

## BICYCLE PROJECT APPLICATION FORM – FY 2007-2011 TIP Cover Sheet

**General Instructions:** This form is to be used to request federal Congestion Mitigation and Air Quality (CMAQ) funding available through the Maricopa Association of Governments for bicycle projects to be included in the FY 2007-2011 MAG Transportation Improvement Program. Currently funding is available only for **FY 2011**.

Separate application forms are available for pedestrian and transit projects. Also, a general application form is provided for projects that do not fit the categories listed. Freeway, street and rail transit projects will be programmed in a separate process, so please **DO NOT** use the general form to apply for funding for freeway, street and rail transit projects.

This application form includes:

- Part A: Project Description and TIP Listing Information. In Part A, the applicant provides the minimum information necessary to list a project in the TIP as required by applicable federal regulations and general descriptive information necessary for MAG staff and technical committees to evaluate the project.
- Part B: Project Congestion Management System (CMS) and Congestion Mitigation Air Quality (CMAQ) Data: In Part B, the applicant provides data necessary for MAG staff to calculate CMS and CMAQ scores for projects.
- Part C: MAG Technical Committee Additional Information. This section is used to collect information requested by the MAG technical committees.

**Deadlines and Transmittal Instructions:** This form should be completed and returned to MAG Offices by **5:00 p.m. September 2, 2005**. The mailing address and FAX number for the MAG offices is:

Maricopa Association of Governments  
302 North 1 st Avenue, Suite 300  
Phoenix, Arizona 85003  
FAX Number: (602) 254-6490

If you wish to e-mail this information, please send it to [state@mag.maricopa.gov](mailto:state@mag.maricopa.gov).

**Electronic Download Information:** A downloadable version of these forms in Microsoft Word is available on the MAG website at [www.mag.maricopa.gov](http://www.mag.maricopa.gov). If requested, MAG staff will also provide these forms via e-mail or FAX.

**MAG Contact Information:** If you have any questions, please contact Stephen Tate or Paul Ward at (602) 254-6300 or at [state@mag.maricopa.gov](mailto:state@mag.maricopa.gov).

**Agency Contact Information:** Please complete the following contact information for each project, so that we may contact you should we need additional information.

1. Name of the Agency Contact for the Project Request:	2. Telephone:
3. E-mail	4. Date:

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## BICYCLE PROJECT APPLICATION FORM – FY 2007-2011 TIP

### Part A: Project TIP Listing Information and Description

**General Instructions:** This form is to be used to request federal Surface Transportation Program (MAG STP) and Congestion Mitigation Air Quality (CMAQ) funding available through the Maricopa Association of Governments for Intelligent bicycle projects to be included in the FY 2007-2011 MAG Transportation Improvement Program. Currently funding is available only for **FY 2011**.

Separate application forms are available for pedestrian and transit projects. Also, a general application form is provided for projects that do not fit the categories listed. Freeway, street and rail transit projects will be programmed in a separate process, so please **DO NOT** use the general form to apply for funding for freeway, street and rail transit projects.

**Section One:** TIP Listing Information.

Please complete the following information for all projects. If the project is accepted for MAG federal funding, the project information provided in this section will appear in the TIP as provided by the applicant

1. Sponsoring Agency Name:	2. Year (Please check <u>only one</u> box):  <input type="checkbox"/> FY 2011
3. Project Location (The project limits if applicable):	
4. Type of Work (Description of the work to be performed):	
5. Amount of Federal Funds Requested (This amount cannot exceed 70.0 percent of the total cost of the project.):	6. Type of Federal Funds Requested (Please check <u>only one</u> box.):  <input type="checkbox"/> CMAQ
7. Amount of Local Funds to be Used (This amount cannot be less than 30.0 percent of the total cost of the project.):	8. Type of Local Funds to be Used: (Please check <u>only one</u> box.):  <input type="checkbox"/> HURF <input type="checkbox"/> Impact Fees <input type="checkbox"/> General Fund <input type="checkbox"/> Bond Proceeds <input type="checkbox"/> Sales Tax <input type="checkbox"/> Private <input type="checkbox"/> Property Tax <input type="checkbox"/> Other, Please specify: _____
9. Total Cost of the Project: (This amount must equal the sum of the federal and local amounts requested):	

## **BICYCLE PROJECT APPLICATION FORM – FY 2007-2011 TIP**

### **Part A: Project TIP Listing Information and Description**

#### **Section Two: Project Description**

Please complete the following information for all projects. The information provided is necessary for MAG staff and modal technical advisory committees (TACs) to understand and evaluate the federal funding request. Information supplied under items 1, 2 and 3 will be provided to the TACs as part of the evaluation process. This section shall not exceed 10 pages (single sided) or 5 pages (double-sided).

1. Please attach a map that clearly shows the project area boundaries, adjacent land uses, and connectivity of the proposed project to the surrounding area; and at least two photos of the existing project site to help establish the current conditions of the project area site. If no graphic is available or it is not feasible to provide one, please indicate this fact in the space below. Optional Items: site plan, copy of relevant pages of local planning and design documents, artistic rendering, newspaper articles, community support letters.
2. Please attach a description of the project and include the following:
  - a Work to be performed for example design, right-of-way acquisition, construction phases, major structures (e.g. bridges)
  - b An explanation of why the project should receive MAG federal funding. Describe the goal the project, what air quality benefits are to be achieved, service to underserved communities, safety benefits, improvement in network continuity and accessibility.
  - c Explain how the project addresses multi-modal issues by referencing the MAG Pedestrian Plan 2000; MAG Pedestrian Area Policies and Design Guidelines; MAG Regional Bicycle Plan; MAG Regional Off-Street System Plan.
  - d Explain how this project meets the needs of older adults by referencing FHWA's Highway Design Handbook for Older Adults and Pedestrians, ADA Guidelines, and/or AASHTO.
3. Please provide an estimated cost breakdown for the project including costs for: design, environmental clearance, construction, administration, contingency, soft costs, right of way, and utility relocation. You can use the Appendix A worksheet to assist you in this estimate.

## BICYCLE PROJECT APPLICATION FORM – FY 2007-2011 TIP

### Part B: CMS and CMAQ Data

**General Instructions:** In Part B, the applicant provides data necessary for MAG staff to calculate Congestion Management System (CMS) and CMAQ scores for projects.

#### Section One: Congestion Management System and CMAQ Data

Please complete the following information for all street projects. The information used in this section is used to calculate CMS scores.

<p>1. Current Average Daily Traffic (ADT) on the Roadway Adjacent to the Facility or Nearest Parallel Roadway (Please <u>do not</u> Use ADT from a Freeway or Controlled Access Facility):</p>	<p>2. Name of the Roadway Section Used for the ADT Estimate:</p>	<p>3. Type of Roadway Used for ADT Estimate (Check Only One):</p> <p><input type="checkbox"/> Arterial &gt; 4 legs (e.g. Grand)</p> <p><input type="checkbox"/> Arterial Street</p> <p><input type="checkbox"/> Collector Street</p> <p><input type="checkbox"/> Other</p>
<p>4. Number of <b>Through</b> Lanes on the Facility Used to Estimate ADT for Item 1 (Do <u>not</u> include turning lanes):</p>	<p>5. Length of the Facility (in miles):</p>	
<p>6. Township Coordinate of the Midpoint of the Bicycle Facility:</p>	<p>7. Range Coordinate of the Midpoint of the Bicycle Facility:</p>	<p>8. Section Coordinate of the Midpoint of the Bicycle Facility:</p>
<p>9. If the Facility is on a Roadway, Does the Roadway have a Curb and Gutter <input type="checkbox"/> Yes <input type="checkbox"/> No</p>		
<p>10. Does the Project Include Pedestrian Facility Improvements: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>		
<p>11. Bicycle Improvements (Check Only One):</p> <p><input type="checkbox"/> Adds Striped Bicycle Lane</p> <p><input type="checkbox"/> Adds Multi-Use Path</p> <p><input type="checkbox"/> Adds Bicycle Grade-Separation</p> <p><input type="checkbox"/> Other Bicycle Improvement</p>	<p>12. Is the bicycle improvement on an adopted local or regional bicycle plan. If yes, please identify the plan:</p>	

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**Part B: CMS and CMAQ Data**

13. Number of Major Activity Centers Within ¼ Miles of the Planned Bicycle Facility:

14. Number of Major Activity Centers Within ½ Miles of the Planned Bicycle Facility:

15. If the Planned Bicycle Facility Includes a Grade-Separation (e.g. Overpass, Underpass), Indicate the Total Length in Miles of the Facilities Connected:

16. Management System (Please check only one box)

Congestion Management System (CMS)

Safety Management System (SMS)

Bridge Management System (BMS)

Intermodal Management System (IMS)

Pavement Management System (PMS)

Other

Public Transportation Management System (PTMS)

17. Please identify the priority the agency places on this project. If for example, the agency is submitting three requests for bicycle projects and this is the agency's highest priority, then a "1" should be entered. Each priority entered should be unique – e.g. no two requests for bicycle projects should have the same priority.

## BICYCLE PROJECT APPLICATION FORM – FY 2007-2011 TIP

### Part C: MAG Technical Committee Additional Information

**General Instructions:** This supplemental information is required for bicycle and shared-use path/trail projects as shown by action by the MAG Regional Bicycle Task Force on April 19, 2005. If you have any questions, please contact Maureen DeCindis at the MAG office at (602) 254-6300, or send e-mail to [mdecindis@mag.maricopa.gov](mailto:mdecindis@mag.maricopa.gov).

All bicycle project requests should also include the coversheet, Part A and Part B of the Transportation Improvement (TIP) Highway Project Application Form.

#### MATCH REQUIREMENTS FOR BICYCLE AND SHARED-USE PATH/TRAIL PROJECTS

Once selected, projects must follow the National Environmental Policy Act (NEPA) process and the typical established Arizona Department of Transportation (ADOT) process for local government projects that include federal funding. The project development process can take up to 36 months. This includes creation of a design concept report (DCR) and various clearances. **When developing a funding estimate, be sure to consider the elements listed in Appendix A. Please do NOT submit Appendix A with your application; it is to be used ONLY as a template for developing estimates.**

#### REGIONAL BICYCLE TASK FORCE RATING SYSTEM INFORMATION

Currently, the Regional Bicycle Task Force uses a formula to establish the priority for funding bicycle projects.

$$\text{Score} = P \cdot (F + W + L + C + S)$$

For each of the following factors, please check the box next to the appropriate value.

##### Priority Factor (Check Only One)

- P = 3 for projects that include access to at least five local destinations, e.g. retail, medical, major employer (50+ employees), school, entertainment, restaurant, personal/family business, and church categories.
- P = 2.5 for project that include access to at least four local or regional destinations.
- P = 2.0 for projects that include access to at least three local destinations.
- P = 1.5 for projects that include access to at least two local destinations.
- P = 1.0 for projects that include access to at least one local destination.

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**Part C: MAG Technical Committee Additional Information**

**Facility Type Factor (Check Only One)**

- F = 5 for bike lanes, multi-use paths, or grade separations that provide access to local daily trip destinations.
- F = 4 for bike lanes, multi-use paths, or grade separations that provide access to a regional destination or for public bike parking facilities.
- F = 3 for edge line buffer zones 3 feet or more in width for at least 80% of the distance between arterial intersections.
- F = 2 for all other types of bikeways or other bicycle related projects.

**Work Type Factor (Check Only One)**

- W = 4 for providing access to local or regional destinations by a street widening project that results in adding a bike lane, construction of a multi-use path on acquired right-of-way, or construction of grade separations on acquired right-of-way.
- W = 3 for bike lane additions to existing streets by restriping of traffic lanes with lesser widths, widening of existing multi-use paths, or improvements to grade separations.
- W = 2 for upgrades or expansion of public bike parking facilities.

**Length Factor (Check Only One)**

- L = 3.0 for projects 5 miles or more in length.
- L = 2.5 for projects between 3 and 4 miles in length.
- L = 2.0 for projects between 2 and 3 miles in length.
- L = 1.5 for projects between 1 and 2 miles in length.
- L = 1.0 for projects 1 mile or less in length.

**Connecting Factor (Check Only One)**

- C = 3 for projects connecting segments of existing routes or projects that connect the bikeways of adjacent cities, towns, or County lands.
- C = 2 for projects providing direct connections from bikeways, through motor vehicle parking areas, to local or regional destinations.

**Socioeconomic Factor (Check Only One)**

- S = 3 for projects located substantially in an area with average household incomes of \$14,999 or less.
- S = 2 for projects located substantially in an area with average household incomes of \$15,000 to \$24,999.

**LOCAL PLANS AND POLICIES**

Please check the appropriate response to the following questions. Responses to these questions may be used by the Regional Bicycle Task Force in recommending projects to receive federal funds.

Does your jurisdiction have a bicycle plan that has been adopted by the City/Town Council?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
When approving development plans, do you require that bike lanes be placed on arterial streets?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
When approving development plans, do you require that bike lanes be placed on collector streets?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

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**Part C: MAG Technical Committee Additional Information**

When retrofitting existing roadways, do you require that bike lanes be placed on arterial streets?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
When retrofitting existing roadways, do you require that bike lanes be placed on collector streets?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Do you require that shared-use paths/trails be provided in new and/or retrofit developments?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Do you require bike parking in new and retrofit developments?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

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**(OPTIONAL)**

**APPENDIX A: PART 1 - TRAIL DEVELOPMENT COST ESTIMATE**

This information is taken from Appendix B, Path/Trail Planning Toolbox, from the MAG Regional Off-Street System (ROSS) Plan, adopted February 28, 2001 by the Regional Council Original information from Charles A. Flink, ASLA, President of Greenways Incorporated. From the Maricopa Association of Governments (MAG) Bicycling and Walking into the 21<sup>st</sup> Century Conference Series, Creating an Off-Street Path System in an Urban Environment, conducted on April 25-26, 2000 at the Tempe Mission Palms.

**Background and Instructions**

The following cost estimate form should be filled in using the most up-to-date and accurate cost data available. Upon completing this form, evaluate the total costs against the available budget and determine if the project can be developed in one or several phases.

**Name of Project:**

**PHASE I: TRAIL PLANNING**

Administrative Costs	\$
Publicity Materials (brochures, newsletters, advertising)	\$
Information, Data and Materials (documents, maps, aerial photos, etc.)	\$
Planning Consultant Fees	\$
Public Meeting Costs (rental fees, duplication costs, food)	\$
Utility Investigative Fees (electric, gas, fiber optic, cable television, other)	\$
Total Costs for Planning Phase	\$

**PHASE II: PATH/TRAIL DESIGN**

Land Surveyor Fees	\$
Testing Fees (soils, groundwater, vegetation, etc.)	\$
Design Consultant Fees (landscape architect, engineer, other)	\$
Total Costs of Design Phase	\$

**PHASE III: PATH/TRAIL CONSTRUCTION**

**ADMINISTRATIVE**

Permit Fees (USACE 404, Water Management District, other)	\$
Testing Fees (concrete, other)	\$
Construction Management Fees (landscape architect, engineer, other)	\$

**(OPTIONAL)**

**APPENDIX A: PART 1 - TRAIL DEVELOPMENT COST ESTIMATE**

<b>SITE PREPARATION</b>	
Tools/equipment	\$
Staking path/trail layout	\$
Clearing and grubbing vegetation	\$
Stripping/stockpiling topsoil	\$
Excavation and rough grading	\$
<b>DRAINAGE STRUCTURES</b>	
Waterbars	\$
French Drains	\$
Culverts	\$
Diversions	\$
<b>EROSION CONTROL STRUCTURES</b>	
Silt fence	\$
Sediment basin	\$
Retaining walls	\$
<b>BRIDGES AND BOARDWALKS</b>	
Prefabricated Bridges: (      ) Number required: (      )	\$
Retrofitting existing bridges (railroad, highway, roadway)	\$
<b>PATH/TRAIL TREAD DEVELOPMENT</b>	
Sub-grade Preparation (subbase, geotextile fabric, other)	\$
Woodchip surface	\$
Gravel, Limestone, shale surface	\$
Concrete Surface	\$
Soil cement surface	\$
Asphalt surface	\$
<b>PATH/TRAIL HEAD DEVELOPMENT</b>	
Entry/access road	\$
Parking lot	\$

**(OPTIONAL)**

**APPENDIX A: PART 1 - TRAIL DEVELOPMENT COST ESTIMATE**

Connector path/trail	\$
Concrete Surface	\$
Soil cement surface	\$
Asphalt surface	\$
<b>PATH/TRAIL HEAD DEVELOPMENT</b>	
Entry/access road	\$
Parking lot	\$
Connector path/trail	\$
Landscaping	\$
<b>LANDSCAPE RESTORATION</b>	
Topsoil	\$
Permanent seeding/sodding	\$
Fertilizer	\$
Landscape Plants (trees, shrubs, groundcover)	\$
<b>SITE FURNISHINGS</b>	
Trail Signage	\$
Safety and Security Structures (bollards, gates, stiles, other)	\$
Fencing	\$
Path/Trail Benches	\$
Picnic Tables	\$
Trash Receptacles	\$
Bike racks	\$
Restrooms	\$
Drinking Fountains	\$
Path/Trail Lighting	\$
Cellular Phones	\$
Other	\$

**(OPTIONAL)**

**APPENDIX A: PART 1 - TRAIL DEVELOPMENT COST ESTIMATE**

Total Costs for Construction Phase	\$
<b>PHASE IV: MAINTENANCE AND MANAGEMENT</b>	
Drainage and storm channel maintenance	\$
Sweeping/blowing debris off path/trail head	\$
Pick-up and removal of trash	\$
Weed control and vegetation management	\$
Mowing of 3 foot grass safe zone	\$
Minor repairs	\$
Park Ranger Patrol	\$
Maintenance supplies	\$
Equipment fuel and repairs	\$
Total Maintenance and Management Phase	\$

**(OPTIONAL)**

**APPENDIX A: PART 2 - TRAIL DEVELOPMENT CHECKLIST**

**ADMINISTRATION**

<input type="checkbox"/>	Person Who Is Overseeing the Project:	
<input type="checkbox"/>	Designer/ Landscape Architect/ Engineer	
<input type="checkbox"/>	Project Manager/ Budget Control Officer	
<input type="checkbox"/>	Public Information/ Promotional Contact	

**PLANNING TASKS**

**Tools Needed to Complete Work:**

<input type="checkbox"/>	Mapping (USGS Topo, aerials, 1" to 200' optimal scale).
<input type="checkbox"/>	Land Use information surrounding path/trail corridor defined.
<input type="checkbox"/>	Land Ownership identified, property owners notified.
<input type="checkbox"/>	Transportation plans for surrounding area (including widening and surfacing).
<input type="checkbox"/>	Previous work on corridor
<input type="checkbox"/>	Location and approximate depth of utilities.

Soils, geologic data identified by:	
Environmental Assessments by:	

**Work Items:**

<input type="checkbox"/>	Define path/trail corridor on appropriate scale maps, define points of travel origin and destination, linkage to other paths/trails, all access points including: multi-modal (auto corridor to path/trail corridor, parking and unloading); neighborhood/local; and interconnected (path/trail system to path/trail system).
<input type="checkbox"/>	Identify all potential user groups (may include commuters, cyclists, walkers, joggers, equestrians, persons with disabilities or others).
<input type="checkbox"/>	Define path/trail theme (may include transportation, recreation, educational resource, interpretive, special use, or a combination of these).
<input type="checkbox"/>	Determine desired path/trail design parameters based on state or national standards: path/trail layout configuration, tread width, surface type, travel speed, line of sight, other facilities such as bridges, design weight limits/capacity.
<input type="checkbox"/>	Define need for path/trail furnishings/accessories: rest areas, benches, picnic areas, interpretive elements, information/safety signage, toilets, drinking fountains, trash receptacles, lighting, etc.
<input type="checkbox"/>	Define physical condition of landscape (forested, semi-wooded, open, desert) topography, intersections, conflicts with urban elements, opportunities for path/trail development, construction access.
<input type="checkbox"/>	Determine location of utilities within corridor: overhead or underground electricity, gas, water, sewer, fiber optic, cable television, other.
<input type="checkbox"/>	Define location of unique environmental conditions: unstable or erosive soils, sensitive animal habitat, presence of wetlands, cultural features, vegetation, hazardous materials, flooding, wildfire/forest fire hazards, cross drainage patterns, other significant natural features.
<input type="checkbox"/>	Describe aesthetic condition of landscape: viewsheds, areas of light and dark, open and closed landscapes, climate effects (sun and wind exposure), odor and noise, potential user comfort.

**(OPTIONAL)**

**APPENDIX A: PART 2 - TRAIL DEVELOPMENT CHECKLIST**

<input type="checkbox"/>	Determine permits required for development: federal, state or local environmental, Section 404 Clean Water Act, state and federal highway encroachments, roadway or railroad crossings/underpasses/overpasses, utility crossings, FEMA, clearing and grading, sediment and erosion control, other.
<input type="checkbox"/>	Define safety and security issues: attractive nuisances, wildlife, insects, steep grades, drop-offs, use conflicts, blind spots, crime, security problems, access for rescue or maintenance crews, vegetation management.
<input type="checkbox"/>	Identify development/management entity:
<input type="checkbox"/>	Define funding issues relevant to design development: project costs, phasing and priorities, feasibility.
<input type="checkbox"/>	Determine appropriate level of citizen participation in planning and design of the path/trail: create a citizens advisory committee to champion the plan.
<input type="checkbox"/>	Hold formal public information meetings to describe planning, design and development process for the path/trail
<b>PRELIMINARY DESIGN TASKS</b>	
<input type="checkbox"/>	Complete field survey of all property boundaries, identify ownership through location of iron pins or other property markers, define cross access easements, utility easement or other property encumbrances. Plot all information on maps.
<input type="checkbox"/>	Complete soils testing to determine bearing capacity of soils for multi-use hard surfaced paths and structures such as bridges. Define location of unsuitable soils.
<input type="checkbox"/>	Prepare a path/trail layout on a base map and complete a field layout of the proposed path/trail route on-site using surveyors flagging tape and stakes to illustrate location.
<input type="checkbox"/>	Complete design details for path/trail cross section: reference the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities, define sub-grade according to bearing strength, stability, firmness, behavior when wet, frost line, presence of foreign material (such as railroad ballast); determine appropriate use of geotextile fabrics and soil sterilitent; define required thickness of subbase material with assistance from engineer; determine appropriate compaction rate; define the type and thickness of path/trail surface appropriate to serve identified user groups.
<input type="checkbox"/>	Complete design details for bridges, including footings, deck surface, railing height and opening between rails; retaining walls; decking, boardwalks or wildlife observation platforms
<input type="checkbox"/>	Complete layout plans and design details for signage: reference the Manual on Uniform Traffic Control Devices for bikeways, Americans with Disabilities Act, and local sign ordinances to ensure compliance with appropriate regulations
<input type="checkbox"/>	Define site furnishings appropriate for project development, including: location and type of trash receptacles, bench seating, lighting, telephones, restrooms, drinking fountains, mileage markers, information kiosks, etc.
<input type="checkbox"/>	Determine the location and type of security measures for the trail, including fencing, gates, bollards, emergency telephones, street signs, etc.
<input type="checkbox"/>	Prepare a landscape plan for the project that restores and re-vegetate areas disturbed or to be disturbed by path/trail development. Specify plant material type, size and height; soil preparation; watering or irrigation requirements; fertilizing schedule, etc.
<input type="checkbox"/>	Complete environmental permits for project and file with appropriate local, state and federal agencies.
<input type="checkbox"/>	Obtain local and state review of Preliminary Design Work to ensure compliance with comprehensive land use, recreation, transportation, historic preservation, and water management plans.
<input type="checkbox"/>	Submit preliminary path/trail drawings to utility companies, local transportation departments and other state and federal agencies for review and comment.
<input type="checkbox"/>	Prepare a sedimentation and erosion control plan for the entire project, submit to appropriate review agency for approval of grading permit.
<input type="checkbox"/>	Prepare preliminary design development cost estimates for the project.

**CONSTRUCTION DRAWINGS AND BID DOCUMENTS**

**(OPTIONAL)**

**APPENDIX A: PART 2 - TRAIL DEVELOPMENT CHECKLIST**

**Work Items:**

<input type="checkbox"/>	Prepare plan sheets that illustrate the location of the path/trail, and all path/trail facilities within the property boundaries defined. Use engineering plan and profile sheets to illustrate the horizontal and vertical position of the trail in the natural landscape. Prepare Cover sheet with index to drawings and general notes; grading plan; landscape plan; erosion control plan; and other plan sheets as project requires.
<input type="checkbox"/>	Prepare necessary detail sheets to illustrate important features of trail facilities at a scale suitable for describing the intricate relationships, material preferences, methods of construction or installation, and other relevant specifications.
<input type="checkbox"/>	Prepare Technical Specifications that describe the methods, materials and procedures for constructing, fabricating and installing all path/trail facilities. Typical component specifications would include: vegetation clearing and grubbing, excavation, site preparation, backfill, drainage, geotextile fabric, subbase, surfacing, erosion control, landscaping, concrete work, finish carpentry, landscaping and structural work.
<input type="checkbox"/>	Prepare General Conditions of the construction contract.
<input type="checkbox"/>	Prepare Bid Documents for contract construction: Invitation to Bidders, Bid Proposal Form, Bid Bond, Notice of Award, Performance Bond, Labor and Materials Bond, Notice to Proceed, Notice of Final Acceptance, Final Receipt.
<input type="checkbox"/>	Develop final cost estimates for project development.
<input type="checkbox"/>	Submit final construction documents to local and state agencies for review and approval.
<input type="checkbox"/>	Prepare final survey plats and legal descriptions for trail easements.
<input type="checkbox"/>	Prepare Bid Documents for contract construction: Invitation to Bidders, Bid Proposal Form, Bid Bond, Notice of Award, Performance Bond, Labor and Materials Bond, Notice to Proceed, Notice of Final Acceptance, Final Receipt.
<input type="checkbox"/>	Develop final cost estimates for project development.
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