

RISK MANAGEMENT PLAN
WAR-63 PRIORITY PROJECT
WARREN COUNTY, OHIO

WARREN COUNTY TRANSPORTATION IMPROVEMENT DISTRICT
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Need

The Warren County Transportation Improvement District recognized early in project development that the WAR-63 Priority Project was a unique undertaking that would require both intensive coordination among project partners, and adherence to an articulated risk management plan. This plan was first articulated in Section VII of the *Conceptual Implementation and Financial Plan*, WCTID, May 2018.

Methodology/Approach

Risk Management strategy is generally composed of five parts:

1. Risk Planning: Building a multi-disciplinary team;
2. Risk Identification: Identification of potential events, and their potential impacts (including cost, schedule, other);
3. Risk Analysis: Evaluation of probability of occurrence of a risk event;
4. Risk Response Planning: Identification of risk avoidance, minimization, mitigation and transfer opportunities and establishment of appropriate contingency;
5. Risk Monitoring Plan: Establishing re-assessment intervals.

Status

Certain aspects of the WAR 63 Priority Segment Project are already underway or have been completed. This mitigates some of the risk involved in subsequent phases. Phases that are completed or are in process or completed include preliminary development (environmental, pre-Stage 1 plans, initial cost estimates) and right of way acquisition. Work remaining to be done prior to initiation of construction includes finalization of all funding sources and commitments (including Federal), completion of project sale design-build procurement contract documents and utilities relocation.

Discussion and Evaluation of Risk Elements

Issues and considerations for some of the identified risk categories are discussed in the following paragraphs. Risks have been characterized for purposes of this report as Low, Medium or High, with the following considerations:

Risk Level	Commentary	Follow Up and Management Needs
Low	Does not pose a significant risk	Minimal; normal procedures/process
Medium	Potential for significant risk	Regular revisit and proactive review
High	Known or likely significant risk	Corrective action to reduce risk

Identification of Funding Sources

Warren County Transportation Improvement District (WCTID) evaluated a broad spectrum of alternative funding sources (see Section IV of the *Conceptual Implementation and Financial Plan*, WCTID, May 2018), culminating in Section IV(g), a report to the WCTID and Warren County Auditor, enumerating the funding options. Ultimately the County decided on combination of Tax Increment Financing and County General Funds (inside millage) of \$12,500,000 to support development and construction of the project.

With this commitment in place, a generous construction cost contingency assumed, and other conservative assumptions related to funding needs and sources, the risk associated with funding is considered *LOW*.

Public Support

Extensive public outreach has occurred during preliminary development (*Public Engagement Summary Report – Warren County Heritage Area Transportation Plan and WAR-63 Priority Project*, WCTID, June 2019). The risk associated with public engagement includes lack of inclusion, lack of clarity with respect to intentions and options, and non-agreement with basic project need. The intensive and professional outreach and communication effort that has occurred early in the project development process has provided assurance that both the immediate and larger community of

stakeholders is supportive of Warren County's, the WCTID's and ODOT's efforts to forward this project. The political and community risk that the project is not supported or does not advance due to public controversy is considered *LOW*.

Environmental Impact and Process Closure, Mitigation

Following extensive field reviews and updates on the project NEPA documentation, the only significant environment constraint is possible historic remnants of Shaker foundations located within the right-of-way at three spot locations, and possible pre-historic resources elsewhere in minimally disturbed areas along the right of way. Remote sensing and surface Phase 1 survey work is underway but not complete. Phase 2 survey and recovery work may be required, but is not certain at this point. If so, some risk to a conventional NEPA closure schedule is possible, and some creative looks at incorporating mitigation actions in project construction may be required. The risk associated with cultural resource recovery is considered *MEDIUM*.

Other items in the environmental process, including gas transmission station impacts, waterway impacts at Shaker Run, and aquifer protection in the western half of the project, are considered *LOW* risk items having a clear path for closure.

Right of Way Acquisition

The risk associated with acquisition of unanticipated parcel has been mitigated by three factors: first, the extent of preliminary engineering performed by the Ohio DOT in advance of planned design-build procurement; second, the Warren County Transportation Improvement District has plans to acquire right of way for future expansion at the time of initial land acquisition; and third, the majority of the land necessary for the project is already in State of Ohio hands, requiring only the administrative transfer of ownership to the Ohio DOT. The remaining right of way is comprised of limited strip or single parcel takes. The risk associated with right of way acquisition is considered to be *LOW*, although specific monitoring and management of progress is important.

Utility Coordination

The risk associated with unanticipated utility involvement or cost of relocation has been mitigated by extensive coordination with Duke Energy and other utilities located within

the expanded right of way. Duke Energy is in the process of upgrading the service to the area and was already planning a project along the corridor. Negotiation regarding cost and cost sharing is on-going, but a conservative cost estimate has been incorporated in the project budget. The schedule risk associated with utility coordination is considered to be *MEDIUM* since the utilities will have to substantially complete their projects in advance of some roadway construction activities.

Design and Construction

The project will be let under a design-build procurement contract. This transfers a portion of the risk, both schedule and cost, associated with design failures or other inadequate QA/QC to the prime contractor. Additionally, the scope will include performance measures that will reduce the risk of project not functioning as anticipated. The risk associated with design and construction is considered to be *MEDIUM*.

Operations and Maintenance

Performance standards included in the design-build contract will help mitigate safety and performance concerns during operations of the facility. The risk associated with design and construction as related to operations and maintenance consequences is considered to be *MEDIUM*.

Risk Management Matrix

Table 1 on the following page summarizes risk management issues identified to date, risk rating, and management elements forming the initial risk management plan for the project. The Plan will be updated and expanded as necessary once funding and certain implementation dates are confirmed.

TABLE 1 – RISK MANAGEMENT MATRIX/PLAN FRAMEWORK

Stage	Category	Description of Risk	Potential Impact	Response Strategy	Probability	Re-assessment Interval
Preliminary Development	Public Involvement	Political Risk that Project does not advance (existential)	Project does not advance	Responsive Public Engagement Process	Low	Regular updates to project team (at least monthly)
	Environmental Impacts	Identification of unanticipated resource (schedule)	Schedule delay	Multi-disciplinary field review	Low	Ongoing throughout project (environmental commitment monitoring)
		Section 106 Approvals (schedule)	Schedule delay	Early coordination	Medium	Regular until approvals are received (at least monthly)
		Delay in finalizing environmental document	Schedule delay	Effective Purpose and Need	Low	Regular until approvals are received (at least monthly)
Right of Way	ROW Acquisition	Acquisition of unanticipated parcels	Schedule delay Cost escalation	Multi-disciplinary risk review	Low	Regular until ROW is acquired (at least monthly)
	Utility Coordination	Unanticipated Utility Involvement	Schedule delay Cost escalation	Early coordination	Medium	Ongoing until utilities are relocated
Design	Incomplete Design	Inadequate QA/QC	Schedule delay Cost escalation	Transfer of Risk ¹	Medium	Regular team meetings with ODOT
	Defective Plans and Specifications	Inadequate QA/QC	Schedule delay Cost escalation	Transfer of Risk	Medium	Regular team meetings with contractor (at least monthly)
	Inadequate Site Investigation (including geotechnical)	Inadequate QA/QC	Schedule delay Cost escalation	Transfer of Risk	Medium	Regular team meetings with contractor (at least monthly)
	Unrealistic Schedule	Inadequate QA/QC	Schedule delay Cost escalation	Transfer of Risk	Medium	Regular team meetings with contractor (at least monthly)
	Unrealistic Budget	Inadequate QA/QC	Schedule delay Cost escalation	Transfer of Risk	Medium	Regular team meetings with contractor (at least monthly)
	Scope	Scope is too restrictive to allow for innovative cost saving opportunities	Lost opportunities for cost savings and innovation	Multi-disciplinary review of scope, independent review of scope by non-bidding contractor	Medium	Procurement works with project team in developing scope – regular exchange of ideas using document sharing software
Construction	Major Accidents (vehicular or construction)	Clean-up and recovery Liability	Schedule delay Cost escalation	Transfer of Risk	Medium	Safety and Accident Prevention Plan Effective MOT Plan Inspection
	Acts of God	Weather	Schedule delay Cost escalation	Coordination with Contractor	Low	Contingency Emergency Action Plan

¹Includes Contractual Allocation of Risk, Insurance Coverages, Surety Bonds, Warranties, Dispute Resolution Provisions, Lien Waiver Provisions, Force Majeure Definition, Change Order Definition, and Professional Liability

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Stage	Category	Description of Risk	Potential Impact	Response Strategy	Probability	Re-assessment Interval
Operations and Maintenance	Post Construction Safety Problems	Need for Countermeasures	Increased Asset Management Costs Traffic Delay	Performance Criteria Enforcement	Medium	Post-incident
	Material or construction defects	Re-work	Increased Asset Management Costs Traffic Delay	Performance Criteria Enforcement	Medium	Post-incident
	Vague or conflicting performance standards	Unable to hold contractor to established standards	Increased Asset Management Costs	Clear performance criteria	Medium	Review of scope prior to procurement
	Contractor malfeasance	Bankruptcy, failure to comply with performance standards	Bonding	Due-diligence	Low	Review prior to procurement