

2016 Market & Feasibility Study

Part 1: Potential user characteristics

Summary- Characteristics of Potential Floyd County Commerce Center Users

The Floyd County Regional Commerce Center property has land available for development, capable of siting several small (5,000 – 15,000 ft²) or mid-size (40,000 – 60,000 ft²) facilities. The park has ready access to sufficient electric, broadband, water and transportation to accommodate most types of industrial or commercial users, but would not be appropriate for heavy industry, due to noise and pollution issues for neighboring properties, or for operations that require significant water usage given limitations of the capacity of the existing water system.

Several sectors may be appropriate tenants of the industrial park, based on the proximity of both inputs for their sectors, and customers for their products. These sectors should be appropriate for mid-size industrial facilities as described above, and would not require a mega-site or large amounts of truck traffic/parking. The following summary describes the sectors that may be appropriate users for the Commerce Center, with accompanying tables providing economic data on current activity in the sector in Floyd, the New River Valley, and within a 90 minute drive-time from Floyd.

The top target sectors for firms who may be tenants of the park include a diverse array of businesses: wood products manufacturing; food processing or wholesale ag products; agriculture equipment wholesale/retail; machine shop and custom metalwork; commercial printing; local manufacturing cluster and supplier firms in lighting, automotive, and industrial equipment manufacturing; firms in the developing regional IT, software and high-tech sectors, and; firms that meet a need in Floyd, such as assisted living or medical facilities.

The majority of firms in these sectors have facilities of 40,000 square feet or smaller, which should be an appropriate size for the Commerce Center parcels. Most of these sectors will require sufficient space to accommodate tractor trailers, and some sectors need sufficient parking for employees and visitors (potentially 50+ spaces in some cases).

Strengths in Floyd and the region

Wood products are a traditional strength of southwest Virginia, with ample supplies of timber tracts, numerous sawmills, and a variety of wood products manufacturing firms. The region has many workers and craftspeople skilled in woodworking techniques. New opportunities may exist to develop manufacturing or wholesale/distribution operations in restored wood products and construction materials, wood pellets, or custom wood product manufacturing.

- **Wood pellet manufacturing** involves aggregating wood waste from logging, sawmills or other wood manufacturing operations and binding/compressing into pellets that serve as fuel for wood stoves.
- **Wood restoration/wholesale** offers an opportunity to rehabilitate or recycle wood from existing buildings for resale to construction or other wood products manufacturers.
- **Wood preservation** treats wood for various construction and other uses.
- **Custom wood products manufacturing** such as made-to-order furniture, household items, flooring or related construction materials using new or recycled wood.
- **Wood panel/millwork wholesale operations** may be associated with the above industries, but likely will prefer a location nearer to major highways/interstates.

Most local firms in this sector have facilities that would be an appropriate size for the Floyd Commerce Center, with two firms with facilities ranging from 1,500 to 10,000 ft², two firms with facilities ranging from 10,000 – 20,000 ft², two firms with facilities ranging from 20,000 – 40,000 ft², and two firms with facilities ranging from 40,000 – 100,000 ft². While the Commerce Center can accommodate facilities of this size, wood products firms may need additional outdoor area for storage of wood/lumber, and sufficient space for the loading and unloading of timber trucks or tractor trailers. Wood products firms are likely to require significant electricity, and varying amounts of water depending on the process or product (for instance, steam or chemical treatments for finished wood products).

WOOD PRODUCTS SECTOR INDUSTRY TRENDS	FLOYD			NEW RIVER VALLEY			90 minute drive time			Average employees per firm
	2015 Jobs	2009 - 2015 % Change	2015 Establishments	2015 Jobs	2009 - 2015 % Change	2015 Establishments	2015 Jobs	2009 - 2015 % Change	2015 Establishments	
SUPPLIER FIRMS										
Logging	26	(19%)	3	40	(9%)	4	468	(4%)	52	9
Support Activities for Forestry	<10	0	1	16	0	5	110	38%	12	9
CUSTOMER FIRMS										
New Single-Family Housing Construction (except For-Sale Builders)	101	1%	13	322	(34%)	60	1,425	(32%)	318	4
Finish Carpentry Contractors	17	70%	0	57	(15%)	4	463	(31%)	46	10
Roofing Contractors	<10	0	2	43	13%	8	455	3%	46	10
Flooring Contractors	<10	0	0	36	(50%)	2	308	(29%)	41	7
Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	<10	0	0	<10	0	0	214	(2%)	22	10
Furniture Merchant Wholesalers	0	0%	0	19	(10%)	1	132	52%	13	10
Home Furnishing Merchant Wholesalers	0	0%	0	0	0	0	128	(43%)	10	13
Furniture Stores	<10	0	0	55	(13%)	8	606	(8%)	61	10
Other Building Material Dealers	0	0	0	80	(19%)	8	589	16%	61	10
Floor Covering Stores	<10	0	0	18	(53%)	8	176	(34%)	35	5
POTENTIAL COMMERCE CENTER USERS										
Wood Window and Door Manufacturing	0	0%	0	147	(26%)	1	1,489	27%	6	271
Other Millwork (including Flooring)	13	0	1	18	50%	2	934	49%	14	66
Sawmills	0	0	0	<10	0	2	702	10%	32	22
Prefabricated Wood Building Manufacturing	<10	0	1	<10	0	2	386	21%	5	77
Reconstituted Wood Product Manufacturing	0	0%	0	0	0%	0	229	50%	3	76
Wood Container and Pallet Manufacturing	0	0%	0	<10	0	2	216	10%	12	18
Wood Preservation	0	0%	0	11	0	1	207	(1%)	4	52
Cut Stock, Resawing Lumber, and Planing	0	0%	0	0	0%	0	78	136%	4	22
Hardwood Veneer and Plywood Manufacturing	0	0%	0	0	0%	0	67	(54%)	2	33
Softwood Veneer and Plywood Manufacturing	0	0%	0	0	0%	0	24	0	1	24
Upholstered Household Furniture Manufacturing	0	0%	0	965	(11%)	3	1,361	14%	11	124
Nonupholstered Wood Household Furniture Manufacturing	<10	0	1	17	(50%)	4	1,251	(53%)	22	57
Wood Kitchen Cabinet and Countertop Manufacturing	11	(21%)	2	17	(39%)	2	655	10%	39	17

Agricultural products are a strength in the region, with several efforts locally in Floyd to increase the number and profitability of local farmers, and develop food processing capacity to enable Floyd to capture more of the value from their agricultural produce.

- **Food processing/packaging/wholesale** of local farm produce. Opportunities to create value-added products from local agricultural commodities, including dairy products, wineries, or frozen/preserved produce products. Opportunities exist to connect local farmers and food producers to local farmers markets and ‘farm-to-table’ restaurants around the region by aggregating produce of several farms to meet larger orders.
- **Agriculture equipment and supplies wholesale/retail** provides an opportunity to serve local farmers with farm supplies, or equipment sales or repair. Similarly, agricultural equipment repair may represent a potential customer base for a machine/metalworking shop.
- **Natural and organic products** are a specialty sector that has several producers in Floyd as well as a potential customer base of stores and individual consumers.

Most local firms in this sector have facilities that would be an appropriate size for the Floyd Commerce Center, with 11 firms with facilities ranging from 1,500 to 5,000 ft², two firms with facilities ranging from 5,000 – 10,000 ft², two firms with facilities ranging from 10,000 – 20,000 ft², four firms with facilities ranging from 20,000 – 40,000 ft², and one firm with a facility over 40,000 ft². Food production firms are likely to require significant electricity, especially for refrigeration, and varying amounts of water depending on the process or product, and sufficient space for the loading and unloading of timber trucks or tractor trailers.

All agricultural production (crop and livestock) establishments had facilities smaller than 5,000 ft². Of grocery wholesalers in the region, six had facilities of 10,000 ft² or less, four had facilities of 20,000 – 40,000 ft², and one had a facility over 40,000 ft². In addition to the facility, wholesalers would need sufficient parking/pavement space to accommodate multiple tractor trailers.

AGRICULTURE SECTOR INDUSTRY TRENDS	FLOYD			NEW RIVER VALLEY			90 minute drive time			Average employees per firm
	2015 Jobs	2009 - 2015 % Change	2015 Establishments	2015 Jobs	2009 - 2015 % Change	2015 Establishments	2015 Jobs	2009 - 2015 % Change	2015 Establishments	
SUPPLIER FIRMS										
Animal Production and Aquaculture	15	(32%)	2	247	(1%)	16	1,464	17%	79	19
Crop Production	188	(23%)	7	262	(22%)	14	1,065	(3%)	74	14
Farm Labor Contractors and Crew Leaders	42	(7%)	0	73	(8%)	0	404	(4%)	1	404
Support Activities for Animal Production	<10	0	1	36	44%	5	121	26%	11	12
CUSTOMER FIRMS										
Supermarkets and Other Grocery (except Convenience) Stores	116	53%	4	1,464	13%	30	6,409	5%	149	43
All Other Specialty Food Stores	12	0	1	53	47%	5	178	18%	16	11
Meat Markets	<10	0	0	11	0	1	39	(32%)	6	6
Confectionery and Nut Stores	0	0%	0	<10	0	1	30	(3%)	6	5
Beer, Wine, and Liquor Stores	0	0%	0	10	0	2	29	53%	6	5
Baked Goods Stores	<10	0	1	<10	0	1	14	(53%)	4	4
Florists	<10	0	3	39	(19%)	11	195	(26%)	49	4
Full-Service Restaurants	146	103%	12	2,867	(3%)	119	12,252	9%	612	20
Limited-Service Restaurants	60	(2%)	5	2,475	7%	126	11,651	6%	574	20
Food Service Contractors	<10	0	0	445	30%	15	980	21%	52	19
Snack and Nonalcoholic Beverage Bars	<10	0	1	171	34%	18	642	2%	67	10
Cafeterias, Grill Buffets, and Buffets	0	0%	0	120	224%	4	639	41%	26	25
Caterers	<10	0	0	30	(38%)	2	159	(31%)	13	12
Mobile Food Services	<10	0	0	<10	0	1	75	88%	6	14
POTENTIAL COMMERCE CENTER USERS										
Cheese Manufacturing	0	0%	0	0	0%	0	<10	0	1	na
Commercial Bakeries	0	0%	0	0	0	0	395	21%	4	99
Wineries	60	(29%)	1	66	(25%)	3	215	19%	18	12
Spice and Extract Manufacturing	0	0%	0	0	0%	0	81	0	2	40
All Other Leather Good and Allied Product Manufacturing	57	171%	2	57	171%	2	71	65%	4	18
Confectionery Manufacturing from Purchased Chocolate	0	0%	0	0	0%	0	70	(10%)	2	35
Retail Bakeries	0	0	0	51	(41%)	2	60	(50%)	3	20
Breweries	0	0%	0	<10	0	0	16	(30%)	3	5
Ice Cream and Frozen Dessert Manufacturing	14	0	1	14	0	1	14	0	1	14
Dairy Product (except Dried or Canned) Merchant Wholesalers	0	0%	0	<10	0	0	<10	0	3	na
Meat and Meat Product Merchant Wholesalers	0	0%	0	<10	0	1	<10	0	4	na
Confectionery Merchant Wholesalers	0	(100%)	0	19	(46%)	3	296	44%	14	22
Beer and Ale Merchant Wholesalers	0	0%	0	39	(24%)	1	277	(19%)	4	69
Farm Supplies Merchant Wholesalers	<10	0	2	33	(46%)	3	242	(7%)	22	11
Farm and Garden Machinery and Equipment Merchant Wholesalers	0	0%	0	<10	0	2	207	(20%)	22	9
Fresh Fruit and Vegetable Merchant Wholesalers	0	0%	0	<10	0	1	158	(10%)	10	16
Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	<10	0	2	25	0	3	85	23%	9	9
Nursery, Garden Center, and Farm Supply Stores	<10	0	0	76	85%	9	442	79%	52	9
Farm Product Warehousing and Storage	0	0%	0	0	0%	0	0	(100%)	0	

Regional manufacturing industry clusters and supplier firms

Lighting manufacturing is a strength in Floyd and in the region, with custom lighting firms locally and a variety of supplier industries in the region, such as electrical component manufacturing, as well as customer industries in the region, including construction, automotive, recreation products.

Custom machining/metalwork A custom metalwork and machining shop may be able to serve local industries including agriculture equipment, industrial machinery manufacturing, and custom parts for the auto, aerospace, plastics, lighting or construction sectors. Although a small facility likely would not supply large OEMs with parts for assembly, opportunities may exist for custom parts or repair for industrial production equipment. Regional metal manufacturers' facilities vary greatly, with nine firms' facilities under 10,000 ft², four firms with facilities 10,000 – 20,000 ft², five firms with facilities 20,000 – 40,000 ft², and one firm with a facility larger than 40,000 ft². Firms in this sector will need space for tractor trailers.

Commercial printing/screen printing serves a variety of regional industry sectors, including plastics, paper/packaging, education, business services, apparel and leather products. Regional printing businesses facilities range from 2,500 -10,000 ft² (eight firms), with some larger printers using 10,000 – 20,000 ft² (five firms) or 20, 000 – 40,000 ft² facilities (one firm). Printing facilities may need space for small trucks to deliver orders, and parking for customers.

Industrial machinery and equipment manufacturing and repair serves all manufacturing sectors. Repair shops typically have smaller facilities, with all local firms' facilities under 10,000 ft². Regional equipment manufacturers' facilities vary greatly, with nine firms' facilities under 10,000 ft², two firms with facilities 10,000 – 40,000 ft², two firms with facilities 40,000 100,000 ft², and two firms with facilities larger than 100,000 ft². Firms in this sector will need space for tractor trailers.

Electronic component manufacturing is a supplier sector to many regional industry clusters, including automotive, aerospace, and lighting manufacturing. Regional facilities for firms in this sector are typically over 100,000 ft², and employ several hundred workers. Facilities of this size may not be appropriate for the Commerce Center.

Industry sector description	FLOYD			NEW RIVER VALLEY			90-minute drive time			Average employees per firm
	2015 Jobs	2009 - 2015 % Change	2015 Establishments	2015 Jobs	2009 - 2015 % Change	2015 Establishments	2015 Jobs	2009 - 2015 % Change	2015 Establishments	
LIGHTING MANUFACTURING FIRMS										
Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing	48	(36%)	1	273	(10%)	2	277	(13%)	3	92
Residential Electric Lighting Fixture Manufacturing	0	0%	0	0	(100%)	0	115	51%	2	58
Industrial and Commercial Fan and Air Purification Equipment Manufacturing	0	0%	0	0	0%	0	111	102%	5	22
MACHINE SHOP AND METALWORK FIRMS										
Machine Shops	<10	0	0	99	25%	12	645	2%	61	11
Fabricated Structural Metal Manufacturing	0	0%	0	0	0	0	567	129%	7	81
Machine Tool Manufacturing	0	0%	0	0	0%	0	63	215%	5	13
Plate Work Manufacturing	0	0%	0	137	80%	4	201	19%	9	22
Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	0	0%	0	49	32%	2	198	(20%)	8	25
Electroplating, Plating, Polishing, Anodizing, and Coloring	0	0%	0	37	(47%)	1	61	(50%)	3	20
Fabricated Pipe and Pipe Fitting Manufacturing	0	0%	0	132	61%	1	258	(10%)	4	64
Sheet Metal Work Manufacturing	<10	0	0	16	60%	2	240	(9%)	16	15
All Other Miscellaneous Fabricated Metal Product Manufacturing	0	0%	0	<10	0	2	65	(8%)	10	7
Metal Coating, Engraving, and Allied Services to Manufacturers	0	0	0	<10	0	1	14	8%	5	3
COMMERCIAL PRINTING FIRMS										
Commercial Printing (except Screen and Books)	<10	0	1	14	(44%)	5	779	(17%)	54	15
Commercial Screen Printing	<10	0	1	33	(6%)	4	142	31%	13	11
INDUSTRIAL EQUIPMENT MANUFACTURING FIRMS										
Conveyor and Conveying Equipment Manufacturing	0	0%	0	0	0%	0	223	(48%)	9	25
Gasket, Packing, and Sealing Device Manufacturing	0	0%	0	266	19%	1	268	18%	2	134
Other Industrial Machinery Manufacturing	0	0%	0	152	0	1	349	326%	7	48
Other Measuring and Controlling Device Manufacturing	0	0%	0	<10	0	0	144	25%	1	144
ELECTRICAL AND COMMUNICATIONS EQUIPMENT MANUFACTURING FIRMS										
Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing	0	0%	0	0	0%	0	160	65%	2	80
Semiconductor and Related Device Manufacturing	0	0%	0	16	33%	1	157	(1%)	4	42
Switchgear and Switchboard Apparatus Manufacturing	0	0%	0	<10	0	1	49	23%	2	32
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and In	0	0%	0	0	0%	0	64	10%	2	43
Other Communications Equipment Manufacturing	<10	0	0	26	0	1	71	16%	2	32
SELECT MANUFACTURING SECTORS										
Motor and Generator Manufacturing	0	0%	0	1,320	(6%)	8	1,493	(3%)	12	130
Relay and Industrial Control Manufacturing	0	0%	0	65	(79%)	3	820	(27%)	6	149
Motor Vehicle Seating and Interior Trim Manufacturing	0	0%	0	187	939%	1	188	944%	2	125
Other Motor Vehicle Parts Manufacturing	0	0%	0	552	20%	3	663	1%	6	121

Other manufacturing sectors

Plastics manufacturing supplies many regional clusters, including automotive, food processing, aerospace, electrical equipment, and recreational equipment. Although this represents a relatively strong cluster in the region surrounding Floyd, the space and transport needs of plastic manufacturers may not be the most appropriate fit for the Floyd Commerce Center property. Regional facilities for firms in this sector are typically over 100,000 ft², and employ several hundred workers. Facilities of this size may not be appropriate for the Commerce Center.

Firms that meet a need in Floyd

Assisted living facility/home health represent a need in Floyd, which does not have such a facility. Five firms have facilities under 10,000 ft², three firms have facilities from 10,000 – 20,000 ft², eight firms have facilities from 20,000 – 40,000 ft², four firms have facilities from 40,000 – 100,000 ft², and four firms have facilities over 100,000 ft². These facilities will need ample parking for staff and visitors.

Other emerging opportunities

Software/IT/unmanned systems are a smaller, high-tech, and have a growing presence in the region, mostly located near Virginia Tech. Firms in this sector have a broad range of facilities based on their number of employees and whether their business requires significant hardware/data processing. Seven firms have facilities under 10,000 ft², six firms have facilities from 10,000 – 20,000 ft², four firms have facilities from 20,000 – 40,000 ft², and three firms have facilities from 40,000 – 100,000 ft².

A variety of other types of businesses show promise based on developments regionally, or based on desired sectors to align with Floyd economic development planning efforts. While these sectors do not have economic data available, further exploration of these opportunities may provide an understanding of their facility needs. These sectors include: **R&D, prototyping, custom parts manufacturing (3D printing); 'green' building products or alternative energy production or wholesale, and; recreation equipment manufacturing.**

Industry sector description	FLOYD			NEW RIVER VALLEY			90-minute drive time			Average employees per firm
	2015 Jobs	2009 - 2015 % Change	2015 Establishments	2015 Jobs	2009 - 2015 % Change	2015 Establishments	2015 Jobs	2009 - 2015 % Change	2015 Establishments	
PLASTICS MANUFACTURING FIRMS										
Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	0	0%	0	0	0%	0	617	53%	2	274
Polystyrene Foam Product Manufacturing	0	0%	0	36	0	1	365	28%	4	91
Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing	0	0%	0	0	0%	0	311	8%	2	207
Plastics Bag and Pouch Manufacturing	0	0%	0	0	0%	0	146	(71%)	1	146
Plastics Packaging Film and Sheet (including Laminated) Manufacturing	0	0%	0	102	0	1	102	28%	1	102
Plastics Bottle Manufacturing	0	0%	0	0	0%	0	94	488%	1	94
Unlaminated Plastics Profile Shape Manufacturing	0	0%	0	0	0%	0	46	119%	1	46
Plastics Pipe and Pipe Fitting Manufacturing	0	0%	0	<10	0	1	16	(72%)	2	8
All Other Plastics Product Manufacturing	0	0%	0	376	201%	3	1,243	230%	14	92
SPORTING GOOD MANUFACTURING FIRMS										
Sporting and Athletic Goods Manufacturing	<10	0	0	34	0	0	85	(49%)	3	34
Sporting and Recreational Goods and Supplies Merchant Wholesalers	0	0%	0	<10	0	1	43	153%	8	5
SOFTWARE/IT FIRMS										
Data Processing, Hosting, and Related Services	0	0	0	95	67%	5	436	(6%)	24	19
Wireless Telecommunications Carriers (except Satellite)	0	0%	0	<10	0	3	132	(17%)	21	6
Software Publishers	0	0%	0	38	19%	8	55	12%	13	4
Internet Publishing and Broadcasting and Web Search Portals	<10	0	1	11	0	7	34	113%	16	2
Computer Facilities Management Services	0	0%	0	<10	0	1	1,804	1%	12	150
Computer Systems Design Services	<10	0	2	441	47%	41	1,351	28%	129	10
Custom Computer Programming Services	<10	0	4	372	94%	43	689	30%	119	6
Research and Development in the Physical, Engineering, and Life Sciences (except	<10	0	1	287	(35%)	26	401	(26%)	40	10
Other Scientific and Technical Consulting Services	<10	0	2	60	(38%)	11	159	(17%)	43	4
Graphic Design Services	<10	0	1	29	53%	3	124	24%	19	7
HEALTH CARE/RETIREMENT SECTOR FIRMS										
Nursing Care Facilities (Skilled Nursing Facilities)	129	12%	1	724	(3%)	6	5,486	(3%)	45	121
Services for the Elderly and Persons with Disabilities	80	(34%)	66	553	40%	402	4,093	98%	2,989	1
Home Health Care Services	<10	0	0	306	28%	18	2,926	25%	85	34
Continuing Care Retirement Communities	0	0%	0	399	11%	3	1,963	13%	27	72
Assisted Living Facilities for the Elderly	11	0	1	47	(45%)	7	1,173	(6%)	44	27
Other Residential Care Facilities	0	0%	0	<10	0	1	574	(0%)	20	29
Outpatient Mental Health and Substance Abuse Centers	0	0%	0	<10	0	3	406	0%	25	16
Residential Mental Health and Substance Abuse Facilities	<10	0	1	<10	0	1	338	60%	10	36

2016 Market & Feasibility Study

Part 2: Transportation

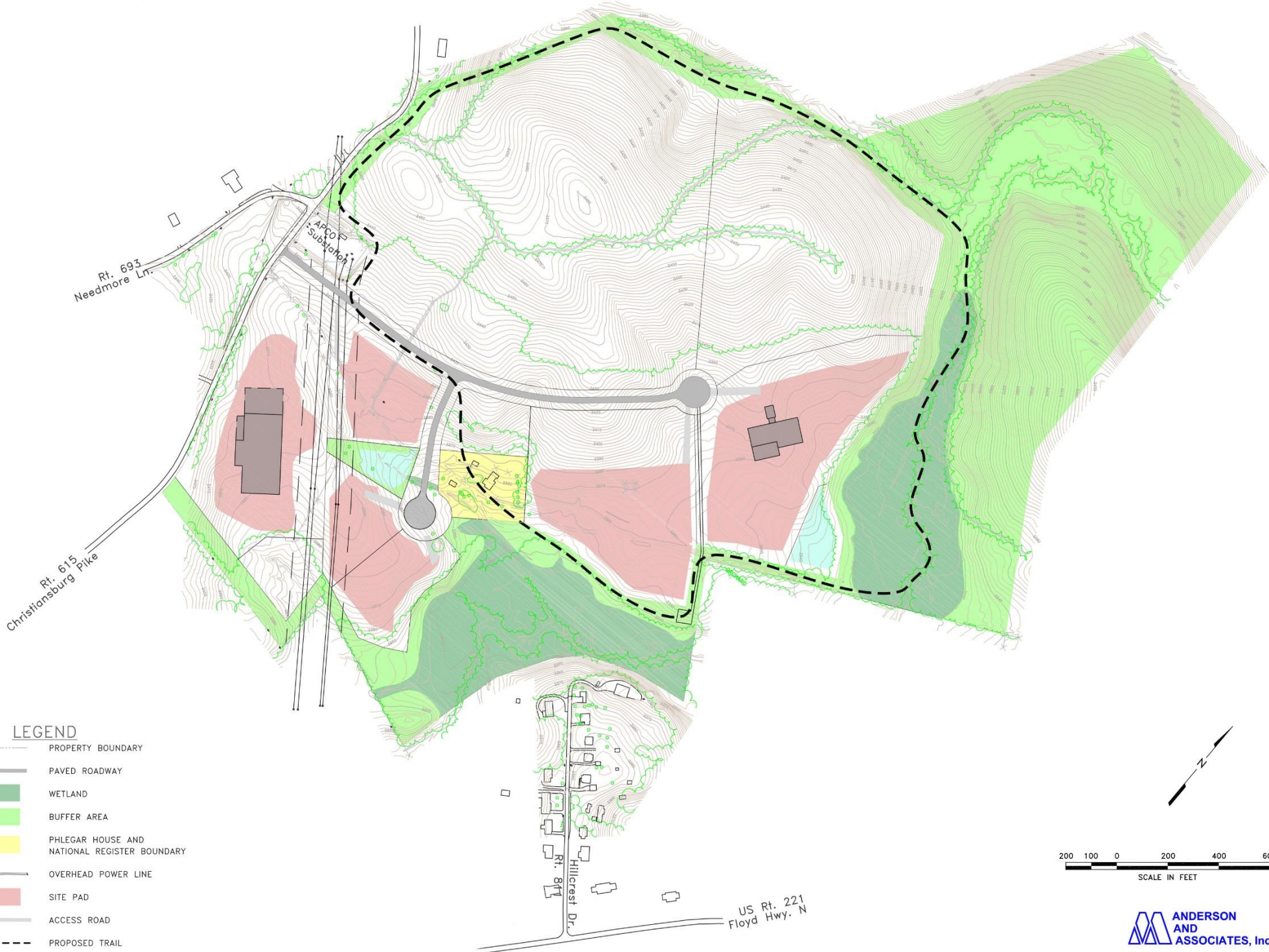
Overview

The Floyd County Regional Commerce Center is situated just outside of town limits and is accessible via Route 8 and US Route 221. Commerce Center Drive is within VDOT right-of-way and provides reasonable access for existing tenants. This study examines the roadway infrastructure that supports existing businesses and potential improvements to support future industry needs.

As of 2016, only two parcels remain undeveloped within the center. Coincidentally the two parcels are the largest within the center property. Based on economic trends, further subdividing the larger parcels to support smaller industries and greater business diversity could be advantageous for Floyd County stakeholders.

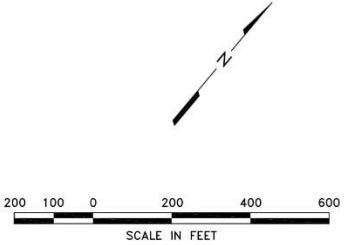
Improving the supporting transportation network is two-fold: 1) creating new road frontage and improving circulation within the center; and 2) improving the connectivity to Route 8 and US Route 221. Creating additional road frontage enables the County to further subdivide the remaining two large parcels. Improving connectivity to key transportation corridors benefits in-coming/out-going freight and job access. The image (adjacent) illustrates the original 2007 Commerce Center concept.

Floyd Regional Commerce Center



LEGEND

- PROPERTY BOUNDARY
- PAVED ROADWAY
- WETLAND
- BUFFER AREA
- PHLEGAR HOUSE AND NATIONAL REGISTER BOUNDARY
- OVERHEAD POWER LINE
- SITE PAD
- ACCESS ROAD
- PROPOSED TRAIL



Strategies

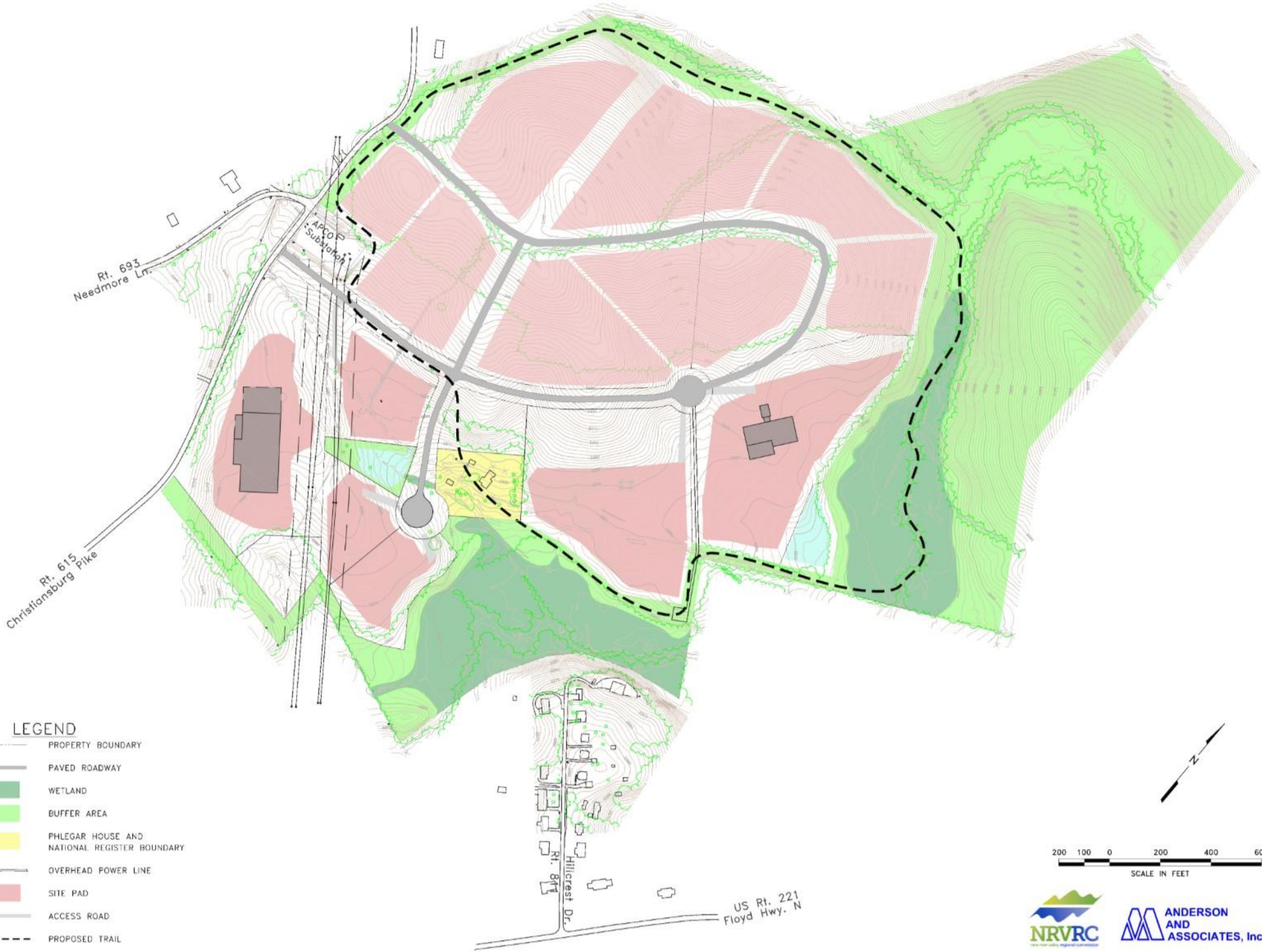
This section highlights strategies developed with local, regional, and statewide partners. May 2015, representatives of the County and County Board of Supervisors, County Economic Development Alliance, Hollingsworth and Vose, NRV Economic Development Alliance, and NRV Regional Commission met to discuss transportation and economic development challenges. Strategies shared at the meeting included:

1. Improving access for large vehicles
2. Improving marketability of available property
3. Maximizing benefits of existing infrastructure (100GB Broadband, power, etc.)
4. Identifying additional infrastructure needs to support emerging industries (alternative energies, pedestrian access, water, etc.)

February 2016, representatives of the County and County Economic Development Alliance, Virginia Department of Transportation (VDOT), and NRV Regional Commission met to discuss potential transportation funding and planning resources. VDOT provided a general overview of federal and statewide programs that are typically pursued to improve access to industrial properties. The meeting concluded with a field visit to explore the existing conditions of the supporting infrastructure. Perhaps even more important, the site visits enabled meeting attendees to visualize each challenge and explore potential solutions.

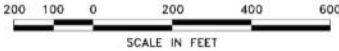
Following the field visit, the NRV Regional Commission developed conceptual planning drawings to assist the County with determining program eligibility with grant agencies, specifically programs offered through VDOT and the Appalachian Regional Commission. Each of the planning concepts were aimed at addressing the strategies identified in May 2015. The image (adjacent) illustrates how the center's characteristics would change as a result of the strategies explored during this study process.

Floyd Regional Commerce Center




LEGEND


- PROPERTY BOUNDARY
- PAVED ROADWAY
- WETLAND
- BUFFER AREA
- PHLEGAR HOUSE AND NATIONAL REGISTER BOUNDARY
- OVERHEAD POWER LINE
- SITE PAD
- ACCESS ROAD
- PROPOSED TRAIL




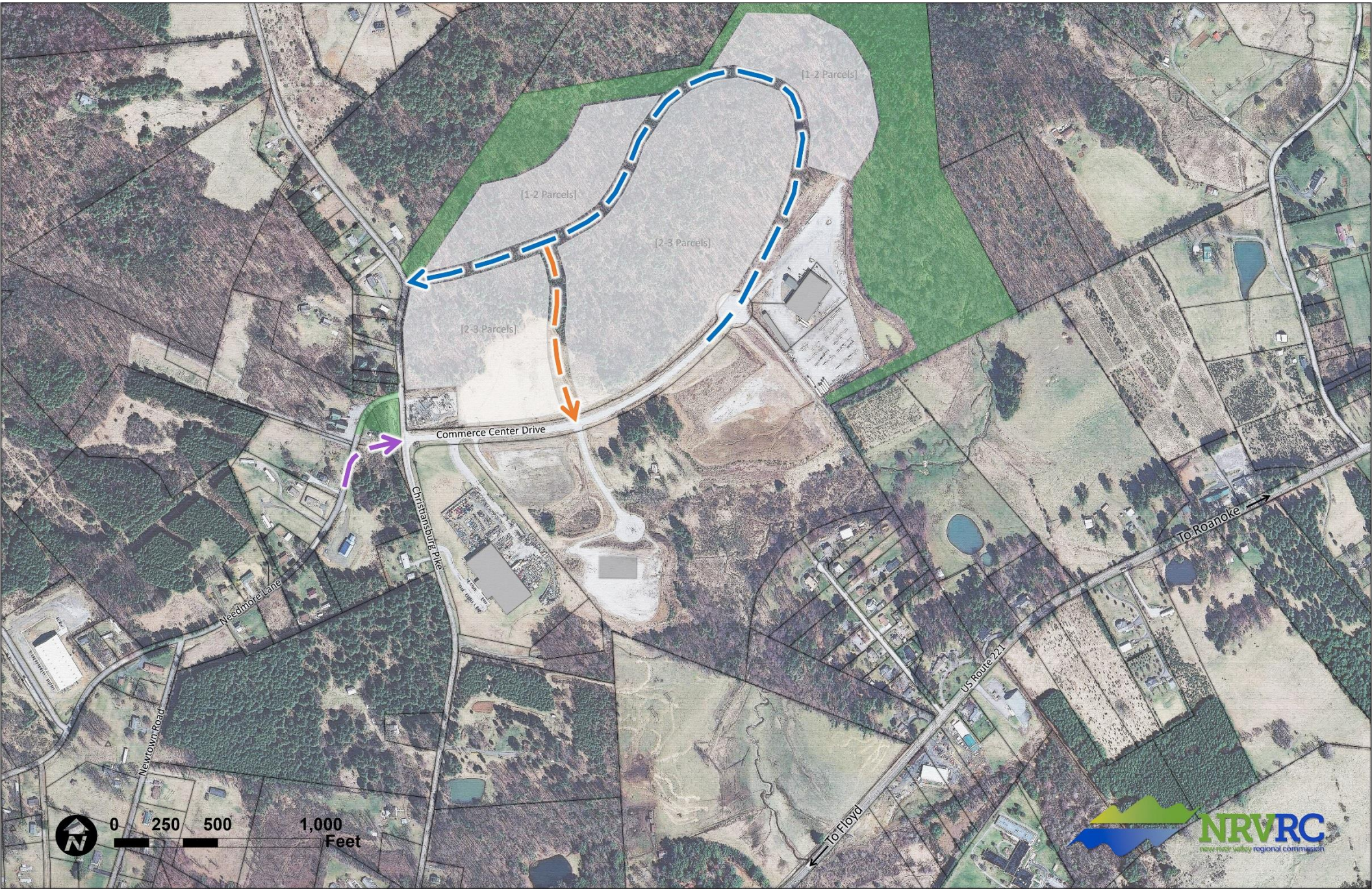
Regional Commerce Center Property Strategies

Expanding Commerce Center Drive is one method for creating additional property frontage. Rather than offering two extremely large parcels, the park can be further subdivided and create options to attract smaller industries. Two options were explored with local and state partners. Each option is described below and illustrated on the adjacent page.

Alternative A: Extend Commerce Center Drive to loop through the property and reconnect with Christiansburg Pike Road. This option  creates an alternative point of ingress/egress to the property. In addition, the offset entrance of Needmore Lane and Commerce Center Drive could be further navigated by larger trucks connecting to Route 8.

Alternative B: Extend Commerce Center Drive to loop within the property boundary. This option creates the same effect on creating  property frontage. In addition, this option may be preferred in the event that satisfactory sight distance cannot be achieved at a new intersection with Christiansburg Pike Road.

Alternative C: Re-align the intersection of Needmore Lane and Commerce Center Drive. This option creates a 4-way intersection that  significantly improves access management. The existing offset intersection creates less than desirable turning maneuverability for truck traffic, particularly between the center and Route 8.



0 250 500 1,000 Feet

Commerce Center Drive

Christiansburg Pike

Needmore Lane

Newtown Road

US Route 221

To Roanoke

To Floyd

[2-3 Parcels]

[1-2 Parcels]


[2-3 Parcels]


[1-2 Parcels]



Connectivity to Key Transportation Corridor – Route 8

The Commerce Park connects with Virginia Primary Route 8 via Needmore Lane and Parkview Road. The intersection of Parkview and Route 8 offers good sight distance and for most of the corridor, ample lane and shoulder width. However, truck traffic is required to navigate through two difficult horizontal curves, just before the intersection with Needmore Lane. In addition, Needmore Lane is relatively narrow and does not currently align with Commerce Center Drive at the intersection of Christiansburg Pike Road. Two options were explored with local and state partners. Each option is described below and illustrated on the adjacent page.

Alternative A: Improve the horizontal alignment of Parkview Road. Currently vacant property may need to be purchase or traded for a  parcel in the Regional Commerce Center. In addition, the intersection of Parkview and Needmore appears to meet the bare minimum VDOT standard of 60°. The turning radius for truck traffic would be greatly improved with a more perpendicular approach. Needmore Lane may also need to be widened to 12-foot travel lanes and standard shoulders, between Parkview Road and Christiansburg Pike Road.

Alternative B: Identify an alternative route/connection to the Regional Commerce Center. There is currently a public utility easement  that could offer additional options. Additional coordination would need to occur with at least two additional private property owners. If a new roadway is constructed, correcting the intersection with Commerce Center Drive and Christiansburg Pike Road is also recommended. The intersection re-alignment could also be a stand-alone phased project, as described under Regional Commerce Center Property Strategies.



To Commerce Park →

Christaburg Pike

Needmore Lane

Newton Road

Parkview Road





0 85 170 340 510 Feet



Connectivity to Key Transportation Corridor – US Route 221

US Route 221 provides the most direct access to a key transportation corridor. The corridor is in relatively good condition, although it could be brought up to VDOT's geometric standards (24-foot pavement width and standard shoulders). Perhaps the biggest is the intersection of Christiansburg Pike Road and US Route 221. With a 46° approach angle and lack of turn lanes, the corridor creates some unique challenges for truck traffic. Two options were explored with local and state partners. Each option is described below and illustrated on the adjacent page.

Alternative A: Realignment of Christiansburg Pike Road to improve the approach angle to US Route 221. US Route 221 would need to be  widened to incorporate both a north-bound and south-bound right turn lane. In addition, coordination with a minimum of two private property owners would need to occur. The realignment would significantly improve the turning radius and sight distance at this intersection.

Alternative B: Construct a round-about at the intersection of Christiansburg Pike Road and US Route 221. There are currently  undeveloped parcels to the north and south of US Route 221 – potentially creating sufficient right-of-way to install a round-a-bout large enough to accommodate truck traffic. The new round-a-bout would also serve as a traffic calming device, reducing the speed of traffic entering the town from the north.



Supporting Data

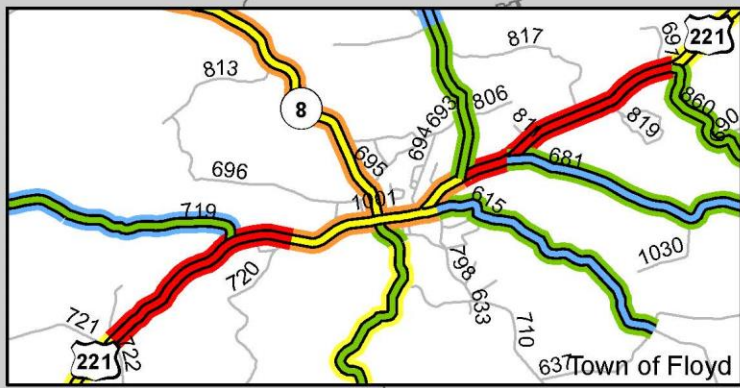
The Regional Commerce Park is one of the largest employment centers in Floyd County. Route 8 and US Route 221 are key regional networks that support Floyd County’s economy. Both roadways are 2-lane minor-arterials that traverse undulated topography, feature limited turning and passing lanes, and often present less than desirable sight distance with intersecting roadways. Conditions are amplified by truck traffic that cannot maintain speed, creating more time following by commuters and visitors. Poor intersection sight distance and turning lanes also leads to higher volumes of accidents. The map (adjacent) compares 2010 base year and 2035 forecast year the Level-of-Service (LOS).

As a general rule of thumb, 2-Lane roads are typically considered to be performing well up to about 10,000 vehicles per day. Introducing a lack of turning/passing lanes, mountainous terrain, and high volumes of truck traffic accelerate the level of service depreciation along 2-lane roadways. According to the Virginia Department of Transportation, daily traffic volumes increased from 6,200 to 7,400 (19%) between 2005 and 2015. Over that same period daily traffic volumes increased from 7,600 to 8,100 (6.5%) on US Route 221. Christiansburg Pike Road daily traffic also increased from 1,800 to 2,000 (11%).

Between 2010 and 2014, ten accidents were reported within close proximity to the Commerce Center. Two accidents along Christiansburg Pike and US Route 221 involved personal injury. In 2011 a pedestrian was injured at the intersection of US Route 221 and Christiansburg Pike Road. Other accidents typically occurred during daylight hours, dry conditions, and resulted in property damage (fender-bender).

Description					2015				
Route Num	Route Alias	Link Length	Start Label	End Label	AADT	Percent Vehicles	Percent Busses	Percent Trucks	AAWDT
8	South Locust St	0.27	SCL Floyd	US 221 Main St	1900	93%	2%	6%	2000
8	North Locust St	0.30	US 221 Main St	NCL Floyd	7400	97%	0%	3%	7800
8	Webbs Mill Rd	4.07	NCL Floyd	31-730 Ridge View Rd	7400	97%	0%	3%	7800
221	East Main St	0.33	WCL Floyd	SR 8 Floyd C H	3700	96%	1%	3%	3900
221	West Main St	0.61	SR 8 Floyd C H	ECL Floyd	8100	97%	0%	3%	8500
221	Floyd Highway North	2.04	ECL Floyd	31-860 Northeast of Floyd CH	8100	97%	0%	3%	8500
615	Christiansburg Pike	0.70	US 221 E, Floyd Hwy North	31-693 Needmore Lane	2000	97%	1%	2%	2100
615	Christiansburg Pike	0.90	31-693 Needmore Lane	31-817 N, Old Mill Rd	1800	97%	1%	2%	1800
693	Needmore Lane	1.00	31-695 Galen Lane	31-615 Christiansburg Pike	850	NA	NA	0%	780
748	Parkview Rd	0.70	SR 8 Webbs Mill Rd N	31-693 Needmore Lane	690	NA	NA	0%	670

Floyd County



Pulaski

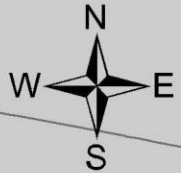
Montgomery

Roanoke

Franklin

Carroll

Patrick

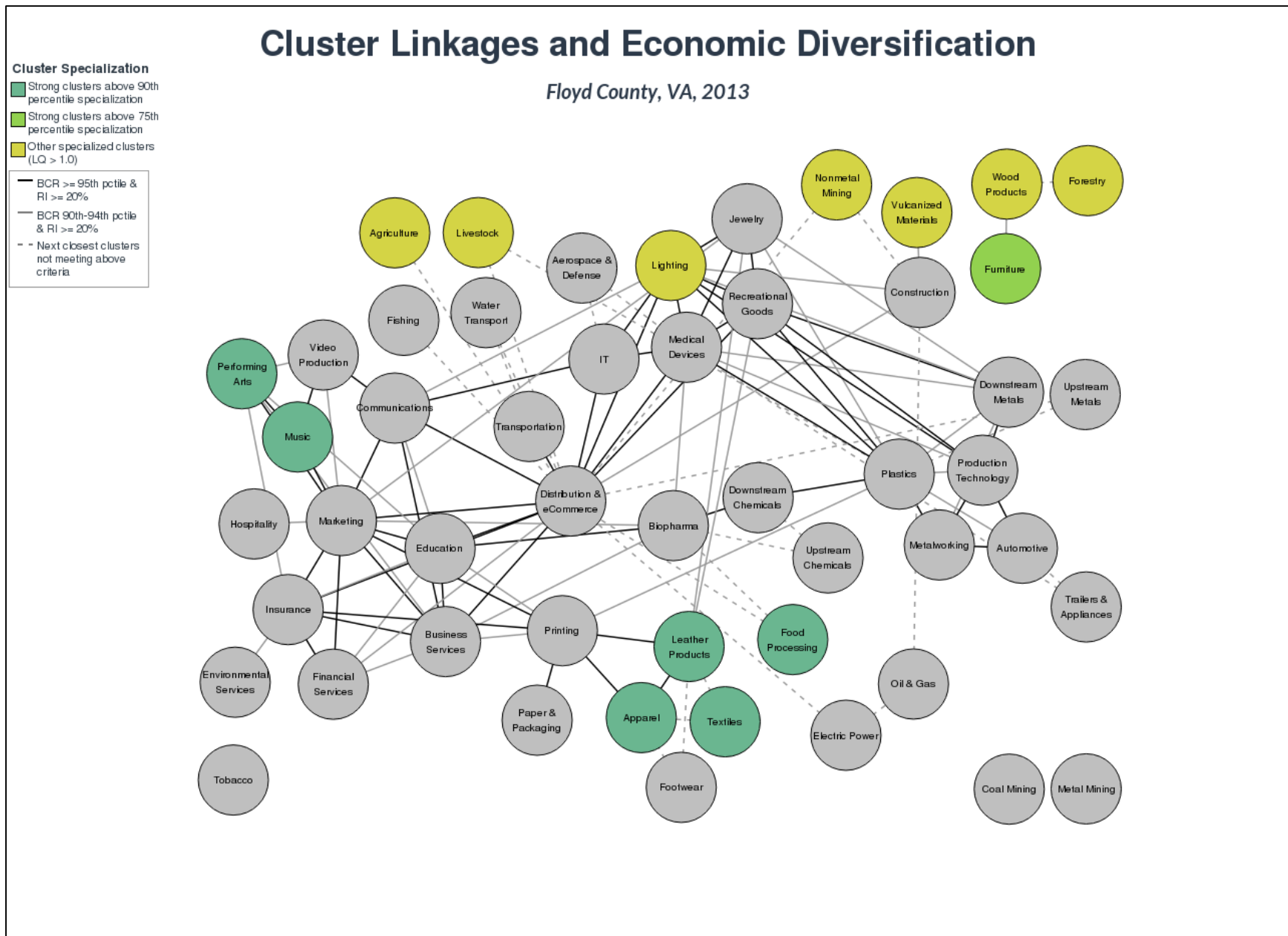


Legend

Base LOS 2035 LOS

- | | | |
|---|--|---|
| A | | A |
| B | | B |
| C | | C |
| D | | D |
| E | | E |
| F | | F |

APPENDIX A- INDUSTRY CLUSTER DATA FOR FLOYD, NEW RIVER VALLEY, and ROANOKE ECONOMIC AREA



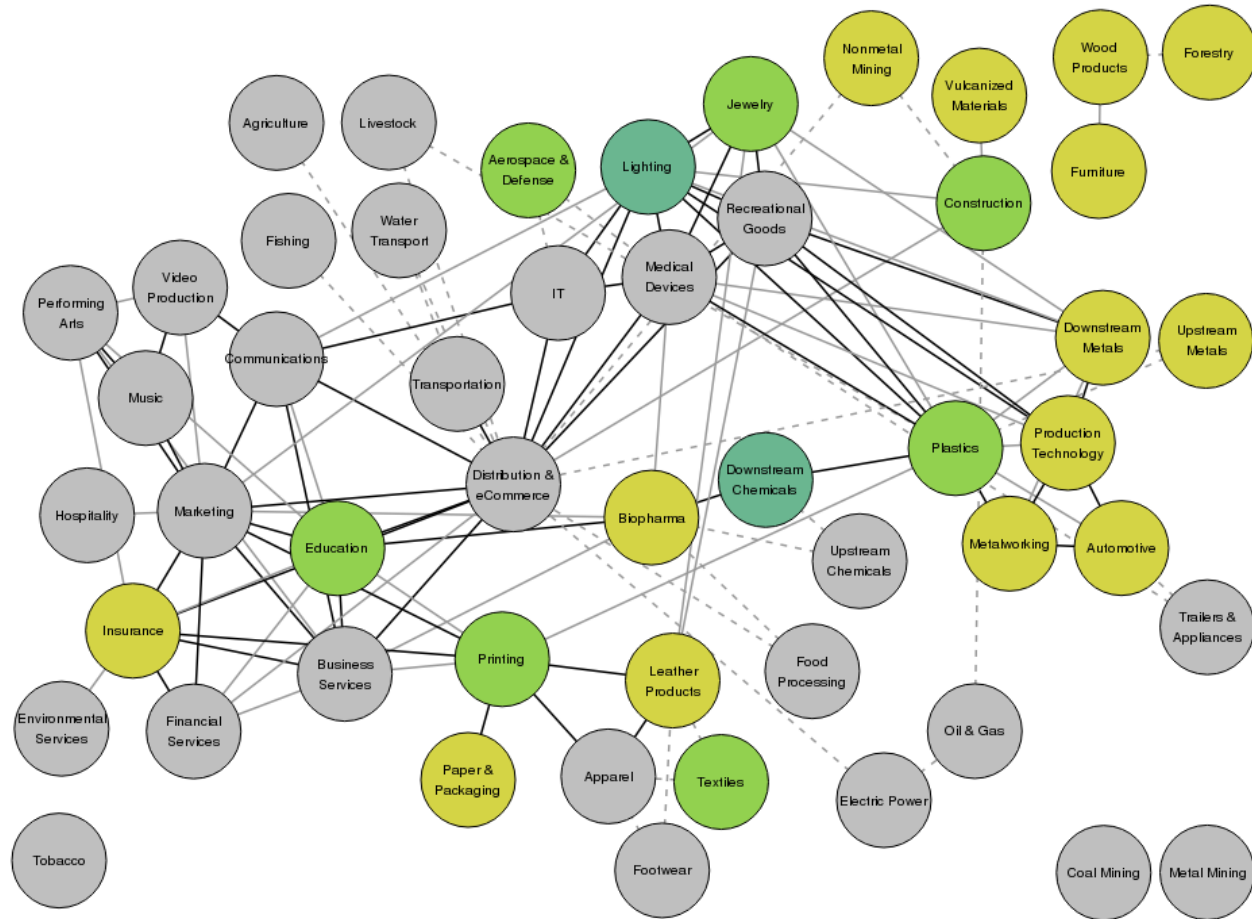
Cluster Linkages and Economic Diversification

Roanoke, VA Economic Area, 2013

Cluster Specialization

- Strong clusters above 90th percentile specialization
- Strong clusters above 75th percentile specialization
- Other specialized clusters (LQ > 1.0)

- BCR >= 95th ptile & RI >= 20%
- BCR 90th-94th ptile & RI >= 20%
- - Next closest clusters not meeting above criteria



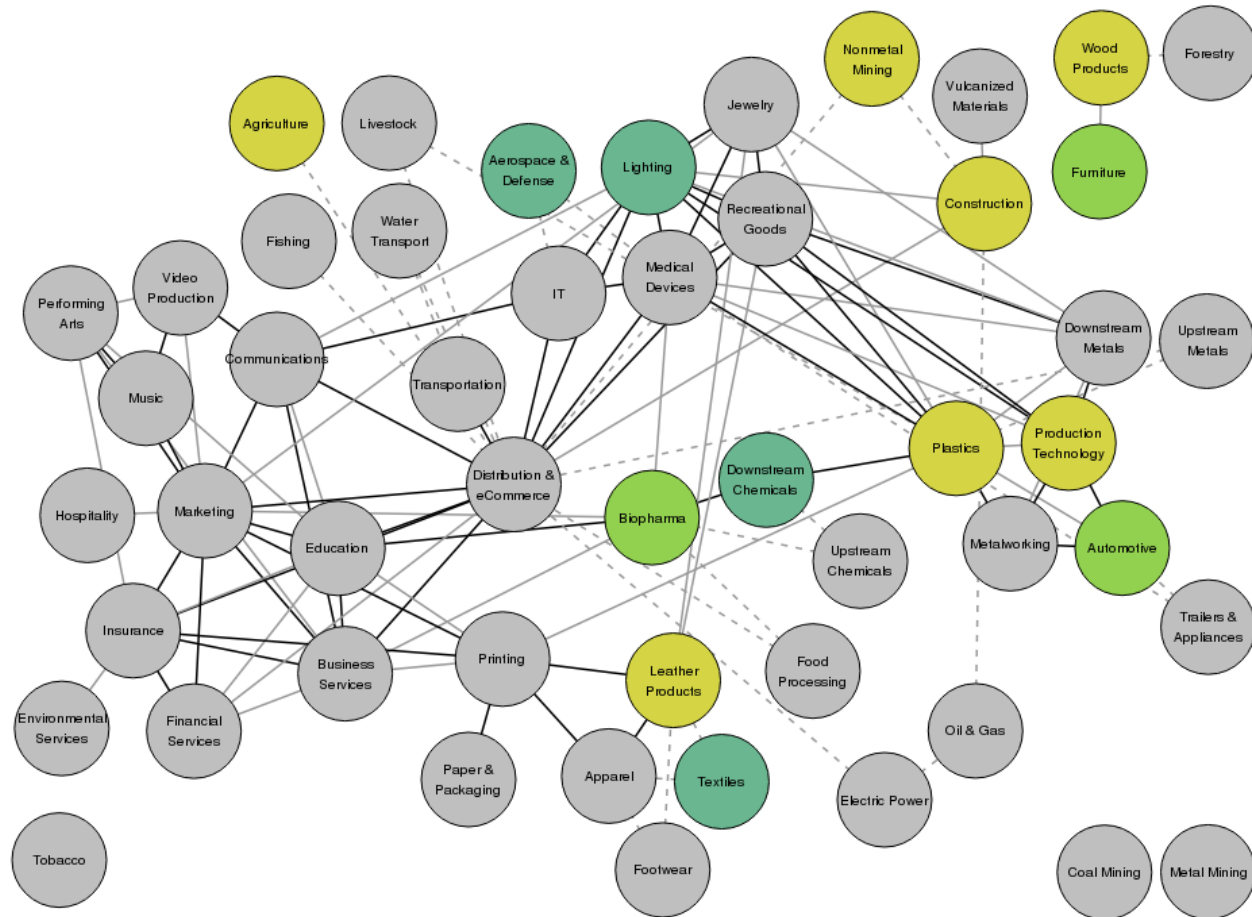
Cluster Linkages and Economic Diversification

Blacksburg, VA Metropolitan Area, 2013

Cluster Specialization

- Strong clusters above 90th percentile specialization
- Strong clusters above 75th percentile specialization
- Other specialized clusters (LQ > 1.0)

- BCR \geq 95th pctile & RI \geq 20%
- BCR 90th-94th pctile & RI \geq 20%
- Next closest clusters not meeting above criteria



APPENDIX B- Collision Data

CRASH DATE	COLLISION	SEVERITY	WEATHER	# VEHI	LIGHTING	SURFACE	HOUR	YEAR	ROUTE
12/10/2014	1. Rear End	property damage crash	1. Clear/Cloudy	2	2. Daylight	1. Dry	09:40	2014	R-VA SR00008SB
2/16/2012	2. Angle	property damage crash	5. Rain	2	2. Daylight	2. Wet	12:29	2012	R-VA031SC00615NB
4/8/2012	2. Angle	property damage crash	1. Clear/Cloudy	2	3. Dusk	1. Dry	19:35	2012	R-VA SR00008NB
8/26/2012	9. Fixed Object – Off Road	property damage crash	1. Clear/Cloudy	1	5. Darkness	1. Dry	20:20	2012	R-VA031SC00615NB
10/14/2012	1. Rear End	property damage crash	1. Clear/Cloudy	2	2. Daylight	1. Dry	13:20	2012	R-VA031SC00615NB
2/2/2011	2. Angle	injury crash	1. Clear/Cloudy	2	2. Daylight	1. Dry	14:30	2011	R-VA US00221SB
10/18/2011	12. Ped	pedestrian injury crash	1. Clear/Cloudy	1	2. Daylight	1. Dry	10:30	2011	R-VA031SC00615SB
5/11/2010	2. Angle	property damage crash	1. Clear/Cloudy	2	2. Daylight	1. Dry	07:55	2010	R-VA US00221NB
3/1/2010	9. Fixed Object – Off Road	injury crash	1. Clear/Cloudy	1	5. Darkness	1. Dry	22:20	2010	R-VA031SC00615SB