

**COUNTY OF SUSSEX**  
**TARGET BUSINESS AND INDUSTRY ANALYSIS**

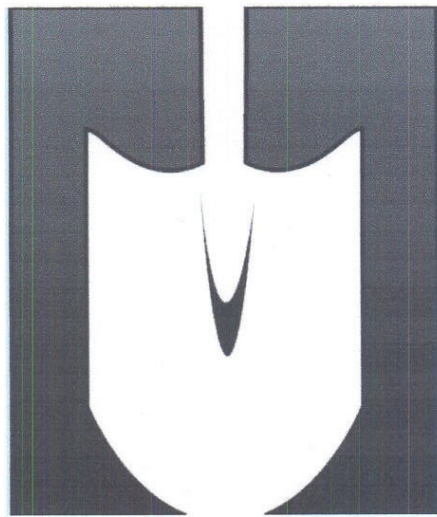
---

**APPENDIX F**

**“Right Now” Sites Program Manual**

**Virginia Economic Development Partnership**

# “Right Now” Sites Program Manual



**VIRGINIA**  
Is For Business

# TABLE OF CONTENTS

---

<b>Introduction .....</b>	<b>2</b>
<b>Readiness Standards .....</b>	<b>4</b>
<b>Light Manufacturing Sites .....</b>	<b>11</b>
<b>General Manufacturing Sites.....</b>	<b>15</b>
<b>Heavy Manufacturing Sites.....</b>	<b>19</b>
<b>Mega Sites.....</b>	<b>23</b>
<b>Business/Industrial Parks.....</b>	<b>27</b>
<b>Office Sites.....</b>	<b>31</b>
<b>Research and Development .....</b>	<b>35</b>
<b>Warehouse/Distribution Sites .....</b>	<b>39</b>
<b>Motorsports Sites .....</b>	<b>43</b>

# **“Right Now” Sites Program**

## **Introduction**

### **Purpose:**

VEDP has an inventory of over 1800 sites and buildings on file. This inventory varies from greenfield sites to upscale industrial parks and from older industrial buildings to new research and development space. Virginia’s economic development competitiveness would be enhanced if consultants and prospects could easily distinguish those sites that had all the essential elements in place for rapid business location from those sites and buildings that required additional evaluation and infrastructure development. This Program establishes the required elements and benchmark standards for sites that meet the requirements of eight industry groups (light manufacturing, general manufacturing, heavy manufacturing, business/industrial parks, warehouse/distribution, office parks, research and development and mega sites). In addition to these industry standards, a separate set of “readiness” standards has been developed to ensure that the sites can be developed for the intended use within a short time frame. These “Ready-To-Go” sites have a competitive edge in the market place, as evidenced by the success of certified site programs of other states and regions across the country and the success of VEDP’s previous community certification program. This “Right Now” Sites Program goes beyond identification and control of sites and includes elements that are tailored to today’s industry location factors (fiber optics, environmental issues, etc.) and short development schedules.

### **Program Objectives:**

- Increase the inventory of HIGH QUALITY SITES that meet specific industry standards
- Increase the number of sites that are “READY-TO-GO”
- STREAMLINE SITE LOCATION PROCESS minimizing downtime for site selection
- ENCOURAGE INVESTMENT in high quality sites at the local level



**Program:**

The "Right Now" Sites Program establishes standards for industry classifications and readiness. Technical assistance would be provided to each marketing region across the state to comply with the standards. VEDP staff, local ED staff, regional staff, appropriate allies, and consultants will all work to ensure the completion of all elements of the standards. Once the sites have met all of the standards, architectural and engineering consultants would be encouraged to prepare virtual development plan(s) for building(s) on these sites. Specific marketing materials could then be generated to reflect these development options. These "Right Now" Sites will then be featured on the VirginiaScan portion of VEDP's web site and have a special designation in VEDP's sites and buildings file.

**Process:**

Standards have been developed for the site readiness and eight general industry groups. The standards have been applied to a variety of sites in several areas of the state that were selected in consultation with the localities and regional staff. The host region/localities were assembled and the standards applied. Most of the selected sites met at least one of the eight industry standards but none of the sites met all of the "readiness" standards. Once the individual deficiencies had been identified, the locality was encouraged to engage professional assistance to complete the required tasks. Once a sufficient number of sites and buildings have met the standards, these sites will then be featured on VEDP's web site and flagged in VEDP's files as "Right Now" Sites and marketed to the industry groups as meeting the general industry requirements.

## **“Right Now” Sites**

### **Readiness Standards**

#### **Documentation:**

- **Site Control** – Available property should be in fee simple ownership with a title search. There should not be any unusual covenants or easements that restrict the usage or transferability of the property for industrial purposes. If a private site is proposed for business or industrial use a “right of first refusal” at a fixed price is preferred.
- **Plat** – A plat of the property, prepared by a licensed surveyor, is recommended.
- **Aerial Photograph** – High-resolution satellite imagery or low elevation aerial photography showing the site and adjacent properties is required. Major rail, road and utility lines should all be identified. Where possible, digital imagery should be used. VEDP may be a potential source for the imagery.
- **Zoning and Comprehensive Plan** – The property should be designated for the intended use in both the locally adopted zoning ordinance and comprehensive plan.
- **Sale Price** – An established sale price (in writing) needs to be provided from the owner.
- **Site Plan/Master Plan** – The site should have a site plan or master plan of development that shows the location of all utilities, rights-of-way, set backs, special districts, fiber optic cable, roads and potential parcel configuration(s). The plan should show both existing facilities and planned facilities and should indicate the developable acreage and potential pad sites for future buildings.

#### **Infrastructure:**

- **Signage** – The industrial/commercial site/park should be clearly identified with an attractive sign that establishes the image that you wish to convey. The park needs to be well maintained and presentable at all times. A site that looks like a pasture or is cluttered with debris does not present the image of prime industrial/commercial property or availability for immediate location by a business.



- **Industrial Access** – Highway access to the property should be adequate to handle anticipated volumes of truck and car traffic. A four-lane access to the property is ideal but an improved two-lane state-maintained highway might be adequate if it can accommodate the anticipated truck and car traffic. An industrial/business park needs an industrial access road serving the entrance to the park and providing access to the sites in the interior of the park. The identification of the route of any construction roads and the timetable for completion of the industrial access road should be documented. Highway access must be clearly shown on the site plan or master plan of development.
- **Water and Sewer to Site** – A minimum six-inch water and eight-inch sewer line must serve the site. The water supply must be adequate to serve proposed industrial uses and operate fire suppression in future industrial/commercial buildings. There must be adequate reserve sewerage capacity in the plant to handle projected flows. The location of all water and sewer lines, pump stations and water tanks should be clearly shown on the master plan of development. If water and sewer capacity is not available, a clear outline of the required improvements, costs and time frame for construction should be available.
- **3-Phase Power** – The site should be served by 3-phase power adequate to support industrial/commercial usage. Dual sources of electric power from two sub-stations are preferred. The location of the power lines and service should be clearly shown on the master plan of development. Utility company documentation of power capacity and service is required.
- **Fiber Optic Cable at the Site** – The site should be served by a telecommunications provider able to provide T-1 service or greater. The location of the cable, switches or other telecommunications infrastructure serving the site should be clearly identified on the area map and master plan of development. Where possible, telecommunications conduit should run throughout the industrial/commerce park.
- **Natural Gas Line Location** – If natural gas service is available to the site, the location of the line should be clearly identified on a master plan of development for the property. If gas service is not available to the site, a cost estimate should be prepared for extending service to the property if determined to be feasible. Where possible, the cost of providing gas service should be supplied by the gas company.
- **Rail Line Location/Spur Layout** – The railroad should be consulted on the feasibility and cost of providing rail service to the site. If rail service is available to the site, a cost estimate to provide a rail spur to one or more of the individual sites in the property should be prepared.



## Environmental:

- Phase I Environmental Study – A Phase I Environmental study meeting the ASTM Standards, Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process (designation: E1527-97), of the site should be completed. The study should identify any unique drainage or environmental requirements associated with the site, such as the Chesapeake Bay Preservation Act.
- Corps of Engineers Wetlands Delineation – Any wetlands on the site should be identified, surveyed, recorded and approved by the Corps of Engineers. VEDP is a source of national wetland inventory data. This national wetlands inventory data will indicate whether additional survey work to locate and map the wetlands on site is required.
- Storm Water Management Plan – A storm water management plan meeting local and state requirements should be prepared for the site, parcel or development.
- Rare and Endangered Species Management Plan – If rare or endangered species have been identified on the site as a result of a Phase I environmental or other study, a management plan should be prepared and adopted by the owner of the site. The management plan should outline how development will occur on the site without posing a threat to the rare or endangered species identified. DCR and DGIF are potential sources of the initial data on the possible locations of rare and endangered species.
- Archaeological Site Assessment – If potential archaeological resources have been identified on the site a thorough archaeological survey of the sites should be conducted by a qualified archaeological team.
- Historic and Archaeological Treatment Plan – If archaeological or historical features have been identified on the site, a treatment plan must be prepared and adopted by the owner of the site. The treatment plan should identify the specific methods that will be used to preserve the archaeological or historic features found on the site. The Dept. of Historic Resources is a potential source of data on the location of known historic and archaeological sites on the property.
- Geotechnical Study – An analysis of the suitability of the soils and geology for industrial usage should be available on the site showing at a minimum the load bearing capacity and water table. Any unusual geologic formations should be identified.



**Marketing Materials:**

- Regional Map – A map showing the industrial park in relation to major multi-state markets, including major transportation routes serving those markets, should be available.
- Area Map – A map of the region using the labor market radius and showing the site, major roads, rail, other transportation, etc., is helpful.
- Marketing Material – A color specification sheet with a photograph of the site should be available to distribute to prospective businesses wishing to locate in the industrial park.

## RIGHT NOW SITES READINESS STANDARDS CHECKLIST

Criteria	Local Assessment	Meets Criteria	Materials Provided
<b>Site Control</b> – Available property should be in fee simple ownership with a title search. There should not be any unusual covenants or easements that restrict the usage or transferability of the property for industrial purposes. If a private site is proposed for business or industrial use, a “right of first refusal” at a fixed price is preferred.			
<b>Plat</b> – A plat of the property prepared by a licensed surveyor is recommended.			
<b>Aerial Photograph</b> – High-resolution satellite imagery or low elevation aerial photography needs to be available showing the site and adjacent properties. Major rail, road, and utility lines should all be identified. Where possible, digital imagery should be used. VEDP may be a potential source for the imagery.			
<b>Zoning and Comprehensive Plan</b> – The property should be designated for the intended use in both the locally adopted zoning ordinance and comprehensive plan.			
<b>Sale Price</b> – An established sale price (in writing) needs to be provided from the owner.			
<b>Site Plan/Master Plan</b> – The site should have a site plan or master plan of development that shows the location of all utilities, rights-of-way, set backs, special districts, fiber optic cable, roads, and potential parcel configurations(s). The plan should show both existing facilities and planned facilities. The plan should indicate the developable acreage and potential pad sites for future buildings.			
<b>Signage</b> – The industrial/commercial site/park should be clearly identified with an attractive sign. The park needs to be well maintained and presentable at all times.			
<b>Industrial Access</b> – Highway access to the property should be adequate to handle anticipated volumes of truck traffic. A four-lane access to the property is ideal but an improved two-lane State maintained highway might be adequate if it can accommodate the anticipated truck and car traffic. An industrial/business park needs an industrial access serving the entrance to the park and providing access to the sites in the interior of the park. The identification of the route of any construction roads and the timetable for completion of the industrial access road should be documented. Highway access must be clearly shown on the site plan or master plan of development.			



<p><b>Water and Sewer to Site</b> – A minimum six-inch water and sewer line must serve the site. The water supply must be adequate to serve proposed industrial uses and operate fire suppression in future industrial/commercial buildings. There must be adequate reserve sewerage capacity in the plant to handle projected flows. The location of all water and sewer lines, pump stations and water tanks should be clearly shown on the master plan of development. If water and sewer capacity are not available, a clear outline of the required improvements, costs, and time frame for construction should be available.</p>			
<p><b>Three-Phase Power</b> – The site should be served by three-phase power adequate to support industrial/commercial usage. Dual sources of electric power from two sub-stations are preferred. The location of the power lines and service should be clearly shown on the master plan of development.</p>			
<p><b>Fiber Optic Cable at the Site</b> – The site should be served by a telecommunications provider able to provide T-1 or greater service. The location of the cable, switches, or other telecommunications infrastructure serving the site should be clearly identified on the area map and master plan of development. Where possible, telecommunications conduit should run throughout the industrial/commerce park.</p>			
<p><b>Natural Gas Line Location</b> – If natural gas service is available to the site, the location of the line should be clearly identified on a master plan of development of the property. If gas service is not available to the site, a cost estimate should be prepared to bring the service to the property if determined to be feasible. Where possible, the costs of providing gas service should be supplied by the gas company.</p>			
<p><b>Rail Line Location/Spur Layout</b> – If rail service is available to the site, a cost estimate to provide a rail spur to one or more of the individual sites in the property should have been prepared. The railroad should have been consulted on the feasibility of providing rail service to the site(s) and the costs of providing such service.</p>			
<p><b>Phase 1 Environmental Study</b> – A Phase 1 Environmental Study meeting the ASTM Standards, Standard Practice for Environmental Site Assessments: Phase 1 Site Assessment Process (designation: E1527-97), of the site should have been completed. The study should identify any unique drainage or environmental requirements associated with the site, such as the Chesapeake Bay Preservation Act.</p>			

<p><b>Corps of Engineer Wetland Delineation</b> – Any wetlands on the site should be identified, surveyed, recorded, and approved by the Corps of Engineers. VEDP is a source of national wetland inventory data. This national wetlands inventory data will require additional survey work to locate and map the wetlands on site.</p>			
<p><b>Storm Water Management Plan</b> – A storm water management plan meeting local and State requirements should be prepared for the site, parcel, or development.</p>			
<p><b>Archaeological Site Assessment</b> – If potential archaeological resources have been identified on the site, a thorough archaeological survey of the sites should be conducted by a qualified archaeological team or the area with these resources excluded from the developable area.</p>			
<p><b>Historic and Archaeological Treatment Plan</b> – If archaeological or historical features have been identified on the site, a treatment plan must be prepared and adopted by the owner of the site. The treatment plan should identify the specific methods that will be used to preserve the archaeological or historic features found on the site. The Department of Historic Resources is a potential source of data on the location of known historic and archaeological sites on the property.</p>			
<p><b>Rare and Endangered Species Management Plan</b> – If rare or endangered species have been identified on the site as a result of a Phase 1 Environmental or other study, a management plan should be prepared and adopted by the owner of the site. The management plan should outline how development will occur on the site without posing a threat to the rare or endangered species identified. DCR and DGIF are potential sources of the initial data on the possible locations of rare and endangered species.</p>			
<p><b>Geotechnical Study</b> – An analysis of the suitability of the soils and geology for industrial usage should be available on the site showing at a minimum the load bearing capacity and water table. Any unusual geologic formations should be identified.</p>			
<p><b>Regional Map</b> – A map showing the industrial park in relation to major multi-state markets including major transportation routes serving those markets should be available.</p>			
<p><b>Area Map</b> – A map of the region using the labor market radius is helpful showing the site, major roads, rail, other transportation, etc.</p>			
<p><b>Marketing Material</b> – A color specification sheet with a photograph of the site should be available to distribute to prospective businesses wishing to locate in the industrial park.</p>			



## **“Right Now” Sites**

### **Light Manufacturing Sites**

#### **Site Profile**

- **Description**  
Light manufacturing sites are designed to accommodate a representative light manufacturing facility that would employ 25 to 250 people operating two or more shifts five to seven days a week. The production facility typically ranges between 30,000 sq. ft. and 150,000 sq. ft. on a site of approximately 10 acres. Capital investment ranges between \$3M and \$20M based on the type of production equipment and machinery included. Sites vary due to many market factors that are related to the specific requirements of the business. Often these sites are used for other types of business development besides manufacturing, such as distribution, business services, etc.
  
- **Minimum site acreage**  
The minimum land required is 5 developable acres.
  
- **Topography**  
Sites should be level or slightly sloping with little elevation change (less than 4% grade) and outside the 100-year FEMA-designated flood plain.
  
- **Utility Requirements**  
**Electricity**
  - 5,500 Kilowatt (kW) peak demand
  - 3,000,000 Kilowatt Hour (kWh) / month usage
  - 75% demand factor
  - Reliability is critical  
**Natural Gas**
  - 50,000 therms or 5,000 mcf/month  
**Water**
  - 20,000 to 50,000 gallons/day process water
  - 4,000 gallons/day potable
  - 6 in. water line minimum  
**Sewer**
  - 20,000 to 40,000 gallons/day
  - Discharge characteristics depend on the nature of the processes
  - 8 in. sewer line

#### Telecommunications

- T-1 service minimum

#### Transportation Requirements

Direct access to an interstate, limited-access or four-lane U.S. highway via a two-lane truck route is required. Highly congested routes or routes through residential areas should be avoided.

#### Labor/Workforce

The typical labor force at a light manufacturing facility is 25 to 250 employees, with tiered wage rates. The average wage rate is \$12 per hour with a 28% benefit package. Entry level employees and unskilled workers generally have no manufacturing experience with only a high school education. Production workers and semi-skilled workers often include workers with an Associates degree or two to three year's experience in a manufacturing-related field or experience in working in a specialized manufacturing operation.

#### Support Facilities

Proximity to support services including general business services, janitorial services, couriers, temporary staffing agencies and supply warehouses are preferred within the community.

#### Site Development Issues

The site should be square or slightly rectangular with no out parcels affecting its utilization.

#### Site Ownership/Lease

Businesses typically prefer to own the site and facilities but the option for a lease is desirable. The ability to provide financing tailored to the requirements of the business is often necessary.

#### Surrounding Land Uses

Light manufacturing or industrial uses should be located in areas zoned for like or similar uses. Residential, office or retail uses should be buffered from light industrial sites. Location of landfills, sewage treatment plants, etc. close to light industrial uses should be avoided.

#### Project Profile

Capital Investment: \$6,500,000

- Land and Building - \$1,500,000
- Machinery and Equipment - \$5,000,000

Building Size: 60,000 square feet



Site Requirement:

- 5 developable acres
- Building pad – 30,000 square feet

Employees: 60 total

- Office and Salaried Employees – 10
- Production Employees – 50
- Relocated Employees – 2

Wages:

- Average Salaried Employee - \$40,000 + 35% benefit package
- Average Production Employee - \$12.00 / hour + 28% benefit package

Operations:

- Shifts/Day – 2
- Days/Week – 5

Accessibility:

Separate access to the site for employee and truck traffic is preferred.

Rail:

A rail siding is not required.

Commercial Air Service:

The site should be within one hour of an airport with commercial air service.

Traffic Estimates:

- Trucks – 15 trips/day
- Vehicles – 120 trips/day

**Musts and Wants**

Musts

- 5 developable acres minimum
- 20,000 gallons/day water supply with fire protection
- 6 in. water line
- 20,000 gallons/day sewer treatment capacity
- 8 in. sewer line
- 3 phase electricity – 5,500kW
- Within 20 miles of an interstate or four-lane divided highway
- Direct access from two-lane highway with capacity to handle truck traffic
- Zoned for light manufacturing

### Wants

- Competitive Recurring Costs
- Quality/Trainable Labor
- Quality Transportation Access
- Competitive Investment Costs
- Favorable Site Characteristics
- Availability of Recruitment and Training Resources
- No permit requirements more stringent than DEQ, Health Dept. or EPA water, sewer or air guidelines
- Located outside an EPA air quality Non-attainment Area
- Rail Access
- Ability to attract and retain professional and technical employees



## **“Right Now” Sites**

### **General Manufacturing Sites**

#### **Site Profile**

- **Description**  
General manufacturing sites are designed to accommodate a representative manufacturing facility that would employ 150 to 600 people operating two or more shifts five to seven days a week. Often these facilities operate 24 hours a day, seven days a week. The production facility typically ranges between 60,000 sq. ft. and 500,000 sq. ft. on a minimum site of approximately 25 acres. Capital investment ranges between \$6M and \$100M based on the type of production equipment and machinery included. Sites vary due to many market factors that are related to the specific requirements of the business.
  
- **Minimum site acreage**  
The minimum land required is 10 developable acres.
  
- **Topography**  
Sites should be level with little or no elevation change (less than 4% grade) and outside the 100-year FEMA-designated flood plain.
  
- **Utility Requirements**
  - Electricity**
    - 10,000 Kilowatt (kW) peak demand
    - 8,000,000 Kilowatt Hour (kWh) / month usage
    - 75% demand factor
    - Reliability is critical
  
  - Natural Gas**
    - 500,000 therms or 50,000 mcf/month
  
  - Water**
    - 100,000 to 500,000 gallons/day process water
    - 10,000 gallons/day potable
    - 8 in. water line
  
  - Sewer**
    - 100,000 to 400,000 gallons/day
    - Discharge characteristics depend on the nature of the processes
    - 8 in. sewer line
  
  - Solid Waste**
    - 1,000 tons / month or two semi-trucks full/day

#### Telecommunications

- T-1 line and fiber optic cable desirable

#### Transportation Requirements

Within five miles of an interstate, limited-access or four-lane U.S. highway via a truck route is required. Highly congested routes or routes through residential areas should be avoided. Rail access is highly desirable.

Close proximity (within 90 minutes) to a hub or regional commercial airport is required.

#### Labor/Workforce

The labor at a typical general manufacturing facility is 150 to 600 employees, with tiered wage rates. The average wage rate for production workers is \$12 per hour with a 28% benefit package. Entry level employees and unskilled workers generally have no manufacturing experience, with only a high school education. Production workers and semi-skilled workers often include workers with an Associates degree or two to three years experience in a manufacturing-related field, or experience in working in a specialized manufacturing operation. Technology manufacturing requires a workforce with relatively high education, skill and training levels.

#### Support Facilities

Proximity to support services, including general business services, janitorial services, couriers, temporary staffing agencies, tool and dye shops, machine shops and supply warehouses is preferred within a 30-minute drive.

#### Site Development Issues

The site should be square or slightly rectangular with no out parcels affecting its utilization. Access to environmental information is important. Electrical supply, water, sewer, and solid waste are all important issues.

#### Site Ownership/Lease

Businesses typically prefer to own the site and facilities but the option for a lease is desirable. The ability to provide financing tailored to the requirements of the business is often necessary. Incentives are often an expected part of the financing package.

#### Surrounding Land Uses

General manufacturing or industrial uses should be located in areas zoned for like or similar uses. Residential, office or retail uses should be buffered from general industrial sites. Location of landfills, sewerage treatment plants, etc. close to general industrial uses should be avoided.

**Project Profile**

Capital Investment: \$26,000,000

- Land and Building - \$6,000,000
- Machinery and Equipment - \$20,000,000

Building Size: 60,000 square feet

Site Requirement:

- 10 developable acres
- Building pad – 60,000 square feet

Employees: 200 total

- Office and Salaried Employees – 30
- Production Employees – 170
- Relocated Employees – 5

Wages:

- Average Salaried Employee - \$50,000 + 35% benefit package
- Average Production Employee - \$12.00 / hour + 28% benefit package

Operations:

- Shifts/Day – 3
- Days/Week – 7

Accessibility:

Separate access to the site for employee and truck traffic is required.

Rail:

A rail siding is highly desirable but not required.

Commercial Air Service:

The site should be within a 90-minute drive of a hub or regional commercial airport.

Traffic Estimates:

- Trucks – 50 trips/day
- Vehicles – 400 trips/day

**Musts and Wants**

Musts

- 10 developable acres minimum
- 60,000 sq. ft. building pad
- 100,000 gallons/day water supply with fire protection



- 8 in. water line
- 100,000 gallons/day sewer treatment capacity
- 8 in. sewer line
- Electricity – 10,000kW
- T-1 line
- Within 5 miles of an interstate or four-lane divided highway
- Direct access from four-lane highway with capacity to handle truck traffic
- Zoned for manufacturing allowing outside storage

#### Wants

- Competitive Recurring Costs
- Quality/Trainable Labor
- Quality Transportation Access
- Competitive Investment Costs
- Favorable Site Characteristics
- Availability of Recruitment and Training Resources
- No permit requirements more stringent than DEQ, Health Dept. or EPA water, sewer or air guidelines
- Located outside an EPA air quality Non-attainment Area
- Rail Access
- Ability to attract and retain professional and technical employees



## **“Right Now” Sites**

### **Heavy Manufacturing Sites**

#### **Site Profile**

- **Description**

Heavy manufacturing sites are designed to accommodate a representative manufacturing facility that would employ 500 to 2,000 people operating 24 hours a day 350 days per year. The production facility typically exceeds 300,000 sq. ft. in one or more buildings on 50 acres or more. Capital investment ranges between \$50M and \$2B based on the type of production equipment and machinery included. Sites vary due to many market factors that are related to the specific requirements of the business.

- **Minimum site acreage**

The minimum land required is 25 contiguous developable acres.

- **Topography**

Sites should be level to gently rolling terrain with no major hills or valleys (generally less than 8% slope) and the vast majority of the site should be outside the 100-year FEMA-designated flood plain. The site should be free of any out parcels. The developable acreage should be square or slightly rectangular in configuration.

- **Utility Requirements**

**Electricity**

- 25,000 Kilowatt (kW) demand
- 13,500,000 Kilowatt Hour (kWh) / month usage
- Dual feed required

**Natural Gas**

- 1,500,000 therms or 1,500,000 mcf/month
- 900,000 therms or 90,000 mcf / month average

**Water**

- 600,000 gallons/day process water
- 20,000 gallons/day potable
- 12 in. water line

**Sewer**

- 450,000 gallons/day
- 1520 ppm BOD
- 172 ppm TSS
- 12 in. sewer line

#### Solid Waste

- 1,000 tons / month or two semi-trucks full/day

#### Telecommunications

- T-1 line and fiber optic cable desirable

#### Transportation Requirements

Within one mile of an interstate or four-lane U.S. highway via a truck route is required. Highly congested routes or routes through residential areas should be avoided. Rail access is highly desirable.

Close proximity (within 90 minutes maximum) to a hub or regional commercial airport is required.

#### Labor/Workforce

The labor at a typical general manufacturing facility is 600 employees, with tiered wage rates – 100 office employees and 500 production workers. The average wage rate for production workers is \$15 per hour with a 28% benefit package. Entry level employees and unskilled workers generally have no manufacturing experience with only a high school education. Production workers and semi-skilled workers often include workers with an Associates degree or two to three years experience in a manufacturing-related field or experience working in a specialized manufacturing operation. Technology-based manufacturing requires a workforce with relatively high education, flexibility, adaptability, skill and training levels.

#### Support Facilities

Proximity (within 30 minutes drive time) to support services including general business services, janitorial services, couriers, temporary staffing agencies, tool and dye shops, machine shops and supply warehouses are preferred.

#### Site Development Issues

The site should be square or slightly rectangular with no out parcels affecting its utilization. Access to professionally-documented environmental information is essential. Electrical supply, water, sewer, and solid waste are also important issues.

#### Site Ownership/Lease

Businesses typically prefer to own the site and facilities but the option for a lease is desirable. The ability to provide financing tailored to the requirements of the business is often necessary. Incentives are usually an expected part of the financing package.

#### Surrounding Land Uses

General manufacturing or industrial uses should be located in areas zoned for like or similar uses. Residential, office or retail uses should be buffered from



general industrial sites. Location of landfills, sewerage treatment plants, etc., close to heavy industrial uses should be avoided.

### **Project Profile**

Capital Investment: \$150,000,000

- Land and Building - \$20,000,000
- Machinery and Equipment - \$130,000,000

Building Size: 300,000 square feet

Site Requirement:

- 25 developable acres
- Building pad – 600,000 square feet

Employees: 600 total

- Office and Salaried Employees – 100
- Production Employees – 500
- Relocated Employees – 5

Wages:

- Average Salaried Employee - \$50,000 + 35% benefit package
- Average Production Employee - \$15.00 / hour + 28% benefit package

Operations:

- Shifts/Day – 3
- Days/Week – 7

Accessibility:

Separate access to the site for employee and truck traffic is required. Dual entrances may be needed.

Rail:

A rail siding is highly desirable.

Commercial Air Service:

The site should be within 90 minutes of a hub or regional commercial airport.

Traffic Estimates:

- Trucks – 140 trips/day
- Vehicles – 1,200 trips/day

## **Musts and Wants**

### **Musts**

- 25 developable contiguous acres minimum
- 600,000 gallons/day water supply with fire protection within 180 days
- 12 in. water line
- 450,000 gallons/day sewer treatment capacity within 180 days
- 12 in. sewer line
- Electricity – 25,000kW
- Natural Gas
- T-1 Line
- Within 1 mile of an interstate or four-lane U.S. highway
- Direct access to a four-lane highway via a truck route
- Zoned for heavy manufacturing allowing outside storage

### **Wants**

- Competitive Recurring Costs
- Quality/Trainable Labor
- Quality Transportation Access
- Competitive Investment Costs
- Favorable Site Characteristics
- Availability of Recruitment and Training Resources
- No permit requirements more stringent than DEQ, Health Dept. or EPA water, sewer or air guidelines
- Located outside an EPA air quality Non-attainment Area
- Rail Access
- Ability to attract and retain professional and technical employees



## **“Right Now” Sites**

### **Mega Sites**

#### **Site Profile**

- **Description**

Mega sites are designed to accommodate a very large manufacturing facility that would employ 500 to 1,000 people operating three shifts five to seven days a week. Often these facilities operate 24 hours a day, seven days a week. The production facility typically ranges between 500,000 sq. ft. and 1,000,000 sq. ft. on a minimum site of approximately 200 acres with additional acreage required for buffers and unique topographic features. The total minimum acreage required is 500 acres. Capital investment ranges between \$100M and \$1B based on the type of production equipment and machinery included. Sites vary due to many market factors that are related to the specific requirements of the business.
- **Market Analysis**

Mega projects are very large employers and investment projects that are generally manufacturing but could also include energy production facilities. Automotive manufacturers, paper production, chemical production, electric generation, and semiconductor manufacturers are all examples of this type of facility. There are only a few of these facilities constructed annually. These facilities require long siting and location timeframes because of the level of investment and complexity of the approvals required. Often there is fierce competition for the location of these facilities among states. Those localities that have the land assembled and the permit work complete will have a competitive advantage.
- **Minimum site acreage**

The minimum land required is 500 acres. Sites often range from 500 to 1,500 acres. The actual buildable area averages 200 acres.
- **Topography**

The Site can be hilly but should not have any major physical barriers that divide the property or prohibit its use. The majority of the site should be outside the 100-year FEMA-designated flood plain. The 200-acre buildable area should be gently rolling.
- **Utility Requirements**
  - Electricity**
    - Transmission lines within 3 miles of the site with no right-of-way issues
  - Natural Gas**
    - Major transmission line within 3 miles of the site with no right-of-way issues

#### Water

- 250,000 to 1,000,000 gallons/day process water within 3 miles of the site

#### Sewer

- 250,000 to 1,000,000 gallons/day, available or planned, within 3 miles of the site
- Discharge characteristics depend on the nature of the processes

#### Solid Waste

- 1,000 tons / month or two semi-trucks full/day

#### Telecommunications

- T-1 line or fiber optic cable at the access road

#### Transportation Requirements

Within 5 miles of an interstate or four-lane U.S. highway with two access points via a truck route required. Highly congested routes or routes through residential areas should be avoided.

Railroad line within 1 mile of the site.

Close proximity (within 40 minutes) to regional commercial airport offering multiple direct flights to a hub airport is required.

#### Labor/Workforce

The labor at a typical Mega facility is 500 to 1,000 employees, with tiered wage rates. The average wage rate for production workers is \$12 per hour with a 28% benefit package. Entry level employees and unskilled workers generally have no manufacturing experience with only a high school education. Production workers and semi-skilled workers often include workers with an Associates degree or two to three years experience in a manufacturing-related field or experience in working in a specialized manufacturing operation. Technology manufacturing requires a workforce with relatively high education, skill and training levels.

#### Support Facilities

Proximity to support services including general business services, janitorial services, couriers, temporary staffing agencies, tool and dye shops, machine shops and supply warehouses is preferred within a 30-minute drive.

#### Site Development Issues

The site should be square or slightly rectangular with no out parcels affecting its utilization. Access to environmental information is important. Electrical supply, water, sewer, and solid waste are important issues.



#### Site Ownership/Lease

The site should have a limited number of willing owners. Businesses typically prefer to own the site and facilities. The ability to provide incentives tailored to the requirements of the business is often an expected part of the financing package.

#### Surrounding Land Uses

Mega sites should be zoned rural or agricultural and designated for intensive development in the comprehensive plan. The site should not be adjacent to quarries/blasting operations, major cooling towers or sources of particulate emissions. Residential areas should have a minimum 1,500 ft. buffer from the site. The site should be located in an EPA designated air pollution attainment area.

#### Project Profile

Capital Investment: \$500,000,000

- Land and Building - \$200,000,000
- Machinery and Equipment - \$300,000,000

Building Size: 2,000,000 square feet

Site Requirement: 500 acres

- 200 acres developable
- Building site – 2,000,000 square feet

Employees: 1000 total

- Office and Salaried Employees – 200
- Production Employees – 800
- Relocated Employees – 20

Wages:

- Average Salaried Employee - \$50,000 + 35% benefit package
- Average Production Employee - \$12.00 / hour + 28% benefit package

Operations:

- Shifts/Day – 3
- Days/Week – 7

Accessibility:

Separate access to the site for employee and truck traffic is required.

**Rail:**

A rail siding must be possible and the rail line must be within one mile of the site.

**Commercial Air Service:**

The site should be within 40 miles of a regional commercial airport with multiple direct flights to a hub.

**Traffic Estimates:**

- Trucks – 300 trips/day
- Vehicles – 2,000 trips/day

**Musts and Wants**

**Musts**

- 500 acres with 200 acres developable minimum
- 200-acre buildable area
- 250,000 gallons/day water supply within 3 miles of the site
- 250,000 gallons/day sewer treatment capacity within 3 miles of the site
- Electricity – 3 miles from a main transmission line
- Natural Gas – 3 miles from a major transmission line
- T-1 line or fiber optic cable at the access road
- Within 5 miles of an interstate or four-lane divided highway
- Direct access from four-lane highway with capacity to handle truck traffic
- Within 1 mile of a rail line with a rail spur possible
- Zoned agricultural or rural

**Wants**

- Competitive Recurring Costs
- Quality/Trainable Labor
- Quality Transportation Access
- Competitive Investment Costs
- Favorable Site Characteristics
- Availability of Recruitment and Training Resources
- No permit requirements more stringent than DEQ, Health Dept. or EPA water, sewer or air guidelines
- Located outside an EPA air quality Non-attainment Area
- Ability to attract and retain professional and technical employees



## **“Right Now” Sites**

### **Business/Industrial Parks**

#### **Site Profile**

- **Description**

Business and industrial parks provide a variety of sites for manufacturing, office, warehousing, distribution, research or commercial development. The purpose of these business and industrial parks is to provide companies with a selection of sites that are fully ready for build-out with few, if any, permits required. These parks try to concentrate similar or like uses in the same general location to provide more efficient and compatible land use patterns. The parks provide central water, sewer, roads, electricity, and other services (rail, gas, advanced telecommunications, etc.) that are required to meet the requirements of the target market of the park. Sites vary from 5 to 50 acres depending on the need or the target market of the park. The entire park ranges from 50 to over 1,000 acres in size. A shell building is often constructed in the park as an added attraction for business prospects.
  
- **Minimum Site Acreage**

The minimum site acreage is 50 developable acres subdivided into sites greater than 5 acres. The smallest recommended lot is 10 acres.
  
- **Topography**

The topography of the park can be rolling or gently sloped (generally less than 8%) provided the individual sites are generally level and outside the 100-year FEMA flood plain designation.
  
- **Utility Requirements - Minimum Electricity**
  - 14,000 Kilowatt (kW) demand
  - 6,000,000 Kilowatt Hour (kWh) / month usage
  - Dual feed required
  
- **Natural Gas**
  - 75,000 therms or 75,000 mcf/month
  - Not required but highly desirable
  
- **Water**
  - 200,000 gallons/day
  - 8 in. water line



#### Sewer

- 200,000 gallons/day
- 8 in. sewer line

#### Telecommunications

- T-1 line and fiber optic cable

#### Transportation Requirements

Direct access (less than a mile) to an interstate, limited-access or four-lane U.S. highway via a truck route is required. Highly congested routes or routes through residential areas should be avoided. Rail access is desirable. The site should be located within 90 miles of either a commercial hub airport or an airport within one leg of a hub.

#### Labor/Workforce

If 100 people were employed on 5 ten-acre lots the total employment would be around 500 people. Approximately 100 workers would be salaried, exempt employees with the remainder non-exempt, hourly employees. These numbers could vary greatly depending on the character of the industries and the amount of developable acreage. The average wage rate is \$12 per hour with a 28% benefit package. Entry level employees and unskilled workers generally have no manufacturing experience with only a high school education. Production workers and semi-skilled workers often include workers with an Associates degree or two to three years experience in a manufacturing-related field or experience working in a specialized manufacturing operation.

#### Support Facilities

Proximity to support services including general business services, janitorial services, couriers, temporary staffing agencies and supply warehouses is preferred.

#### Site Development Issues

The park should be square or rectangular with no out parcels affecting its utilization.

#### Site Ownership/Lease

Businesses typically prefer to own their individual site and facilities but the option for a lease/purchase is desirable. The ability to provide financing tailored to the requirements of the business is often necessary.

#### Surrounding Land Uses

Industrial parks should be located in areas zoned for like or similar uses. Residential, office or retail uses should be buffered from the individual industrial sites. Location of landfills, sewerage treatment plants, etc. close to industrial parks should be avoided.



## **Project Profile**

Capital Investment: \$50,000,000

- Land and Building - \$25,000,000
- Machinery and Equipment - \$25,000,000

Building Size:

- Per building - 50,000 square feet
- Total Park Build-Out - 500,000 square feet

Site Requirement:

- 50 developable acres, subdividable into 5 lots of 10 acres or more
- Total building footprint – 500,000 square feet

Employees: 500 total

- Office and Salaried Employees – 100
- Production Employees – 400
- Relocated Employees – 10

Wages:

- Average Salaried Employee - \$40,000 + 35% benefit package
- Average Production Employee - \$12.00 / hour + 28% benefit package

Operations:

- Shifts/Day – 2
- Days/Week – 5

Accessibility:

Industrial access road required to the park and to the individual sites within the park.

Rail:

A rail siding is desirable but not required.

Commercial Air Service:

The park should be located within 90 minutes of an airport with commercial air service.

Traffic Estimates:

- Trucks – 200 trips/day
- Vehicles – 1,000 trips/day

## **Musts and Wants**

### **Musts**

- 50 developable acres minimum within the park
- 5-acre site available in the park
- 200,000 gallons/day water supply with fire protection
- 8 in. water line
- 200,000 gallons/day sewer treatment capacity
- 8 in. sewer line
- Electricity – 14,000 kW
- T-1 line
- Within 10 miles of an interstate or four-lane highway
- Direct access from four-lane highway via a truck route
- Within 90 miles of a commercial airport
- Zoned for manufacturing and other business uses

### **Wants**

- Competitive Recurring Costs
- Quality/Trainable Labor
- Quality Transportation Access
- Competitive Investment Costs
- Favorable Site Characteristics
- Availability of Recruitment and Training Resources
- No permit requirements more stringent than DEQ, Health Dept. or EPA water, sewer or air guidelines
- Located outside an EPA air quality Non-attainment Area
- Rail Access
- Ability to attract and retain professional and technical employees



## **“Right Now” Sites**

### **Office Sites**

#### **Site Profile**

- **Description**

Office parks provide space for various non-manufacturing uses. They often house insurance operations, call centers, credit card processing, back-office operations for corporations, customer support centers, etc. Office parks typically entail an investment of \$50 million in equipment and \$30 million in real estate.

- **Market Analysis**

Back office operations, call centers and data processing have accounted for 80% of the large office contract leases for the past several years.

With unemployment at historically low levels, especially in metropolitan areas, smaller communities are becoming attractive locations for back-office operations. Labor quality and availability of telecommunications infrastructure are the most important site factors. Smaller communities benefit from increased employment opportunities as agriculture, mining, and natural resource industries shrink. The types of companies that typically locate in office parks do not require the extensive transportation and distribution networks of urban or suburban areas.

- **Minimum site acreage**

The minimum 5 acre site is required to accommodate prospective office building(s) with sufficient parking.

- **Topography**

There are no special topographical requirements or limitations, although flat and level parcels are less costly to develop.

- **Utility Requirements**

**Electricity**

- 1,500 Kilowatt (kW) peak demand
- 810,000 Kilowatt Hour (kWh) / month usage
- Dual service required
- Reliability is critical

**Natural Gas**

- 75,000 therms or 7,500 mcf/month

**Water**

- 15,000 gallons/day
- 6 in. water line

#### Sewer

- 15,000 gallons/day
- 8 in. sewer line

#### Telecommunications

- Access to multiple T-1 lines required (fiber optic cable on site)
- Fiber sonet ring infrastructure
- Diverse, redundant, digital electronic Central Offices /Points of Presence (PoPs)

#### Transportation Requirements

The site should be within 60 miles of a medium-to-large sized airport for easy access for senior management, corporate officers and air freight for specialty computer parts. Communities served by mass transit have an advantage.

#### Labor/Workforce

The typical back-office operation employs 1,000 people. Approximately 25 will be relocated from existing operations. Most new employees (950 - 975) will require technical skills and be hired over three to four years.

Quality of life issues are an important part of the recruiting/retention efforts, and locations near colleges and vocational schools with technical training are an advantage.

#### Support Facilities

The presence and quality of vendor support is critical.

#### Site Development Issues

The site should accommodate 600 parking spaces and will need to offer flexibility in configuration. Initially, a command center for the operation will occupy 15,000 sq. ft.; the bulk of the remaining space will be office space. The building should be designed to meet future technology changes.

#### Site Ownership/Lease

Leases are typically preferred. Computers and telephones which are the backbone of many office park operations make leasing the favored option.

#### Surrounding Land Uses

An office park should be located away from rail lines, flight paths and retail/commuter congestion to the extent practical.



## **Project Profile**

Capital Investment: \$80,000,000

- Land and Building - \$30,000,000
- Machinery and Equipment - \$50,000,000

Building Size: 200,000 square feet

Site Requirement: 5 acres

- Building pad – 50,000 square feet

Employees: 1,000 total

- Office and Salaried Employees – 50
- Production Employees – 950
- Relocated Employees – 25

Wages:

- Average Salaried Employee - \$40,000 + 35% benefit package
- Average Production Employee - \$12.00 / hour + 25% benefit package

Operations:

- Shifts/Day – 3
- Days/Week – 7

Accessibility:

Dual site access is preferred.

Commercial Air Service:

The site should be within 90 minutes of a medium to large commercial airport.

Traffic Estimates:

- Trucks – 15 trips/day
- Vehicles – 1,000 trips/day

## **Musts and Wants**

### **Musts**

- 5 developable acres minimum
- 15,000 gallons/day water supply with fire protection
- 6 in. water line
- 15,000 gallons/day sewer treatment capacity
- 8 in. sewer line
- Electricity – 1,500 kW dual service
- Served by multiple T-1 lines or sonet ring (fiber on site)
- Zoned for office park usage

### **Wants**

- Access to quality telecommunications services
- Quality/Trainable Labor
- Competitive Recurring Costs
- Quality Transportation Access
- Availability of urban or suburban services – shopping, restaurants, personal services, day care, etc.
- Competitive Investment Costs
- Favorable Site Characteristics
- Availability of Recruitment and Training Resources
- Ability to attract and retain professional and technical employees



## **“Right Now” Sites**

### **Research and Development**

#### **Site Profile**

- **Description**  
The configuration of research and development facilities varies by industry type. However, a typical facility is a 30,000 sq. ft. stand-alone building with a 25-foot clear ceiling situated on five acres of land. For such a facility, a typical total investment is \$32 million with \$30 million in equipment and \$2 million in real estate.
- **Market Analysis**  
Research and development parks aid companies in becoming more competitive because these parks create a critical mass for innovation and scientific expertise that in turn acts as a magnet for manufacturers requiring such information and supporting services. For industry, the benefits of an area with high research and development concentration are twofold: consolidation of highly valuable resources, and opportunities for knowledge transfer and research collaboration.

With increased emphasis on technology, companies are increasing research and development investment. Therefore, space is increasingly in short supply. Non-technology companies also occupy research and development space because it is generally less expensive than traditional office space.

- **Minimum site acreage**  
The desired site acreage is 5 acres
- **Topography**  
The site topography should be flat or gently rolling in order to minimize site preparation costs.
- **Utility Requirements**
  - Electricity**
    - 600 Kilowatt (kW) peak demand
    - 324,000 Kilowatt Hour (kWh) / month usage
    - Reliability is critical
  - Natural Gas**
    - 4,000 therms or 400 mcf/month
  - Water**
    - 2,500 gallons/day
    - 6 in. water line

#### Sewer

- 2,500 gallons/day
- 8 in. sewer line

#### Telecommunications

- T-1 line or fiber optic cable minimum

#### Transportation Requirements

There are no significant transportation requirements for research and development.

#### Labor/Workforce

Typical research and development facilities employ 50 people; 10 at management level with average salaries of \$80,000 per year, 30 researchers with average salaries of \$60,000 per year and 10 maintenance personnel earning \$10 per hour.

#### Support Facilities

Three main support factors are required: proximity to other research and development facilities, presence on a research university and presence of technical equipment support services.

#### Site Development Issues

Flexibility is the key to the design of research and development space since the technology varies by industry and most buildings are built-to-suit. In the case of a speculative building, research and development should resemble office space with a few alterations. The space should be completely built-out, air-conditioned and heated throughout, have high-density parking, lower ceiling heights than manufacturing but higher than general office space and similar to general manufacturing by having roll-up delivery doors.

#### Site Ownership/Lease

The significant investment required to build research and development facilities results in sites typically being owned.

#### Surrounding Land Uses

An ideal location is within or near an existing research and development park.

#### Project Profile

Capital Investment: \$32,000,000

- Land and Building - \$2,000,000
- Machinery and Equipment - \$30,000,000



Building Size: 30,000 square feet

Site Requirement:

- 5 developable acres
- Building pad – 30,000 square feet

Employees: 50 total

- Management – 10
- Researchers – 30
- Maintenance - 10

Wages:

- Average Salary - \$60,000 + 40% benefit package

Operations:

- Shifts/Day – 2
- Days/Week – 5

Accessibility:

No special requirements

Commercial Air Service:

The site should be within 90 minutes of a commercial airport.

Traffic Estimates:

- Trucks – 10 trips/day
- Vehicles – 60 trips/day

### **Musts and Wants**

Musts

- 5 developable acres
- 2,500 gallons/day water supply with fire protection
- 6 in. water line
- 2,500 gallons/day sewer treatment capacity
- 8 in sewer line
- Electricity – 600 kW dual service
- Served by T-1 line or fiber optic cable
- Within 60 miles of a university research center
- Zoned for research and development

### Wants

- Access to quality telecommunications services
- Quality/Trainable Labor
- Quality Transportation Access
- Competitive Investment Costs
- Favorable Site Characteristics
- Availability of Recruitment and Training Resources
- No local permits more stringent than EPA Guidelines for air and water permitting
- Located outside of an EPA-designated Ozone Nonattainment Area
- Ability to attract and retain professional and technical employees



## **“Right Now” Sites**

### **Warehouse/Distribution Sites**

#### **Site Profile**

- **Description**  
Warehouse and distribution sites are typically large buildings from 100,000 to 1,500,000 square feet designed to allow expansion. At a minimum, they are outfitted with 30-ft. ceilings, 40 ft. by 440 ft. bays and 20 docks for trucks. Although employment depends upon the degree of automation in the facility, between 50 and 1,000 people typically work in these facilities. Total investment is approximately \$55 million including land, building, machinery and inventory.
  
- **Market Analysis**  
The importance of warehouse and distribution facilities is growing as businesses stock smaller, “just-in-time” inventories and as e-businesses flourish. Companies are seeking large regional hubs to reduce transportation costs.
  
- **Minimum site acreage**  
The minimum lot size required is 25 developable acres.
  
- **Topography**  
Sites should be level with little or no elevation change (less than 4% slope) and outside the 100-year FEMA-designated flood plain. Ideally, a site should be at road grade elevation.
  
- **Utility Requirements**
  - Electricity**
    - 2,500 Kilowatt (kW) peak demand
    - 1,200,000 Kilowatt Hour (kWh) / month usage
  
  - Natural Gas**
    - 4,000 therms or 400 mcf/month
  
  - Water**
    - 6,000 gallons/day potable
    - 6 in. water line
  
  - Sewer**
    - 6,000 gallons/day
    - 8 in. sewer line
  
  - Telecommunications**
    - T-1 and fiber optic cable desirable

### **Transportation Requirements**

Direct access to an interstate is critical. A site must be within 5 miles, via truck route, of an interstate, limited-access or four-lane U.S. highway. Access routes must be designated for 53 ft. trucks. Highly congested routes or routes through residential areas should be avoided. Rail access is desirable.

### **Labor/Workforce**

Large warehouse or distribution centers typically employ 300 people, including 34 clerical workers, 240 materials handlers and 26 managers. Facilities operate three shifts per day, five days a week. The average wage rate is \$9 per hour with a 25% benefit package.

### **Support Facilities**

Proximity to trucking companies, truck mechanics/service providers, janitorial services, couriers, temporary staffing agencies and office/industrial supply warehouses is preferred.

### **Site Development Issues**

The site should be square or slightly rectangular with no out parcels affecting its utilization or traffic flows.

### **Site Ownership/Lease**

Businesses typically prefer to own the site and facilities.

### **Surrounding Land Uses**

Because of the high volume of truck traffic and continuous operations, surrounding land uses must allow 24-hour operations without noise level restrictions.

### **Project Profile**

Capital Investment: \$55,000,000

- Land and Building - \$30,000,000
- Machinery and Equipment - \$15,000,000
- Inventory - \$10,000,000

Building Size: 800,000 square feet

Site Requirement: 25 acres

- Building pad – 800,000 square feet



Employees: 300 total

- Office and Salaried Employees – 50
- Production Employees – 250
- Relocated Employees – 10

Wages:

- Average Salaried Employee - \$40,000 + 40% benefit package
- Average Production Employee - \$9.00 / hour + 25% benefit package

Operations:

- Shifts/Day – 3
- Days/Week – 5

Accessibility:

Access is critical to the success of the site. Sites should be located either at a signaled intersection of two roads to provide dual access, or at a location with ample turn lanes for trucks. Separate access to the site for employee and truck traffic is preferred.

Rail:

A rail siding is desirable but not required.

Traffic Estimates:

- Trucks – 100 trips/day
- Vehicles – 610 trips/day

## **Musts and Wants**

**Musts**

- 25 developable acres minimum
- 6,000 gallons/day water supply with fire protection
- 6 in. water line
- 6,000 gallons/day sewer treatment capacity
- 8 in. sewer line
- 3 phase electricity – 2,500kW
- Within 5 miles of an interstate or four-lane divided highway
- Within 1 mile of a four-lane highway with capacity to handle heavy volume truck traffic
- Zoned for warehouse/distribution

### Wants

- Quality Transportation Access
- Favorable Site Characteristics
- Quality/Trainable Labor
- Competitive Recurring Costs
- Rail Access
- Competitive Investment Costs
- Ability to attract and retain professional and technical employees



## “Right Now” Sites



### Site Profile

- **Description**  
Motorsports sites are designed to accommodate a representative motorsports facility that would employ 5 to 250 people operating two or more shifts five to seven days a week. The production facility typically ranges between 10,000 sq. ft. and 150,000 sq. ft. on a site of approximately 5 acres. Capital investment ranges between \$1M and \$10M based on the type of production equipment and machinery included. Sites vary due to many market factors that are related to the specific requirements of the business.
- **Minimum site acreage**  
The minimum land required is 5 developable acres.
- **Topography**  
Sites should be level or slightly sloping with little elevation change (less than 4% grade) and outside the 100-year FEMA-designated flood plain.
- **Utility Requirements**  
**Electricity**
  - 5,500 Kilowatt (kW) peak demand
  - 3,000,000 Kilowatt Hour (kWh) / month usage
  - 75% demand factor
  - Reliability is critical**Natural Gas**
  - 50,000 therms or 5,000 mcf/month**Water**
  - 20,000 to 50,000 gallons/day process water
  - 4,000 gallons/day potable
  - 6 in. water line minimum**Sewer**
  - 20,000 to 40,000 gallons/day
  - Discharge characteristics depend on the nature of the processes

- 8 in. sewer line

#### Telecommunications

- T-1 service minimum

#### Transportation Requirements

Direct access to an interstate, limited-access or four-lane U.S. highway via a two-lane truck route is required. Highly congested routes or routes through residential areas should be avoided.

#### Labor/Workforce

The typical labor force at a motorsports facility is 5 to 250 employees, with tiered wage rates. The average wage rate exceeds \$15 per hour with a 28% benefit package. Entry level employees and unskilled workers generally have some motorsports experience with only a high school education. Production workers and semi-skilled workers often include workers with an Associates degree or college degree with two to three year's experience in a motorsports-related field or experience in working in a specialized motorsports operation.

#### Support Facilities

Proximity to support services including general business services, janitorial services, couriers, temporary staffing agencies and supply warehouses are preferred within the community.

#### Site Development Issues

The site should be square or slightly rectangular with no out parcels affecting its utilization.

#### Site Ownership/Lease

Businesses typically prefer to own the site and facilities but the option for a lease is desirable. The ability to provide financing tailored to the requirements of the business is often necessary.

#### Surrounding Land Uses

Motorsports or light manufacturing should be located in areas zoned for like or similar uses. Residential, office or retail uses should be buffered from motorsports sites. Location of landfills, sewage treatment plants, etc. close to motorsports uses should be avoided.



## **Project Profile**

Capital Investment: \$6,500,000

- Land and Building - \$1,500,000
- Machinery and Equipment - \$5,000,000

Building Size: 30,000 square feet

Site Requirement:

- 5 developable acres
- Building pad – 10,000 square feet

Employees: 30 total

- Office and Salaried Employees – 5
- Production Employees – 25
- Relocated Employees – 2

Wages:

- Average Salaried Employee - \$50,000 + 35% benefit package
- Average Production Employee - \$15.00 / hour + 28% benefit package

Operations:

- Shifts/Day – 2
- Days/Week – 5

Accessibility:

Separate access to the site for employee and truck traffic is preferred.

Rail:

A rail siding is not required.

Commercial Air Service:

The site should be within one hour of an airport with commercial air service.

Traffic Estimates:

- Trucks – 10 trips/day
- Vehicles – 60 trips/day

## **Musts and Wants**

### **Musts**

- 5 developable acres minimum
- 20,000 gallons/day water supply with fire protection
- 6 in. water line
- 20,000 gallons/day sewer treatment capacity
- 8 in. sewer line
- 3 phase electricity – 5,500kW
- Within 20 miles of an interstate or four-lane divided highway
- Direct access from two-lane highway with capacity to handle truck traffic
- Zoned for light manufacturing
- Direct connection to a motorsports asset (race track, research facility, specialized training program or facility, ties to a motorsports organization, etc.)
- Marketing materials or program directly targeting the motorsports industry

### **Wants**

- Competitive Recurring Costs
- Quality/Trainable Labor
- Quality Transportation Access
- Competitive Investment Costs
- Favorable Site Characteristics
- Availability of Recruitment and Training Resources
- No permit requirements more stringent than DEQ, Health Dept. or EPA water, sewer or air guidelines
- Located outside an EPA air quality Non-attainment Area
- Rail Access
- Ability to attract and retain professional and technical employees



**VIRGINIA**  
Is For Business

Virginia Economic Development Partnership  
Community Resources Section  
P. O. Box 798  
901 East Byrd Street  
Richmond, Virginia 23218-0798  
(804) 371-8229