuse District. *Our consultant should be getting me a draft of these sometime today or tomorrow.*
- Question: How do you (or do you) address phasing and absorption analysis. How many dwelling units per year must be absorbed to arrive at build-out within the time period?

I think that’s all we have for now and I will get you the street/sidewalk standards soon.

Vicky

Bochenek, Ronald

From: Bochenek, Ronald
Sent: Thursday, July 23, 2009 8:54 AM
To: Brunswick
Subject: FW: Draft Build-out Analysis
Attachments: Draft Build-out Analysis.pdf; Attachment 3.doc

From: Bochenek, Ronald
Sent: Friday, March 13, 2009 4:20 PM
To: 'Victoria Boundy'
Cc: Bochenek, Ronald; 'Stephan, Tom CTR OASN (I&E) BRAC PMO NE'
Subject: Draft Build-out Analysis

Vicky:

Attached is a copy of the draft build-out analysis. Please review and provide any comments to me by the end of next week. Let's also plan on having a conference call to discuss. The analysis projects maximum residential and non-residential build-out of the site at 5-, 10-, 15-, and 20-year time periods. We will be utilizing this build-out to assess land use, traffic, socioeconomic, noise, air quality, and infrastructure impacts in the EIS. Of note, I did not attach a copy of Attachment 1 (figures of Alternative 1 and 2) and Attachment 2 (draft zoning amendment) since you should already have a copy of both.

Please do not distribute this analysis to anyone outside of your immediate review staff.

Call me with any questions and have a great weekend.

Ron

Ron J. Bochenek

ecology and environment, inc.

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Email: rbochenek@ene.com



Please consider the environment before printing this e-mail

Bochenek, Ronald

From: Victoria Boundy [victoriab@mrta.us]
Sent: Monday, March 23, 2009 4:41 PM
To: Bochenek, Ronald
Cc: Stephan, Tom CTR OASN (I&E) BRAC PMO NE; Steve Levesque
Subject: Phased Build-Out Analysis - Comments
Attachments: BNAS Street Standards 3.17.09.doc

Ron,

We have reviewed the Phased Build-Out Analysis and the methodology and assumptions all look fine. We just have the following comments/corrections. Thank you for taking the time to carry out a phased build-out, and let us know if you have any questions.

-Vicky

1. Attachment 3, Page 2: Street and Sidewalk Standards:

Please use the attached Street Standards for BNAS (3.17.09 revised)

2. The following building is marked "Yes" in "PBC Use" column and should be "No":

Building 585 (Chapel – Maine State Museum was recommended for a PBC but declined)

3. Attachment 3, Pages 19-20: Existing Buildings Worksheets:

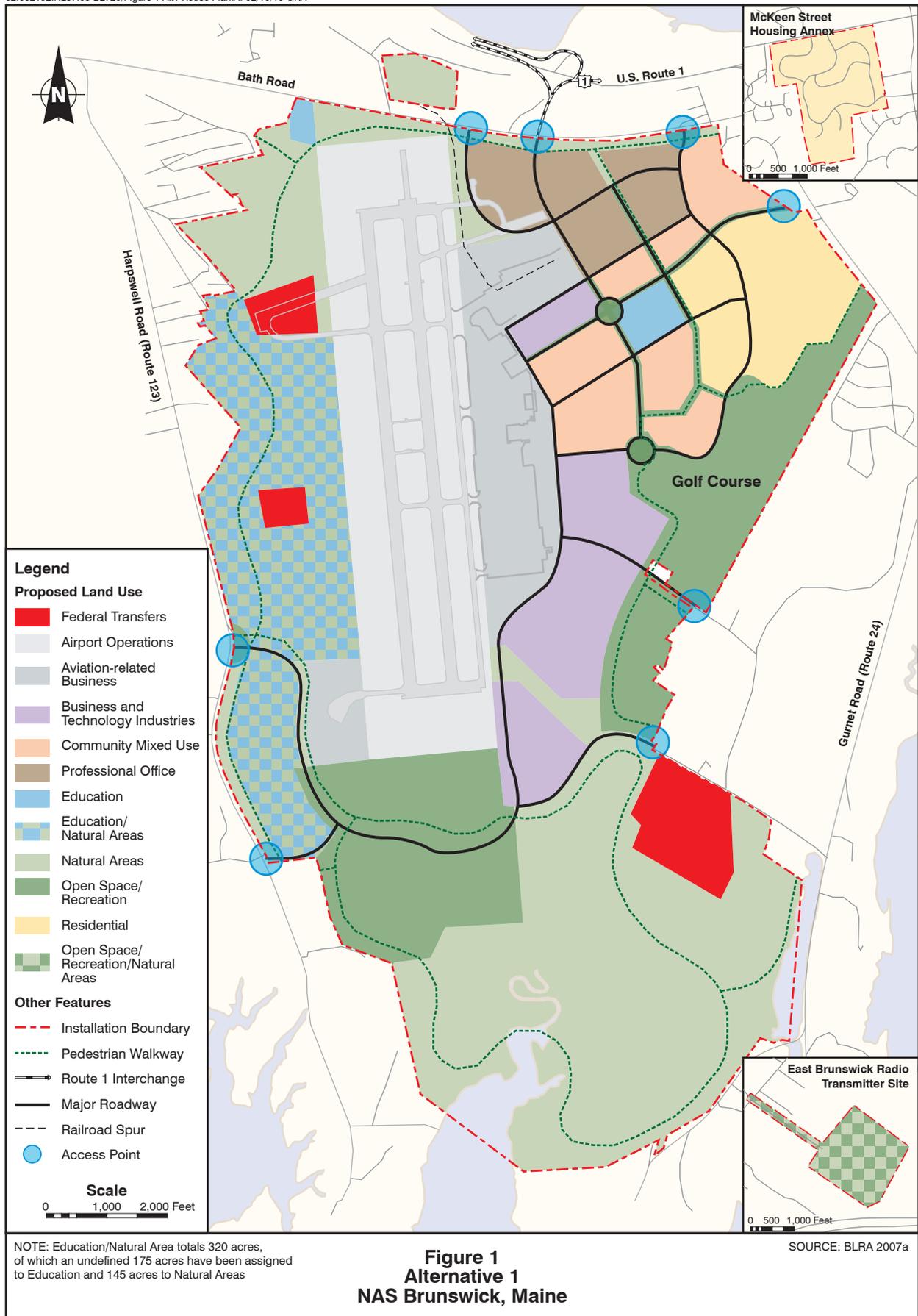
a. The following buildings should be marked "Yes" in the "PBC Use" column:

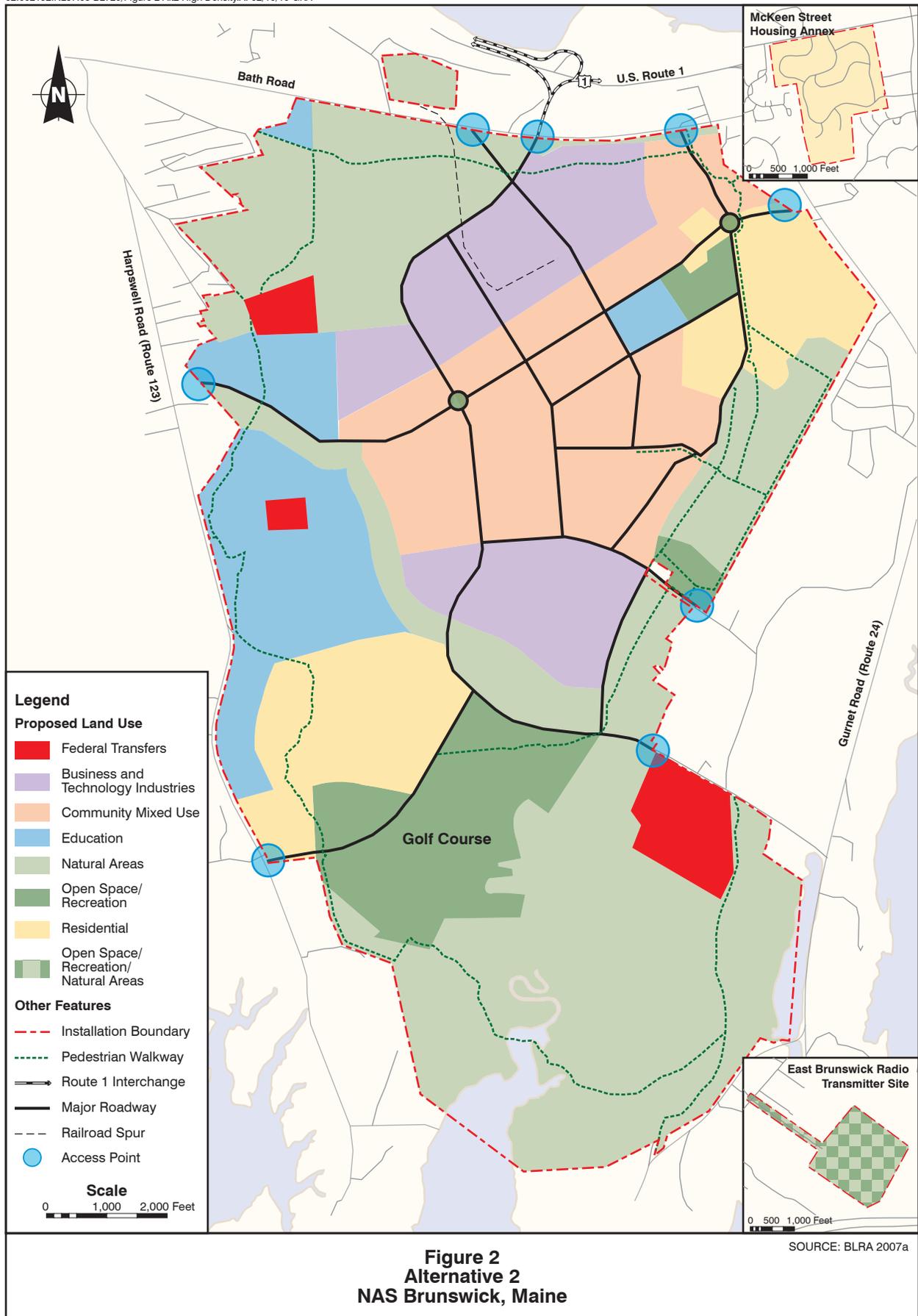
- i. Building 102 (Going to Town)
- ii. Building 211 (Also going to Town)
- iii. Building 644 (Bowdoin College)
- iv. The following buildings, for Airport PBC (not yet granted):
 1. Building 6 (Maintenance Hangar)
 2. Building 200 (Operations Control Tower Bldg.)
 3. 292 (Fire/Rescue Facility)
 4. 45 (Hazardous Waste Transfer Facility)
 5. 86 (GSE Maintenance Shop)
 6. 4/250 (Command Officer Headquarters)
 7. 5 (Maintenance Hangar)
 8. 554 (Unnamed, as far as we know)
 9. 611 (Unnamed)
 10. 555 (Operational Storage)
 11. 553 (Recycling Facility)
 12. 153 (Unnamed)

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2

Alternative Figures





3

Development Time Line

Bochenek, Ronald

From: Victoria Boundy [victoriab@mrra.us]
Sent: Tuesday, January 27, 2009 9:36 AM
To: Bochenek, Ronald
Cc: Stephan, Tom CTR OASN (I&E) BRAC PMO NE; Steve Levesque
Subject: Redevelopment Timeline
Attachments: 1.27.09 EIS Memo.doc; 1.27.09 Redevelopment Timeline.doc

Ron,

As requested, here is our anticipated redevelopment timeline, for your work on phased impacts as part of the EIS. If you are planning a visit to BNAS, we would be pleased to meet with you to go over this information, as well as get an update on overall progress with the EIS. Please let me know if we can schedule a meeting, and feel free to contact me with any questions or if you need any additional information.

Thanks,

Vicky

Victoria Boundy
Planning & Environmental Manager
MRRRA
5450 Fitch Avenue
Brunswick, ME 04011
207-798-6512
www.mrra.us



Memo

To: Ron Bochenek
From: Victoria Boundy
CC: Tom Stephan
Steve Levesque
Date: October 6, 2009
Re: EIS Phased Impacts

We are pleased that the Navy is carrying out phased impacts for all BNAS resource areas as part of the Environmental Impact Statement. Per your request, attached is an anticipated redevelopment timeline for the BNAS property, a plan to implement our adopted Reuse Plan. As requested, we laid out our hoped-for redevelopment priorities for five, ten and fifteen years from now. As you may know, we have begun our Airport Master Plan, Operations Plan, and Base Housing Strategy, and hope to begin our Energy Feasibility Study soon. Obviously, these studies will shed more light on the feasibility and timeline of our priority projects.

Please let me know if you need further information.



MRRRA Redevelopment Timeline

BNAS Reuse Districts	0-5 Years	6-10 Years	11-15 Years	16+ Years
Aviation-Related (AR)	75% occupancy: Reuse of existing buildings	100%: Reuse 10%: Infill	50%: Infill	100%: Infill
Community Mixed Use (CMU)	50% occupancy: Existing buildings 10% occupancy: Infill	100%: Existing 25%: Infill	50%: Infill	100%: Infill
Professional Office (PO)	No activity expected	25%: Infill	50%: Infill	75% - 100%: Infill
Business and Technology Industries (B&TI)	50% occupancy: Existing buildings 10% occupancy: Infill	100%: Existing 25%: Infill	50%: Infill	100%: Infill
Residential	25% occupancy: Existing	50% occupancy: Existing	75% occupancy: Existing	100% occupancy: Existing
Associated Projects	Widening of Bath Road: 100% completed Route 1 Connector: 100% completed	Internal Road System Completed		

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Airport Scenario Facility Future Use Assessment Matrix

Airport Scenario Facility Future Use Assessment Matrix

Facility Attributes							Existing or Alternate Uses										Public Visioning Land Use Preferences	
Bldg. No.	Facility Name	Current Use	Year Built	Year Improved	Square Feet	Planning Area	Warehouse / Distribution	Manufacturing / Light Industrial	Professional Office	Education / Training	Retail / Commercial Services	Aviation	Recreational / Cultural / Civic	Hotel / Lodging	Institutional Housing	Single Family / Duplex Residential		Multi-Family Residential
5	Maintenance Hangar	Maintenance Hangar, Offices, Shops	1982		163,454	2	1	1	3	2	3	●	2	3	3	x	3	Aviation
6	Maintenance Hangar	Maintenance Hangar, Offices, Shops	2005		166,335	2	1	1	3	2	3	●	2	3	3	x	3	Aviation
9	Administrative Space (Vacant)	Office	1943	1985	8,723	4	x	3	●	2	3	x	x	x	x	x	x	Multiple Uses
11	Navy Exchange Retail Complex	Navy Exchange Retail Complex	1981		52,381	4	2	2	3	2	●	x	3	x	x	x	x	Multiple Uses
19	Public Works Shops	Carpentry Shop	1981		6,000	5	1	●	3	3	3	3	x	x	x	x	x	Parks/OS, Business/Industrial
20	Community Facilities	Post Office, Credit Union, Offices	1943		25,871	4	x	x	3	3	●	x	x	3	3	x	x	Multiple Uses
21	Child Care Center	Child Care Center	1983		4,975	4	x	x	3	●	3	x	2	x	3	x	3	Multiple Uses
24	Personnel Support Det Bldg	Office	1982		10,000	4	x	x	●	1	3	x	1	x	x	x	x	Multiple Uses
25	Indoor Fitness Cntr	Gymnasium, Racquetball, Fitness Facility	1983	1996	16,658	4	2	2	3	2	2	x	●	x	3	x	x	Multiple Uses
26	Child Care Center	Child Care Center	1990		6,496	4	x	3	1	●	2	x	2	x	3	x	3	Multiple Uses
27	Family Services Center	Child Care Center, Office	1984		7,862	4	x	x	1	●	2	x	x	x	x	x	x	Multiple Uses
29	Auto Hobby Shop	Automotive Repair, Office, Storage	1988		12,000	5	2	●	3	3	2	x	x	x	x	x	x	Parks/OS, Business/Industrial
31	Navy Lodge	Housing/Hotel	1999		15,054	4	x	x	2	2	x	x	x	●	1	x	2	Multiple Uses
51	Hazardous Waste Facility	Hazardous Waste Facility	2005		5,000	5	1	●	3	2	2	x	3	x	x	x	x	Parks/OS, Business/Industrial
53	Public Works Shop	Office	1996	1998	10,000	5	2	2	●	2	3	x	2	x	3	x	x	Parks/OS, Business/Industrial
54	Applied Instruction Building	Applied Instruction	1988		30,000	4	x	2	1	●	3	1	x	x	x	x	x	Multiple Uses
55	Police/Security Station	Police/Public Safety Offices	2005		11,000	5	x	1	2	2	3	x	●	x	x	x	x	Parks/OS, Business/Industrial
78	Golf Clubhouse	Golf Clubhouse, Pro Shop, Restaurant	1981		3,040	6	x	x	3	2	2	x	●	x	x	x	x	Parks/OS
81	Chrimp Facility	Equipment Storage	1980		7,000	5	1	●	3	3	3	1	3	x	3	x	x	Parks/OS, Business/Industrial
86	Ground Support Equipment Shop	Equipment Maintenance and Storage	1992		31,980	2	●	1	3	3	3	1	3	x	x	x	x	Aviation
102	Indoor Small Arms Range	Small Arms Range	2004		4,975	4	x	2	x	1	3	x	●	x	x	x	x	Multiple Uses
150	Naval Air Reserve Center	Office	1992		13,196	4	x	3	●	1	3	x	2	3	x	x	x	Multiple Uses
151	Naval Surface Reserve Center	Office	2002		24,480	4	1	1	●	1	3	x	2	x	x	x	x	Multiple Uses
201	Galley/Neptune Hall	Mess Area, Club, Bar, Kitchen, etc.	1953		9,425	5	x	3	3	2	●	x	2	3	3	x	3	Parks/OS, Business/Industrial
211	Physical Fitness Facility	Physical Fitness Facility, Gym, Offices	1954		50,984	4	x	x	3	2	3	x	●	x	x	x	x	Multiple Uses
221	Thrift Shop	Thrift Shop Retail	1999		1,600	5	x	x	2	2	●	x	x	x	x	x	x	Parks/OS, Business/Industrial
223	NMCI Building	Office	1953		4,284	4	3	3	●	2	3	x	2	x	x	x	x	Multiple Uses
225	Auto Equipment Repair Shop	Vacant	1953	1991	15,020	4	3	●	x	x	3	x	x	x	x	x	x	Multiple Uses
250	Maintenance Hangar	Maintenance Hangar, Offices, Shops	1956	1985	184,400	2	1	1	2	2	3	●	2	3	3	x	3	Aviation
252	Auto Equipment Repair Shop	Vacant	1957	1991	5,100	4	3	●	x	x	3	x	x	x	x	x	x	Multiple Uses
292	Fire/Rescue Facility	Fire/Rescue Facility	1957	1984	10,665	2	x	x	x	3	x	1	●	x	x	x	x	Aviation
294	Warehouse	Warehouse	1956	1980	64,530	4	●	1	3	3	3	2	x	x	x	x	x	Multiple Uses
512	Bachelor Officer Quarters	Housing	1958		61,882	4	x	x	3	3	x	x	x	3	2	x	●	Multiple Uses
538	NX Service Station	Automotive Repair, Fuel Dispensing	1957	1980	5,292	4	x	x	x	x	●	x	x	x	x	x	x	Multiple Uses
555	Sonobouy / Vehicle Storage	Vehicle Storage	1959	1989	6,400	2	●	1	3	3	x	1	x	x	x	x	x	Aviation
583	Bowling Center/Rec Mall	Bowling Alley, Food Service, Recreation	1965	1979	19,380	4	3	3	2	3	1	x	●	x	x	x	x	Multiple Uses
584	PW Shops	Maintenance Shops and Storage	1965	1980	7,200	5	1	●	3	3	3	x	2	x	x	x	x	Parks/OS, Business/Industrial
585	Chapel	Chapel, Religious Education	1965		13,610	4	x	x	2	3	3	x	●	x	3	x	3	Multiple Uses
590	Transportation MaintenanceShops	Transportation Maintenance Shops, Offices	2004		8,000	5	1	●	3	1	3	1	2	x	x	x	x	Parks/OS, Business/Industrial
644	Operational Trainer Bldg	Office, Training Space	1979	1986	13,571	4	x	2	3	●	x	1	2	x	x	x	x	Multiple Uses
645	Medical/Dental Clinic	Medical/Dental Clinic and Offices	1979		31,559	4	x	2	●	2	2	x	1	3	3	x	3	Multiple Uses
744	Bachelor Enlisted Quarters	Housing	2002		7,083	4	x	x	2	x	x	x	x	2	1	1	●	Multiple Uses
750	Transient Visitor Quarters	Housing/Hotel	2004		115,000	4	x	x	2	2	x	x	x	●	1	x	2	Multiple Uses
751	School Age Child Care Center	Child Care Center	2003		2,500	4	x	x	2	●	2	x	2	x	x	x	x	Multiple Uses

- = Existing Facility Use
- 1 = Minimal Facility Adaptation Required
- 2 = Moderate Facility Adaptation Required
- 3 = Significant Facility Adaptation Required
- x = Generally Not Adaptable to Specified Use

Building / Architectural
Adaptability Analysis

Planning Area / Land Use
Compatibility Analysis

- = Compatible Use for Planning Area
- = Incompatible Use for Planning Area

Non-Airport Scenario Facility Future Use Assessment Matrix

Facility Attributes							Existing or Alternate Uses										Public Visioning Land Use Preferences	
Bldg. No.	Facility Name	Current Use	Year Built	Year Improved	Square Feet	Planning Area	Warehouse / Distribution	Manufacturing / Light Industrial	Professional Office	Education / Training	Retail / Commercial Services	Aviation	Recreational / Cultural / Civic	Hotel / Lodging	Institutional Housing	Single Family / Duplex Residential		Multi-Family Residential
5	Maintenance Hangar	Maintenance Hangar, Offices, Shops	1982		163,454	2	1	1	3	2	3	●	2	3	3	x	3	Tech/R&D, Business/Industrial
6	Maintenance Hangar	Maintenance Hangar, Offices, Shops	2005		166,335	2	1	1	3	2	3	●	2	3	3	x	3	Tech/R&D, Business/Industrial
9	Administrative Space (Vacant)	Office	1943	1985	8,723	4	x	3	●	2	3	x	x	x	x	x	x	Multiple Uses
11	Navy Exchange Retail Complex	Navy Exchange Retail Complex	1981		52,381	4	2	2	3	2	●	x	3	x	x	x	x	Multiple Uses
19	Public Works Shops	Carpentry Shop	1981		6,000	5	1	●	3	3	3	3	x	x	x	x	x	Parks/OS, Business/Industrial
20	Community Facilities	Post Office, Credit Union, Offices	1943		25,871	4	x	x	3	3	●	x	x	3	3	x	x	Multiple Uses
21	Child Care Center	Child Care Center	1983		4,975	4	x	x	3	●	3	x	2	x	3	x	3	Multiple Uses
24	Personnel Support Det Bldg	Office	1982		10,000	4	x	x	●	1	3	x	1	x	x	x	x	Multiple Uses
25	Indoor Fitness Cntr	Gymnasium, Racquetball, Fitness Facility	1983	1996	16,658	4	2	2	3	2	2	x	●	x	3	x	x	Multiple Uses
26	Child Care Center	Child Care Center	1990		6,496	4	x	3	1	●	2	x	2	x	3	x	3	Multiple Uses
27	Family Services Center	Child Care Center, Office	1984		7,862	4	x	x	1	●	2	x	x	x	x	x	x	Multiple Uses
29	Auto Hobby Shop	Automotive Repair, Office, Storage	1988		12,000	5	2	●	3	3	2	x	x	x	x	x	x	Parks/OS, Business/Industrial
31	Navy Lodge	Housing/Hotel	1999		15,054	4	x	x	2	2	x	x	x	●	1	x	2	Multiple Uses
51	Hazardous Waste Facility	Hazardous Waste Facility	2005		5,000	5	1	●	3	2	2	x	3	x	x	x	x	Parks/OS, Business/Industrial
53	Public Works Shop	Office	1996	1998	10,000	5	2	2	●	2	3	x	2	x	3	x	x	Parks/OS, Business/Industrial
54	Applied Instruction Building	Applied Instruction	1988		30,000	4	x	2	1	●	3	1	x	x	x	x	x	Multiple Uses
55	Police/Security Station	Police/Public Safety Offices	2005		11,000	5	x	1	2	2	3	x	●	x	x	x	x	Parks/OS, Business/Industrial
78	Golf Clubhouse	Golf Clubhouse, Pro Shop, Restaurant	1981		3,040	6	x	x	3	2	2	x	●	x	x	x	x	Parks/OS
81	Chrimp Facility	Equipment Storage	1980		7,000	5	1	●	3	3	3	1	3	x	3	x	x	Parks/OS, Business/Industrial
86	Ground Support Equipment Shop	Equipment Maintenance and Storage	1992		31,980	2	●	1	3	3	3	1	3	x	x	x	x	Tech/R&D, Business/Industrial
102	Indoor Small Arms Range	Small Arms Range	2004		4,975	4	x	2	x	1	3	x	●	x	x	x	x	Multiple Uses
150	Naval Air Reserve Center	Office	1992		13,196	4	x	3	●	1	3	x	2	3	x	x	x	Multiple Uses
151	Naval Surface Reserve Center	Office	2002		24,480	4	1	1	●	1	3	x	2	x	x	x	x	Multiple Uses
201	Galley/Neptune Hall	Mess Area, Club, Bar, Kitchen, etc.	1953		9,425	5	x	3	3	2	●	x	2	3	3	x	3	Parks/OS, Business/Industrial
211	Physical Fitness Facility	Physical Fitness Facility, Gym, Offices	1954		50,984	4	x	x	3	2	3	x	●	x	x	x	x	Multiple Uses
221	Thrift Shop	Thrift Shop Retail	1999		1,600	5	x	x	2	2	●	x	x	x	x	x	x	Parks/OS, Business/Industrial
223	NMCI Building	Office	1953		4,284	4	3	3	●	2	3	x	2	x	x	x	x	Multiple Uses
225	Auto Equipment Repair Shop	Vacant	1953	1991	15,020	4	3	●	x	x	3	x	x	x	x	x	x	Multiple Uses
250	Maintenance Hangar	Maintenance Hangar, Offices, Shops	1956	1985	184,400	2	1	1	2	2	3	●	2	3	3	x	3	Tech/R&D, Business/Industrial
252	Auto Equipment Repair Shop	Vacant	1957	1991	5,100	4	3	●	x	x	3	x	x	x	x	x	x	Multiple Uses
292	Fire/Rescue Facility	Fire/Rescue Facility	1957	1984	10,665	2	x	x	x	3	x	1	●	x	x	x	x	Tech/R&D, Business/Industrial
294	Warehouse	Warehouse	1956	1980	64,530	4	●	1	3	3	3	2	x	x	x	x	x	Multiple Uses
512	Bachelor Officer Quarters	Housing	1958		61,882	4	x	x	3	3	x	x	x	3	2	x	●	Multiple Uses
538	NX Service Station	Automotive Repair, Fuel Dispensing	1957	1980	5,292	4	x	x	x	x	●	x	x	x	x	x	x	Multiple Uses
555	Sonobouy / Vehicle Storage	Vehicle Storage	1959	1989	6,400	2	●	1	3	3	x	1	x	x	x	x	x	Tech/R&D, Business/Industrial
583	Bowling Center/Rec Mall	Bowling Alley, Food Service, Recreation	1965	1979	19,380	4	3	3	2	3	1	x	●	x	x	x	x	Multiple Uses
584	PW Shops	Maintenance Shops and Storage	1965	1980	7,200	5	1	●	3	3	3	x	2	x	x	x	x	Parks/OS, Business/Industrial
585	Chapel	Chapel, Religious Education	1965		13,610	4	x	x	2	3	3	x	●	x	3	x	3	Multiple Uses
590	Transportation Maintenance Shops	Transportation Maintenance Shops, Offices	2004		8,000	5	1	●	3	1	3	1	2	x	x	x	x	Parks/OS, Business/Industrial
644	Operational Trainer Bldg	Office, Training Space	1979	1986	13,571	4	x	2	3	●	x	1	2	x	x	x	x	Multiple Uses
645	Medical/Dental Clinic	Medical/Dental Clinic and Offices	1979		31,559	4	x	2	●	2	2	x	1	3	3	x	3	Multiple Uses
744	Bachelor Enlisted Quarters	Housing	2002		7,083	4	x	x	2	x	x	x	x	2	1	1	●	Multiple Uses
750	Transient Visitor Quarters	Housing/Hotel	2004		115,000	4	x	x	2	2	x	x	x	●	1	x	2	Multiple Uses
751	School Age Child Care Center	Child Care Center	2003		2,500	4	x	x	2	●	2	x	2	x	x	x	x	Multiple Uses

- = Existing Facility Use
- 1 = Minimal Facility Adaptation Required
- 2 = Moderate Facility Adaptation Required
- 3 = Significant Facility Adaptation Required
- x = Generally Not Adaptable to Specified Use

Building / Architectural
Adaptability Analysis

Planning Area / Land Use
Compatibility Analysis
ATT4-4

- = Compatible Use for Planning Area
- = Incompatible Use for Planning Area

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Build-out Worksheets

Build-out Worksheet (maximum build-out by land use district)

Aviation-Related Business District

	Alternative 1	Alternative 2						
1. Total land in District (acres) ^a	230.00	0						
2. Subtract undevelopable lands (acres) ^b	-0	-0						
3. Subtract footprint of existing buildings (acres) ^c	-21.38	-0						
4. Subtract total footprint of PBCs in district (acres) ^d	-0	-0						
5. Total - developable land (acres)	208.62	0						
6. Total - developable land (sq ft)	9,087,622	0						
7. Skip to step #12 if NEGATIVE number			11. Calculate new floor area – multiply number of parcels by minimum floor area (sq ft) ^h		12. Add existing and new PBC Floor Area (sq ft) ⁱ		13. Projected build-out (sq ft or number of units)	
8. Subtract partial land use constraint (0.27) ^e	6,636,078	0						
9. Divide by Minimum Lot Area (20,000 sq ft) ^f	332	0						
10. Multiply by Development Mix (number of parcels) ^g			Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 1	Alternative 2
Civic and Cultural	0	0	0	0	0	0	0	0
Education Facility	0	0	0	0	0	0	0	0
Hotel or Motel (Units)	0	0	0	0	0	0	0	0
Industry, Warehouse, and Storage	133	0	1,154,100	0	1,203,145	0	1,203,145	0
Office	33	0	150,820	0	150,820	0	150,820	0
Retail and Commercial	0	0	0	0	0	0	0	0
Student Housing (Units)	0	0	0	0	0	0	0	0
Transportation Facility	166	0	1,442,626	0	1,956,815	0	1,956,815	0
Total Non-Residential Floor Space (Square Feet)							3,310,780	0
Total Residential (# of Units)							0	0

Note:

^a See 'Table A – Developable Land, Acres Available'

^b See 'Table A – Developable Land, Total Land Use Constraints'

^c See 'Table B – Reuse of Existing Building Calculations'

^d See 'Table C – Public Benefit Conveyance Calculations'

^e See 'Table D - Partial Land Use Constraint Calculations, Total'

^f See 'Table E - *Town of Brunswick Zoning Ordinance* and the BNAS Reuse District Dimensional and Density Table for the Subdistrict, as adopted July 20, 2009, Minimum Lot Area' for the appropriate land use district

^g See 'Table F - Development Mix'

^h See 'Table G - Minimum Floor Area Calculation, Approximate Floor Area' for the appropriate land use district and use

ⁱ See 'Table B – Reuse of Existing Building Calculations' and 'Table C – Public Benefit Conveyance Calculations'

Build-out Worksheet (maximum build-out by land use district)

Professional Office District

	Alternative 1	Alternative 2						
1. Total land in District (acres) ^a	120.00	0						
2. Subtract undevelopable lands (acres) ^b	-1.09	0						
3. Subtract footprint of existing buildings (acres) ^c	-0	0						
4. Subtract total footprint of PBCs in district (acres) ^d	-0	0						
5. Total - developable land (acres)	118.91	0						
6. Total - developable land (sq ft)	5,179,720	0						
7. Skip to step #12 if NEGATIVE number								
8. Subtract partial land use constraint (0.33) ^e	3,468,160	0	11. Calculate new floor area – multiply number of parcels by minimum floor area (sq ft) ^h		12. Add existing and new PBC Floor Area (sq ft) ⁱ		13. Projected build-out (sq ft or number of units)	
9. Divide by Minimum Lot Area (10,000 sq ft) ^f	347	0	Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 1	Alternative 2
10. Multiply by Development Mix (number of parcels) ^g								
Civic and Cultural	35	0	103,527	0	103,527	0	103,527	0
Education Facility	0	0	0	0	0	0	0	0
Hotel or Motel (Units)	0	0	0	0	0	0	0	0
Industry, Warehouse, and Storage	0	0	0	0	0	0	0	0
Office	277	0	1,261,149	0	1,261,149	0	1,261,149	0
Retail and Commercial	35	0	127,272	0	127,272	0	127,272	0
Student Housing (Units)	0	0	0	0	0	0	0	0
Transportation Facility	0	0	0	0	0	0	0	0
Total Non-Residential Floor Space (Square Feet)							1,491,948	0
Total Residential (# of Units)							0	0

Note:

^a See 'Table A – Developable Land, Acres Available'

^b See 'Table A – Developable Land, Total Land Use Constraints'

^c See 'Table B – Reuse of Existing Building Calculations'

^d See 'Table C – Public Benefit Conveyance Calculations'

^e See 'Table D - Partial Land Use Constraint Calculations, Total'

^f See 'Table E - *Town of Brunswick Zoning Ordinance* and the BNAS Reuse District Dimensional and Density Table for the Subdistrict, as adopted July 20, 2009, Minimum Lot Area' for the appropriate land use district

^g See 'Table F - Development Mix'

^h See 'Table G - Minimum Floor Area Calculation, Approximate Floor Area' for the appropriate land use district and use

ⁱ See 'Table B – Reuse of Existing Building Calculations' and 'Table C – Public Benefit Conveyance Calculations'

Build-out Worksheet (maximum build-out by land use district)

Community Mixed Use District

	Alternative 1	Alternative 2
1. Total land in District (acres) ^a	175.00	490.00
2. Subtract undevelopable lands (acres) ^b	-0.02	-6.21
3. Subtract footprint of existing buildings (acres) ^c	-27.37	-52.62
4. Subtract total footprint of PBCs in district (acres) ^d	-6.00	-6.00
5. Total - developable land (acres)	141.61	425.17
6. Total - developable land (sq ft)	6,168,338	18,520,558
7. Skip to step #13 if NEGATIVE number		
8. Subtract partial land use constraint (0.36) ^e	3,928,121	11,794,263

Non-Residential Development

9. Divide by Minimum Lot Area (10,000 sq ft) ^f	393	1179	13. Calculate new floor area – multiply number of parcels by minimum floor area (sq ft) ⁱ		14. Add existing and new PBC Floor Area (sq ft) ^j		15. Projected build-out (sq ft or number of units)	
10. Multiply by Development Mix (number of parcels) ^g			Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 1	Alternative 2
Civic and Cultural	59	177	219,858	660,127	233,468	678,712	233,468	678,712
Education Facility	39	118	146,572	440,084	158,043	451,555	158,043	451,555
Hotel or Motel (Units)	0	0	0	0	250	250	250	250
Industry, Warehouse, and Storage	0	0	0	0	0	0	0	0
Office	157	472	695,243	2,087,480	797,601	2,675,874	797,601	2,675,874
Retail and Commercial	137	413	513,001	1,540,296	677,816	1,733,136	677,816	1,733,136
Student Housing (Units)	0	0	0	0	0	0	0	0
Transportation Facility	0	0	0	0	0	0	0	0

Residential Development

11. Multiply developable land area (see Step #8) by maximum residential density ^h	2,164	6,498						
12. Multiply by Development Mix (number of residential units) ^g			Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 1	Alternative 2
Apartment – 1 Bedroom	649	1,949	n/a	n/a	649	1,949	649	1,949
Apartment – 2 Bedroom	541	1,625	n/a	n/a	621	1,705	621	1,705
Apartment – 3 Bedroom	541	1,625	n/a	n/a	541	1,625	541	1,625
Apartment – 4 Bedroom	0	0	n/a	n/a	0	0	0	0
Senior Housing – 1 Bedroom	433	1,300	n/a	n/a	433	1,300	433	1,300

Total Non-Residential Floor Space (Square Feet)	1,866,927	5,539,277
Total Hotel/Motel/Student Housing Units	250	250
Total Residential (# of Units)	2494	6828

Notes:

^a See 'Table A – Developable Land, Acres Available'

^b See 'Table A – Developable Land, Total Land Use Constraints'

^c See 'Table B – Reuse of Existing Building Calculations'

^d See 'Table C – Public Benefit Conveyance Calculations'

^e See 'Table D - Partial Land Use Constraint Calculations, Total'

^f See 'Table E - *Town of Brunswick Zoning Ordinance* and the BNAS Reuse District Dimensional and Density Table for the Subdistrict, as adopted July 20, 2009, Minimum Lot Area' for the appropriate land use district

^g See 'Table F - Development Mix'

^h See 'Table Table E - *Town of Brunswick Zoning Ordinance* and the BNAS Reuse District Dimensional and Density Table for the Subdistrict, as adopted July 20, 2009, Maximum Residential Density'

ⁱ See 'Table G - Minimum Floor Area Calculation, Approximate Floor Area' for the appropriate land use district and use

^j See 'Table B – Reuse of Existing Building Calculations' and 'Table C – Public Benefit Conveyance Calculations'

Build-out Worksheet (maximum build-out by land use district)

Business and Technology Industries District

	Alternative 1	Alternative 2						
1. Total land in District (acres) ^a	190.00	374.00						
2. Subtract undevelopable lands (acres) ^b	-3.70	-1.30						
3. Subtract footprint of existing buildings (acres) ^c	-8.27	-8.45						
4. Subtract total footprint of PBCs in district (acres) ^d	-0	-0						
5. Total - developable land (acres)	178.03	364.25						
6. Total - developable land (sq ft)	7,754,793	15,866,940						
7. Skip to step #12 if NEGATIVE number								
8. Subtract partial land use constraint (0.33) ^e	5,192,340	10,623,951						
9. Divide by Minimum Lot Area (10,000 sq ft) ^f	519	1062						
10. Multiply by Development Mix (number of parcels) ^g			Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 1	Alternative 2
Civic and Cultural	0	0	0	0	4975	0	4975	0
Education Facility	0	0	0	0	0	0	0	0
Hotel or Motel (Units)	0	0	0	0	0	0	0	0
Industry, Warehouse, and Storage	389	797	1,693,154	3,464,332	1,802,884	3,658,267	1,802,884	3,658,267
Office	104	212	472,031	965,814	506,038	975,814	506,038	975,814
Retail and Commercial	26	53	95,272	194,935	106,297	194,935	106,297	194,935
Student Housing (Units)	0	0	0	0	0	0	0	0
Transportation Facility	0	0	0	0	0	0	0	0
Total Non-Residential Floor Space (Square Feet)							2,420,195	4,829,016
Total Residential (# of Units)							0	0

Note:

^a See 'Table A – Developable Land, Acres Available'

^b See 'Table A – Developable Land, Total Land Use Constraints'

^c See 'Table B – Reuse of Existing Building Calculations'

^d See 'Table C – Public Benefit Conveyance Calculations'

^e See 'Table D - Partial Land Use Constraint Calculations, Total'

^f See 'Table E - *Town of Brunswick Zoning Ordinance* and the BNAS Reuse District Dimensional and Density Table for the Subdistrict, as adopted July 20, 2009, Minimum Lot Area' for the appropriate land use district

^g See 'Table F - Development Mix'

^h See 'Table G - Minimum Floor Area Calculation, Approximate Floor Area' for the appropriate land use district and use

ⁱ See 'Table B – Reuse of Existing Building Calculations' and 'Table C – Public Benefit Conveyance Calculations'

Build-out Worksheet (maximum build-out by land use district)

Education District

	Alternative 1	Alternative 2						
1. Total land in District (acres) ^a	200.00	314.00						
2. Subtract undevelopable lands (acres) ^b	-41.90	-21.90						
3. Subtract footprint of existing buildings (acres) ^c	-8.59	-8.59						
4. Subtract total footprint of PBCs in district (acres) ^d	-187.00	-187.00						
5. Total - developable land (acres)	-79.39	96.51						
6. Total - developable land (sq ft)	-3,458,140	4,204,064						
7. Skip to step #12 if NEGATIVE number								
8. Subtract partial land use constraint (0.43) ^e		2,393,083						
9. Divide by Minimum Lot Area (4,000 sq ft) ^f		598						
10. Multiply by Development Mix (number of parcels) ^g			Alternative 1	Alternative 2	Alternative 1	Alternative 2	Alternative 1	Alternative 2
Civic and Cultural		0	0	0	0	0	0	0
Education Facility		359	329,323	79,235	408,558	79,235	408,558	79,235
Hotel or Motel (Units)		0	0	0	0	0	0	0
Industry, Warehouse, and Storage		0	0	0	0	0	0	0
Office		120	211,777	25,000	236,777	25,000	236,777	25,000
Retail and Commercial		0	0	0	0	0	0	0
Student Housing (Units)		60	73	129	203	129	203	129
Transportation Facility		0	0	0	0	0	0	0
Total Non-Residential Floor Space (Square Feet)							104,235	645,336
Total Residential (# of Units)							129	203

Note:

^a See 'Table A – Developable Land, Acres Available'

^b See 'Table A – Developable Land, Total Land Use Constraints'

^c See 'Table B – Reuse of Existing Building Calculations'

^d See 'Table C – Public Benefit Conveyance Calculations'

^e See 'Table D - Partial Land Use Constraint Calculations, Total'

^f See 'Table E - *Town of Brunswick Zoning Ordinance* and the BNAS Reuse District Dimensional and Density Table for the Subdistrict, as adopted July 20, 2009, Minimum Lot Area' for the appropriate land use district

^g See 'Table F - Development Mix'

^h See 'Table G - Minimum Floor Area Calculation, Approximate Floor Area' for the appropriate land use district and use

ⁱ See 'Table B – Reuse of Existing Building Calculations' and 'Table C – Public Benefit Conveyance Calculations'

Build-out Worksheet (maximum build-out by land use district)

Residential District

	Alternative 1	Alternative 2				
1. Total land in District (acres) ^a	215.00	400.00				
2. Subtract undevelopable lands (acres) ^b	-3.70	-7.73				
3. Subtract footprint of existing buildings (acres) ^c	-212.10	-212.10				
4. Subtract total footprint of PBCs in district (acres) ^d	-0	-0				
5. Total - developable land (acres)	-0.80	180.17				
6. Total - developable land (sq ft)	-34,848	7,848,205				
7. Skip to step #13 if NEGATIVE number						
8. Subtract partial land use constraint (0.40) ^e	0	4,708,923				
9. Multiply by maximum residential density ^f	0	865	13. Add existing and new PBC Floor Area (sq ft) ^h		14. Projected build-out (sq ft or number of units)	
10. Multiply by Development Mix (number of parcels) ^g			Alternative 1	Alternative 2	Alternative 1	Alternative 2
Single Family – 2 Bedroom	0	0	123	123	123	123
Single Family – 3 Bedroom	0	519	157	676	157	676
Single Family – 4 Bedroom	0	173	66	239	66	239
Single Family – 5 Bedroom	0	0	3	3	3	3
Townhome/Condo – 2 Bedroom	0	86	40	126	40	126
Townhome/Condo – 3 Bedroom	0	86	155	241	155	241
Townhome/Condo – 4 Bedroom	0	0	29	29	29	29
Townhome/Condo – 5 Bedroom	0	0	0	0	0	0
Apartment – 1 Bedroom	0	0	0	0	0	0
Apartment – 2 Bedroom	0	0	0	0	0	0
Apartment – 3 Bedroom	0	0	0	0	0	0
Apartment – 4 Bedroom	0	0	0	0	0	0
Senior Housing – 1 Bedroom	0	0	0	0	0	0
Total Residential (# of Units)					573	1,438

Notes:

^a See 'Table A – Developable Land, Acres Available'

^b See 'Table A – Developable Land, Total Land Use Constraints'

^c See 'Table B – Reuse of Existing Building Calculations'

^d See 'Table C – Public Benefit Conveyance Calculations'

^e See 'Table D - Partial Land Use Constraint Calculations, Total'

^f See 'Table Table E - *Town of Brunswick Zoning Ordinance* and the BNAS Reuse District Dimensional and Density Table for the Subdistrict, as adopted July 20, 2009, Maximum Residential Density'

^g See 'Table F - Development Mix'

^h See 'Table B – Reuse of Existing Building Calculations' and 'Table C – Public Benefit Conveyance Calculations'

Build-out Analysis Planning Assumptions

Table A - Developable Land, NAS Brunswick, McKeen Street Housing Annex, and East Brunswick Radio Transmitter Site

Land use district	Alternative 1		Alternative 2	
	Acres available	Total land use constraints (acres)	Acres available	Total land use constraints (acres)
Airport Operations	500.00	0.00	0.00	0.00
Aviation-Related Business	230.00	0.00	0.00	0.00
Professional Office	120.00	1.09	0.00	0.00
Community Mixed Use	175.00	0.02	490.00	6.21
Business and Technology	190.00	3.70	374.00	1.30
Education	200.00	41.90	314.00	21.90
Residential	215.00	1.70	400.00	7.73
Recreational/Open Space/Natural	1,570.00	0.00	1,622.00	0.00
Total	3,200.00	50.41	3,200.00	37.14

**Build-out Analysis Planning Assumptions
Table B.1 – Reuse of Existing Building Calculations, Alternative 1**

Building #	# Units	# of Hotel Rooms	# of Student Units	Floor Area (sq ft)	# Stories	Building Footprint (sq ft/# Stories)	Land Use District	Property Use	Required Min. Parking (sq ft)	Add Min. Non-Impervious Surface to Bldg Footprint and Min Parking	Total Footprint (sq ft)	Total Footprint (acres)
Residential												
Bachelor Enlisted Quarters (Buildings 730-749)												
	80						Residential				396,396	9.10
McKeen Street Housing Annex												
	98						Residential				3,060,526	70.26
	43						Residential					
	90						Residential					
Mariners Landing (PPV Family Housing)												
	122						Residential				1,925,352	44.20
	2						Residential					
	2						Residential					
Woodland Village (PPV Family Housing)												
	65						Residential				1,179,169	27.07
	7						Residential					
Midway Terrace (PPV Family Housing)												
	40						Residential				1,280,664	29.40
	22						Residential					
Brunswick Gardens (PPV Family Housing)												
	40						Residential				858,132	19.70
	4						Residential					
Station Quarters (PPV Family Housing)												
	1						Residential				608,533	13.97
	11						Residential					
	3						Residential					
	1						Residential					
Woodland Village II (PPV Family Housing)												
	8						Residential				326,700	7.50
	14						Residential					
Non-Residential												
5				163,454	1.5	108,969	Aviation	Transportation Facility	137,301	280,596	280,596	6.44
6				166,335	1.5	110,890	Aviation	Transportation Facility	139,721	285,542	285,542	6.56

**Build-out Analysis Planning Assumptions
Table B.1 – Reuse of Existing Building Calculations, Alternative 1**

9	Administrative Space				8,723	1	8,723	Business and Technology Mixed-Use	Office	10,991	22,462	22,462	0.52
11	Navy Exchange				52,381	1	52,381	Business and Technology Mixed-Use	Retail and Commercial Industry, Warehouse, and Storage	14,655	70,699	70,699	1.62
19	Public Works Shops				6,000	1	6,000	Business and Technology Mixed-Use	Office	5,040	12,300	12,300	0.28
20	Community Facilities				25,871	2	12,936	Community Mixed-Use	Education Facility (Nursery)	32,597	45,533	45,533	1.05
21	Child Care Center				4,975	1	4,975	Community Mixed-Use	Education Facility (Nursery)		4,975	4,975	0.11
24	Personnel Support Building				10,000	1	10,000	Community Mixed-Use	Office	12,600	22,600	22,600	0.52
25	Indoor Fitness Center				16,658	2	8,329	Community Mixed-Use	Retail and Commercial	27,985	36,314	36,314	0.83
26	Child Care Center				6,496	1	6,496	Community Mixed-Use	Education Facility (Nursery)	10,913	17,409	17,409	0.40
27	Family Services Center				7,862	1	7,862	Community Mixed-Use	Office	9,906	17,768	17,768	0.41
29	Auto Hobby Shop				12,000	1	12,000	Business and Technology Mixed-Use	Industry, Warehouse, and Storage	10,080	24,600	24,600	0.56
31	Navy Lodge				15,054	2	7,527	Community Mixed-Use	Office	18,968	26,495	26,495	0.61
51	Hazardous Waste Facility				5,000	1	5,000	Business and Technology Mixed-Use	Industry, Warehouse, and Storage	4,200	10,250	10,250	0.24
53	Public Works Shop				10,000	1	10,000	Business and Technology Mixed-Use	Office	12,600	25,750	25,750	0.59
54	Applied Instruction Building				30,000	1	30,000	Community Mixed-Use	Office	37,800	67,800	67,800	1.56
55	Police/Security Station				11,000	1	11,000	Business and Technology Mixed-Use	Office	13,860	28,325	28,325	0.65
78	Golf Clubhouse				3,040	1	3,040	Open Space/Recreation	Retail and Commercial	5,107	13,254	13,254	0.30
81	Chrimp Facility				7,000	1	7,000	Business and Technology Mixed-Use	Industry, Warehouse, and Storage	5,880	14,350	14,350	0.33
86	Ground Support Equipment Shop				31,980	2	15,990	Aviation	Industry, Warehouse, and Storage	26,863	49,569	49,569	1.14
102	Indoor Small Arms Range				4,975	1	4,975	Business and Technology Mixed-Use	Civic and Cultural	8,358	15,423	15,423	0.35
150	Naval Air Reserve Center				13,196	1	13,196	Education	Education Facility (Classroom)	22,169	57,535	57,535	1.32
151	Naval Surface Reserve Center				24,480	2	12,240	Education	Education Facility (Classroom)	41,126	94,493	94,493	2.17
201	Galley/Neptune Hall				9,425	1	9,425	Business and Technology Mixed-Use	Retail and Commercial	15,834	29,218	29,218	0.67

**Build-out Analysis Planning Assumptions
Table B.1 – Reuse of Existing Building Calculations, Alternative 1**

211	Physical Fitness Center				50,984	1	50,984	Community Mixed-Use	Retail and Commercial	85,653	136,637	136,637	3.14
221	Thrift Shop				1,600	1	1,600	Business and Technology	Retail and Commercial	2,688	4,960	4,960	0.11
223	NMCI Building				4,284	1	4,284	Business and Technology	Office	5,398	11,031	11,031	0.25
225	Auto Equipment Repair Shop				15,020	1	15,020	Community Mixed-Use	Retail and Commercial	25,234	40,254	40,254	0.92
250	Maintenance Hangar				184,400	2	92,200	Aviation	Transportation Facility	154,896	285,820	285,820	6.56
252	Auto Equipment Repair Shop				5,100	1	5,100	Community Mixed-Use	Retail and Commercial	8,568	13,668	13,668	0.31
292	Fire/Rescue Facility				10,665	2	5,333	Aviation	Industry, Warehouse, and Storage	8,959	16,531	16,531	0.38
294	Warehouse				64,530	1	64,530	Business and Technology	Industry, Warehouse, and Storage	54,205	132,287	132,287	3.04
512	Bachelor Officer Quarters			76	61,882	3	20,627	Education	Student Housing (Residence Hall)	31,920	84,467	84,467	1.94
538	NEX Service Station				5,292	1	5,292	Community Mixed-Use	Retail and Commercial	8,891	14,183	14,183	0.33
555	Sonobouy/Vehicle Storage				6,400	1	6,400	Aviation	Industry, Warehouse, and Storage	5,376	13,120	13,120	0.30
583	Bowling Center/Rec Mall				19,380	1	19,380	Community Mixed-Use	Retail and Commercial	32,558	51,938	51,938	1.19
584	PW Shops				7,200	1	7,200	Business and Technology	Industry, Warehouse, and Storage	6,048	14,760	14,760	0.34
585	Chapel				13,610	1	13,610	Community Mixed-Use	Civic and Cultural	12,096	25,706	25,706	0.59
590	Transportation Maintenance Shops				8,000	1	8,000	Business and Technology	Industry, Warehouse, and Storage	6,720	14,720	14,720	0.34
644	Operational Trainer Building				13,571	1	13,571	Community Mixed-Use	Office	17,099	30,670	30,670	0.70
645	Medical/Dental Clinic				31,559	1	31,559	Education	Education Facility (Classroom)	53,019	137,597	137,597	3.16
750	Transient Visitor Quarters		250		136,770	2	68,385	Community Mixed-Use	Hotel or Motel	105,000	173,385	173,385	3.98
751	School Age Child Care Center				2,500	1	2,500	Residential	Education Facility (Nursery)	4,200	10,900	10,900	0.25
TOTAL				76	1,288,652	54	914,529					12,121,366	278.27

Build-out Analysis Planning Assumptions

Table B.2 – Summary of Existing Buildings by Land Use District, Alternative 1

	# of Residential Units	# of Hotel Rooms	# of Student Units	Floor Area (sq ft)	Total Footprint (sq ft)	Total Footprint (Acres)
Aviation-Related Business						
Civic and Cultural						0.00
Education Facility						0.00
Hotel or Motel						0.00
Industry, Warehouse, and Storage				49,045	79,220	1.82
Office						0.00
Retail and Commercial						0.00
Student Housing						0.00
Transportation Facility				514,189	851,958	19.56
Total	0	0	0	563,234	931,178	21.38
Professional Office						
Civic and Cultural						0
Education Facility						0
Hotel or Motel						0
Industry, Warehouse, and Storage						0
Office						0
Retail and Commercial						0
Student Housing						0
Transportation Facility						0
Total	0	0	0	0	0	0
Community Mixed Use						
Civic and Cultural				13,610	25,706	0.59
Education Facility				11,471	22,384	0.51
Hotel or Motel		250			173,385	3.98
Industry, Warehouse, and Storage						0.00
Office				102,358	210,867	4.84
Residential					396,396	9.10
Apartment - 1 Bedroom	0					0.00
Apartment - 2 Bedroom	80					0.00
Apartment - 3 Bedroom	0					0.00
Apartment - 4 Bedroom	0					0.00
Senior Housing - 1 Bedroom						0.00
Retail and Commercial				164,815	363,693	8.35
Student Housing						0.00
Transportation Facility						0.00
Total	80	250	0	292,254	1,192,431	27.37
Business and Technology Industries						
Civic and Cultural				4,975	15,423	0.35
Education Facility						0.00
Hotel or Motel						0.00
Industry, Warehouse, and Storage				109,730	223,267	5.13
Office				34,007	87,568	2.01
Retail and Commercial				11,025	34,178	0.78
Student Housing						0.00
Transportation Facility						0.00
Total	0	0	0	159,737	360,435	8.27
Education						
Civic and Cultural						0.00
Education Facility				69,235	289,625	6.65
Hotel or Motel						0.00
Industry, Warehouse, and Storage						0.00

Build-out Analysis Planning Assumptions

Table B.2 – Summary of Existing Buildings by Land Use District, Alternative 1

Office						0.00
Retail and Commercial						0.00
Student Housing			76		84,467	1.94
Transportation Facility						0.00
Total	0	0	76	69,235	374,092	8.59
Residential						
Single Family - 2 Bedroom	123					0
Single Family - 3 Bedroom	157					0
Single Family - 4 Bedroom	66					0
Single Family - 5 Bedroom	3					0
Townhome/Condo - 2 Bedroom	40					0
Townhome/Condo - 3 Bedroom	155					0
Townhome/Condo - 4 Bedroom	29					0
Townhome/Condo - 5 Bedroom	0					0
Apartment - 1 Bedroom	0					0
Apartment - 2 Bedroom	0					0
Apartment - 3 Bedroom	0					0
Apartment - 4 Bedroom	0					0
Senior Housing - 1 Bedroom	0					0
Total	573	0	0	0	9,239,076	212.10
Other						
<i>Golf Clubhouse</i>				3,040	13,254	0.30
<i>School Age Child Care Center</i>				2,500	10,900	0.25
Total	0	0	0	5,540	24,154	0.55
Total, All Existing, Alternative 1						
Civic and Cultural				18,585	41,129	0.94
Education Facility				83,206	322,909	7.41
Hotel or Motel		250		0	173,385	3.98
Industry, Warehouse, and Storage				158,775	302,486	6.94
Office				136,365	298,435	6.85
Residential					9,239,076	212.10
Single Family - 2 Bedroom	123					
Single Family - 3 Bedroom	157					
Single Family - 4 Bedroom	66					
Single Family - 5 Bedroom	3					
Townhome/Condo - 2 Bedroom	40					
Townhome/Condo - 3 Bedroom	155					
Townhome/Condo - 4 Bedroom	29					
Townhome/Condo - 5 Bedroom	0					
Apartment - 1 Bedroom	0					
Apartment - 2 Bedroom	80					
Apartment - 3 Bedroom	0					
Apartment - 4 Bedroom	0					
Senior Housing - 1 Bedroom	0					
Retail and Commercial				178,880	411,125	9.44
Student Housing			76	0	84,467	1.94
Transportation Facility				514,189	851,958	19.56
Total	653	250	76	1,090,000	12,121,366	278.27

**Build-out Analysis Planning Assumptions
Table B.3 – Reuse of Existing Building Calculations, Alternative 2**

Building #	# Units	# of Hotel Rooms	# of Student Units	Floor Area (sq ft)	# Stories	Building Footprint (sq ft/# Stories)	Land Use District	Property Use	Required Min. Parking (sq ft)	Add Min. Non-Impervious Surface to Bldg Footprint and Min Parking	Total Footprint (sq ft)	Total Footprint (acres)
Residential												
Bachelor Enlisted Quarters (Buildings 730-749)												
Apartment - 2 Bedroom	80						Residential				396,396	9.10
McKeen Street Housing Annex												
Single Family - 3 Bedroom	98						Residential				3,060,526	70.26
Single Family - 4 Bedroom	43						Residential					
Townhome/Condo - 3 Bedroom	90						Residential					
Mariners Landing (PPV Family Housing)												
Single Family - 2 Bedroom	122						Residential				1,925,352	44.20
Single Family - 4 Bedroom	2						Residential					
Single Family - 5 Bedroom	2						Residential					
Woodland Village (PPV Family Housing)												
Townhome/Condo - 3 Bedroom	65						Residential				1,179,169	27.07
Townhome/Condo - 4 Bedroom	7						Residential					
Midway Terrace (PPV Family Housing)												
Townhome/Condo - 2 Bedroom	40						Residential				1,280,664	29.40
Townhome/Condo - 4 Bedroom	22						Residential					
Brunswick Gardens (PPV Family Housing)												
Single Family - 3 Bedroom	40						Residential				858,132	19.70
Single Family - 4 Bedroom	4						Residential					
Station Quarters (PPV Family Housing)												
Single Family - 2 Bedroom	1						Residential				608,533	13.97
Single Family - 3 Bedroom	11						Residential					
Single Family - 4 Bedroom	3						Residential					
Single Family - 5 Bedroom	1						Residential					
Woodland Village II (PPV Family Housing)												
Single Family - 3 Bedroom	8						Residential				326,700	7.50
Single Family - 4 Bedroom	14						Residential					
Non-Residential												
5 Maintenance Hangar				163,454	1.5	108,969	Community Mixed-Use	Office	205,952	314,921	314,921	7.23

**Build-out Analysis Planning Assumptions
Table B.3 – Reuse of Existing Building Calculations, Alternative 2**

6	Maintenance Hangar				166,335	1.5	110,890	Business and Technology	Industry, Warehouse, and Storage	139,721	285,542	285,542	6.56
9	Administrative Space				8,723	1	8,723	Community Mixed-Use	Office	10,991	19,714	19,714	0.45
11	Navy Exchange				52,381	1	52,381	Community Mixed-Use	Retail and Commercial	88,000	140,381	140,381	3.22
19	Public Works Shops				6,000	1	6,000	Business and Technology	Industry, Warehouse, and Storage	5,040	12,300	12,300	0.28
20	Community Facilities				25,871	2	12,936	Community Mixed-Use	Office	32,597	45,533	45,533	1.05
21	Child Care Center				4,975	1	4,975	Community Mixed-Use	Education Facility (Nursery)	8,358	13,333	13,333	0.31
24	Personnel Support Building	Det.			10,000	1	10,000	Community Mixed-Use	Office	12,600	22,600	22,600	0.52
25	Indoor Fitness Center				16,658	2	8,329	Community Mixed-Use	Retail and Commercial	27,985	36,314	36,314	0.83
26	Child Care Center				6,496	1	6,496	Community Mixed-Use	Education Facility (Nursery)	10,913	17,409	17,409	0.40
27	Family Services Center				7,862	1	7,862	Community Mixed-Use	Office	9,906	17,768	17,768	0.41
29	Auto Hobby Shop				12,000	1	12,000	Community Mixed-Use	Retail and Commercial	20,160	32,160	32,160	0.74
31	Navy Lodge				15,054	2	7,527	Community Mixed-Use	Office	18,968	26,495	26,495	0.61
51	Hazardous Waste Facility				5,000	1	5,000	Community Mixed-Use	Retail and Commercial	8,400	13,400	13,400	0.31
53	Public Works Shop				10,000	1	10,000	Business and Technology	Office	12,600	25,750	25,750	0.59
54	Applied Instruction Building				30,000	1	30,000	Community Mixed-Use	Office	37,800	67,800	67,800	1.56
55	Police/Security Station				11,000	1	11,000	Community Mixed-Use	Office	13,860	24,860	24,860	0.57
78	Golf Clubhouse				3,040	1	3,040	Open Space/Recreation	Retail and Commercial	5,107	13,254	13,254	0.30
81	Chrimp Facility				7,000	1	7,000	Community Mixed-Use	Office	8,820	15,820	15,820	0.36
86	Ground Support Equipment Shop				31,980	2	15,990	Community Mixed-Use	Office	40,295	56,285	56,285	1.29
102	Indoor Small Arms Range				4,975	1	4,975	Community Mixed-Use	Civic and Cultural	8,358	13,333	13,333	0.31
150	Naval Air Reserve Center				13,196	1	13,196	Education	Education Facility (Classroom)	22,169	57,535	57,535	1.32
151	Naval Surface Reserve Center				24,480	2	12,240	Education	Education Facility (Classroom)	41,126	94,493	94,493	2.17
201	Galley/Neptune Hall				9,425	1	9,425	Community	Retail and	15,834	25,259	25,259	0.58

**Build-out Analysis Planning Assumptions
Table B.3 – Reuse of Existing Building Calculations, Alternative 2**

211	Physical Fitness Center					50,984	1	50,984	Community Mixed-Use	Retail and Commercial	85,653	136,637	136,637	3.14
221	Thrift Shop					1,600	1	1,600	Community Mixed-Use	Retail and Commercial	2,688	4,288	4,288	0.10
223	NMCI Building					4,284	1	4,284	Community Mixed-Use	Office	5,398	9,682	9,682	0.22
225	Auto Equipment Repair Shop					15,020	1	15,020	Community Mixed-Use	Retail and Commercial	25,234	40,254	40,254	0.92
250	Maintenance Hangar					184,400	2	92,200	Community Mixed-Use	Office	232,344	324,544	324,544	7.45
252	Auto Equipment Repair Shop					5,100	1	5,100	Community Mixed-Use	Retail and Commercial	8,568	13,668	13,668	0.31
292	Fire/Rescue Facility					10,665	2	5,333	Community Mixed-Use	Office	13,438	18,770	18,770	0.43
294	Warehouse					64,530	1	64,530	Community Mixed-Use	Office	81,308	145,838	145,838	3.35
512	Bachelor Officer Quarters			76		61,882	3	20,627	Education	Student Housing (Residence Hall)	31,920	84,467	84,467	1.94
538	NEX Service Station					5,292	1	5,292	Community Mixed-Use	Retail and Commercial	8,891	14,183	14,183	0.33
555	Sonobouy/Vehicle Storage					6,400	1	6,400	Business and Technology	Industry, Warehouse, and Storage	5,376	13,120	13,120	0.30
583	Bowling Center/Rec Mall					19,380	1	19,380	Community Mixed-Use	Retail and Commercial	24,419	43,799	43,799	1.01
584	PW Shops					7,200	1	7,200	Business and Technology	Industry, Warehouse, and Storage	6,048	14,760	14,760	0.34
585	Chapel					13,610	1	13,610	Community Mixed-Use	Civic and Cultural	22,865	36,475	36,475	0.84
590	Transportation Maintenance Shops					8,000	1	8,000	Business and Technology	Industry, Warehouse, and Storage	6,720	16,400	16,400	0.38
644	Operational Trainer Building					13,571	1	13,571	Community Mixed-Use	Office	17,099	30,670	30,670	0.70
645	Medical/Dental Clinic					31,559	1	31,559	Education	Education Facility (Classroom)	53,019	137,597	137,597	3.16
750	Transient Visitor Quarters	250				136,770	2	68,385	Community Mixed-Use	Hotel or Motel	105,000	173,385	173,385	3.98
751	School Age Child Care Center					2,500	1	2,500	Residential	Education Facility (Nursery)	4,200	10,900	10,900	0.25
TOTAL		653	250	76	54	1,288,652	54	914,529				12,297,169	282.30	

Build-out Analysis Planning Assumptions

Table B.4 – Summary of Existing Buildings by Land Use District, Alternative 2

	# of Residential Units	# of Hotel Rooms	# of Student Units	Floor Area (sq ft)	Total Footprint (sq ft)	Total Footprint (Acres)
Aviation-Related Business						
Civic and Cultural						0
Education Facility						0
Hotel or Motel						0
Industry, Warehouse, and Storage						0
Office						0
Retail and Commercial						0
Student Housing						0
Transportation Facility						0
Total	0	0	0	0	0	0
Professional Office						
Civic and Cultural						0
Education Facility						0
Hotel or Motel						0
Industry, Warehouse, and Storage						0
Office						0
Retail and Commercial						0
Student Housing						0
Transportation Facility						0
Total	0	0	0	0	0	0
Community Mixed Use						
Civic and Cultural				18,585	49,808	1.14
Education Facility				11,471	30,742	0.71
Hotel or Motel		250			173,385	3.98
Industry, Warehouse, and Storage						0.00
Office				588,394	1,141,301	26.20
Residential					396,396	9.10
Apartment - 1 Bedroom	0					0.00
Apartment - 2 Bedroom	80					0.00
Apartment - 3 Bedroom	0					0.00
Apartment - 4 Bedroom	0					0.00
Senior Housing - 1 Bedroom						0.00
Retail and Commercial				192,840	500,343	11.49
Student Housing						0.00
Transportation Facility						0.00
Total	80	250	0	811,290	2,291,974	52.62
Business and Technology Industries						
Civic and Cultural						0.00
Education Facility						0.00
Hotel or Motel						0.00
Industry, Warehouse, and Storage				193,935	342,122	7.85
Office				10,000	25,750	0.59
Retail and Commercial						0.00
Student Housing						0.00
Transportation Facility						0.00
Total	0	0	0	203,935	367,872	8.45
Education						
Civic and Cultural						0.00
Education Facility				69,235	289,625	6.65
Hotel or Motel						0.00
Industry, Warehouse, and Storage						0.00

Build-out Analysis Planning Assumptions

Table B.4 – Summary of Existing Buildings by Land Use District, Alternative 2

Office						0.00
Retail and Commercial						0.00
Student Housing			76		84,467	1.94
Transportation Facility						0.00
Total	0	0	76	69,235	374,092	8.59
Residential						
Single Family - 2 Bedroom	123					
Single Family - 3 Bedroom	157					
Single Family - 4 Bedroom	66					
Single Family - 5 Bedroom	3					
Townhome/Condo - 2 Bedroom	40					
Townhome/Condo - 3 Bedroom	155					
Townhome/Condo - 4 Bedroom	29					
Townhome/Condo - 5 Bedroom	0					
Apartment - 1 Bedroom	0					
Apartment - 2 Bedroom	0					
Apartment - 3 Bedroom	0					
Apartment - 4 Bedroom	0					
Senior Housing - 1 Bedroom	0					
Total	573	0	0	0	9,239,076	212.10
Other						
<i>Golf Clubhouse</i>				3,040	13,254	0.30
<i>School Age Child Care Center</i>				2,500	10,900	0.25
Total	0	0	0	5,540	24,154	0.55
Total, All Existing, Alternative 1						
Civic and Cultural				18,585	49,808	1.14
Education Facility				83,206	331,267	7.60
Hotel or Motel		250		0	173,385	3.98
Industry, Warehouse, and Storage				193,935	342,122	7.85
Office				598,394	1,167,051	26.79
Residential					9,635,472	221.20
Single Family - 2 Bedroom	123					
Single Family - 3 Bedroom	157					
Single Family - 4 Bedroom	66					
Single Family - 5 Bedroom	3					
Townhome/Condo - 2 Bedroom	40					
Townhome/Condo - 3 Bedroom	155					
Townhome/Condo - 4 Bedroom	29					
Townhome/Condo - 5 Bedroom	0					
Apartment - 1 Bedroom	0					
Apartment - 2 Bedroom	80					
Apartment - 3 Bedroom	0					
Apartment - 4 Bedroom	0					
Senior Housing - 1 Bedroom	0					
Retail and Commercial				195,880	513,597	11.79
Student Housing			76	0	84,467	1.94
Transportation Facility				0	0	0.00
Total	653	250	76	1,090,000	12,297,169	282.30

**Build-out Analysis Planning Assumptions
Table C – Public Benefit Conveyance Calculations**

	PBC Benefactor 1					PBC Benefactor 2				
	Bowdoin College					Southern Maine Community College				
	Total # of acres	Floor Area (sq ft)	# of Residential Units	# of Hotel Rooms	# of Student Housing	Total # of acres	Floor Area (sq ft)	# of Residential Units	# of Hotel Rooms	# of Student Housing
Land Use District Conveyance (acres)										
Aviation-Related Business										
Professional Office										
Community Mixed Use										
Business and Technology Industries										
Education	176					11				
Residential										
Proposed Development										
Civic and Cultural		0								
Education Facility		10,000								
Hotel or Motel		0								
Office		25,000								
Retail and Commercial		0								
Student Housing		40,000			53					

	PBC Benefactor 3				
	Maine State Museum				
	Total # of acres	Floor Area (sq ft)	# of Residential Units	# of Hotel Rooms	# of Student Housing
Land Use District Conveyance (acres)					
Aviation-Related Business					
Professional Office					
Community Mixed Use	6				
Business and Technology Industries					
Education					
Residential					

Note: Info on other PBC development is either unknown at this time or included in the existing building calculations (see Table B.1-B.4).

Build-out Analysis Planning Assumptions
Table D - Partial Land Use Constraint Calculation

Aviation-Related Business District	
a. (1/2 Minimum Local Roadway Width + Minimum Sidewalk Requirement) x Minimum Lot Width = X	1,500
b. Minimum Lot Size + X = Y	21,500
c. X / Y = % Right of Way Constraint	0.07
d. % Right of Way Constraint + 20% (other constraint factor) = Total Partial Residential Land Use Constraint	0.27
Professional Office District	
a. (1/2 Minimum Local Roadway Width + Minimum Sidewalk Requirement) x Minimum Lot Width = X	1,500
b. Minimum Lot Size + X = Y	11,500
c. X / Y = % Right of Way Constraint	0.13
d. % Right of Way Constraint + 20% (other constraint factor) = Total Partial Residential Land Use Constraint	0.33
Community Mixed Use District	
a. (1/2 Minimum Local Roadway Width + Minimum Sidewalk Requirement) x Minimum Lot Width = X	1,950
b. Minimum Lot Size + X = Y	11,950
c. X / Y = % Right of Way Constraint	0.16
d. % Right of Way Constraint + 20% (other constraint factor) = Total Partial Residential Land Use Constraint	0.36
Business and Technology District	
a. (1/2 Minimum Local Roadway Width + Minimum Sidewalk Requirement) x Minimum Lot Width = X	1,500
b. Minimum Lot Size + X = Y	11,500
c. X / Y = % Right of Way Constraint	0.13
d. % Right of Way Constraint + 20% (other constraint factor) = Total Partial Residential Land Use Constraint	0.33
Education District	
a. (1/2 Minimum Local Roadway Width + Minimum Sidewalk Requirement) x Minimum Lot Width = X	1,200
b. Minimum Lot Size + X = Y	5,200
c. X / Y = % Right of Way Constraint	0.23
d. % Right of Way Constraint + 20% (other constraint factor) = Total Partial Residential Land Use Constraint	0.43
Residential District	
a. (1/2 Minimum Local Roadway Width + Minimum Sidewalk Requirement) x Minimum Lot Width = X	1,000
b. Minimum Lot Size + X = Y	5,000
c. X / Y = % Right of Way Constraint	0.20
d. % Right of Way Constraint + 20% (other constraint factor) = Total Partial Residential Land Use Constraint	0.40

Build-out Analysis Planning Assumptions
Table D - Partial Land Use Constraint Calculation

Town of Brunswick Street and Sidewalk Standards

Minimum Sidewalk Width (feet)	5
Minimum Local Roadway Width (feet)	50

Town of Brunswick Parking Standards

Development/Land Use Type	# parking	area (sq ft)	room
Retail or Service	4	1,000	
Industry and Warehouse	2	1,000	
Office	3	1,000	
Lodging	1		1

Footprint of Parking Space Assumption

1 Parking Space (sq ft)	420
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Build-out Analysis Planning Assumptions

Table E – Town of Brunswick Zoning Ordinance, BNAS Reuse District Dimensional and Density Table for the Subdistrict, as adopted July 20, 2009

	Aviation-Related Business	Professional Office	Community Mixed Use	Business and Technology	Education^a	Residential
Minimum Lot Area (sq ft) ^b	20,000	10,000	10,000	10,000	4,000	4,000
Maximum Residential Density (du per acre)	n/a	n/a	24	n/a	24	8
Minimum Lot Width (feet) ^c	50	50	65	50	40	40
Maximum Impervious Surface Coverage (%)	0.80	0.80	1.00	0.80	0.50	0.50
Minimum Building Height (stories) ^c	n/a	2	2	n/a	2	2
<p>Notes:</p> <p>^a The Reuse Master Plan’s Education Land Use District is not defined as an individual land use category within the Town of Brunswick Zoning Ordinance. Therefore, dimensional and density standards have been assumed in the Build-out Analysis.</p> <p>^b Minimum Lot Area for the Aviation-Related Business, Community Mixed Use, and Education Districts are not identified in the Town of Brunswick Zoning Ordinance and have been assumed in the Build-out Analysis.</p> <p>^c Minimum Lot Width for the Community Mixed Use and Education Districts are not identified in the Town of Brunswick Zoning Ordinance and have been assumed in the Build-out Analysis.</p>						

Build-out Analysis Planning Assumptions
Table F – Development Mix

Aviation-Related Business District	%Mix
Industry, Warehouse, and Storage	0.40
Office	0.10
Transportation Facility	0.50
total	1.00
Professional Office District	%Mix
Civic and Cultural	0.10
Hotel or Motel	0.00
Office	0.80
Retail and Commercial	0.10
total	1.00
Community Mixed Use District	%Mix
Civic and Cultural	0.15
Education Facility	0.10
Hotel or Motel	0.00
Office	0.40
Retail and Commercial	0.35
total	1.00
Residential District	%Mix
Apartment (1 Bedroom)	0.30
Apartment (2 Bedroom)	0.25
Apartment (3 Bedroom)	0.25
Apartment (4 Bedroom)	0.00
Senior Housing - 1 Bedroom	0.20
total	1.00
Business and Technology District	%Mix
Civic and Cultural	0.00
Industry, Warehouse, and Storage	0.75
Office	0.20
Retail and Commercial	0.05
total	1.00
Education District	%Mix
Education Facility	0.60
Office	0.30
Student Housing	0.10
total	1.00
Residential District	%Mix
Single Family - 2 Bedroom	0.00
Single Family - 3 Bedroom	0.60
Single Family - 4 Bedroom	0.20
Single Family - 5 Bedroom	0.00
Townhome/Condo - 2 Bedroom	0.10
Townhome/Condo - 3 Bedroom	0.10
Townhome/Condo - 4 Bedroom	0.00

Build-out Analysis Planning Assumptions
Table F – Development Mix

Townhome/Condo - 5 Bedroom	0.00
Apartment - 1 Bedroom	0.00
Apartment - 2 Bedroom	0.00
Apartment - 3 Bedroom	0.00
Apartment - 4 Bedroom	0.00
Senior Housing - 1 Bedroom	0.00
total	1.00
Note: The Development Mix was provided by the Midcoast Regional Redevelopment Authority for Alternative 1 on August 26, 2008. The development mix for Alternative 2 assumes to utilize the same development mix.	

**Build-out Analysis Planning Assumptions
Table G – Minimum Floor Area Calculation**

		Civic and Cultural	Education Facility	Industry, Warehouse, and Storage	Office	Retail and Commercial	Transportation Facility	Student Housing	
Aviation-Related Business District	a. Calculate Maximum Impervious Area	n/a	n/a	16,000	16,000	n/a	16,000	n/a	
	b. Calculate Footprint Ratio			500	167		500		
	c. Approximate Floor Area Ratio			17.4	27.3		17.4		
	d. Building Foot Print			8,696	4,545		8,696		
	e. Approximate Floor Area			8,696	4,545		8,696		
Professional Office District	a. Calculate Maximum Impervious Area	8,000	n/a	n/a	8,000	8,000	n/a	n/a	
	b. Calculate Footprint Ratio	250			167	125			
	c. Approximate Floor Area Ratio	11.9			13.6	14.7			
	d. Building Foot Print	2,985			2,273	1,835			
	e. Approximate Floor Area	2,985			4,545	3,670			
Community Mixed Use District	a. Calculate Maximum Impervious Area	10,000	10,000	n/a	10,000	10,000	n/a	n/a	
	b. Calculate Footprint Ratio	250	250		333	250			
	c. Approximate Floor Area Ratio	14.9	14.9		13.3	14.9			
	d. Building Foot Print	3,731	3,731		4,425	3,731			
	e. Approximate Floor Area	3,731	3,731		4,425	3,731			
Business and Technology District	a. Calculate Maximum Impervious Area	8,000	n/a	n/a	8,000	8,000	n/a	n/a	
	b. Calculate Footprint Ratio	250			500	167			125
	c. Approximate Floor Area Ratio	11.9			8.7	13.6			14.7
	d. Building Foot Print	2,985			4,348	2,273			1,835
	e. Approximate Floor Area	2,985			4,348	4,545			3,670
Education District	a. Calculate Maximum Impervious Area	n/a	2,000	n/a	2,000	n/a	n/a	2,000	
	b. Calculate Footprint Ratio		125		333			125	
	c. Approximate Floor Area Ratio		3.7		2.7			3.7	
	d. Building Foot Print		459		885			459	
	e. Approximate Floor Area		917		1,770			917	