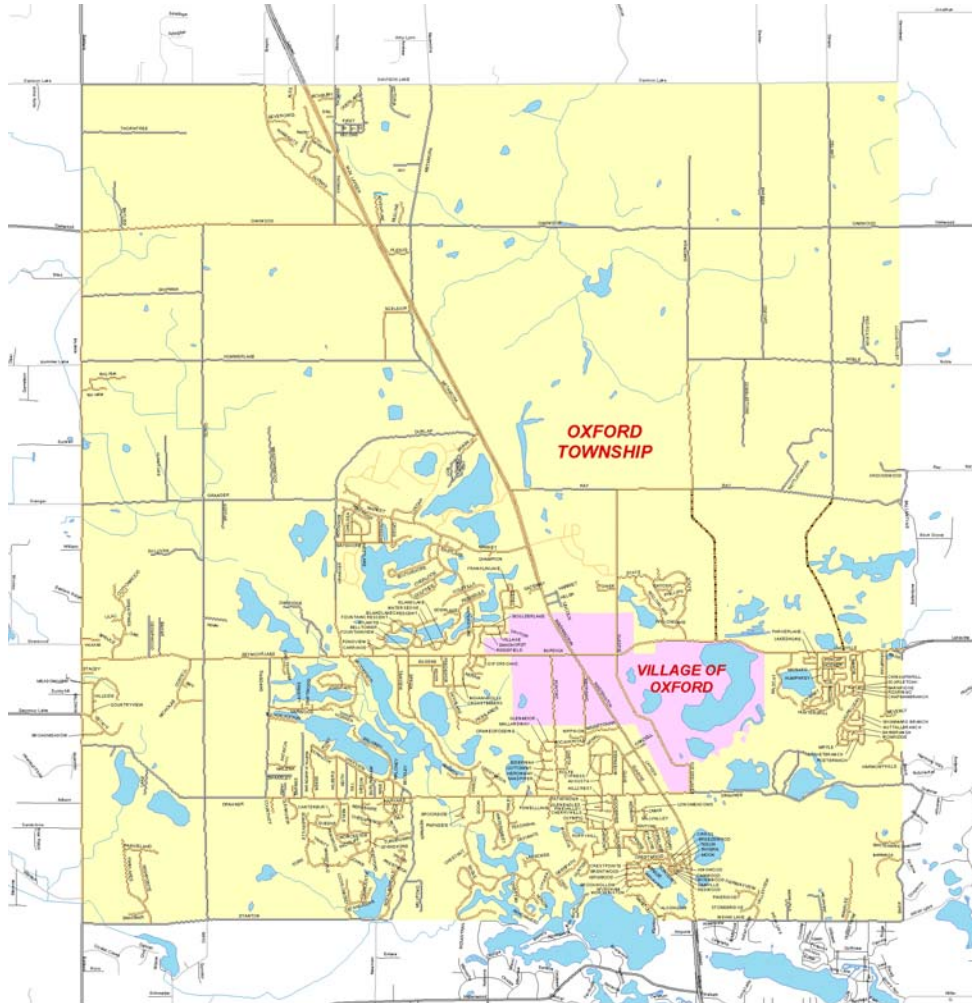


Charter Township of Oxford

Roads Master Plan



Professional Engineering Associates, Inc.
October, 2004

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ROADS MASTER PLAN

HISTORY

In recent years, the Charter Township of Oxford, along with much of northern Oakland County has experienced considerable growth in residential development and associated services uses. The Oxford Township Board of Trustees has recognized that steady residential growth is likely to continue in the community, particularly as local gravel mining operations are re-claimed and developed as desirable residential uses. With this anticipated growth, community infrastructure improvements are inevitable. Nowhere is this more evident than in the increasingly stressed system of local, county and state roads in and around the Township of Oxford.

The important issue of improving and expanding the road system in the community to address current and future needs is impacted by limited available funding sources. The Township expects that competition for transportation funding will grow increasingly more aggressive as the region's overall transportation infrastructure ages and as other Townships and Municipalities within the County experience similar, or even more profound growth. Acknowledging this, the Township has teamed with the region's primary road funding source, the Road Commission for Oakland County (RCOC) to identify and convey maintenance and improvement/expansion needs. The RCOC maintains short range (3 year) and long range (25 year) road improvement plans for the entire County; it is from these lists that projects are selected for implementation. The RCOC recognizes that limited funds available in the near and long term severely constrain the number, type and location of projects that can be considered for implementation in their short and long range plans. In light of this the RCOC has recommended that the Township develop a Roads Master Plan. The Master Plan will identify specific projects that are of reasoned high priority to the Township and consistent with long range community planning objectives. This

will assist the RCOC in distinguishing Oxford Township projects from the needs articulated by all other Townships and Municipalities within the County. The intent is to assert the importance of specific improvements within the Township and thus to capture as much available funding for the Township's roads as possible.

In March, 2003, the Charter Township of Oxford Roads Committee, representing the Township Board of Trustee's selected Professional Engineering Associates, Inc. (PEA), to prepare the Roads Master Plan in participation with the Township, County and community stakeholders.

PURPOSE OF ROADS MASTER PLAN

A Roads Master Plan is a community planning tool which provides a guide to attaining the safe and orderly movement of people and goods throughout the community in the near and long term. It considers the immediate and future needs of the many stakeholders within the community to provide for the controlled improvement and expansion of the road system. A Roads Master Plan, when coordinated and implemented with a Land Use Master Plan will improve the continuity of traffic flow within and between neighborhoods and throughout the community while allowing for the overall relief of the growing problem of traffic congestion. Further, it will assure the preservation of adequate right-of-way and minimize the extent and cost of future land acquisitions along intended growth corridors.

A Roads Master Plan provides a "road map" to the future improvement and development of the Township's transportation infrastructure. It is a key guide for local, county and state officials in determining the funding of future improvements within the community. A Roads Master Plan provides recommendations and serves as solid tool to assist the RCOC in the

preparation of their short (3 year) and long (25 year) range Regional Transportation Plans and makes a case for financial support now, in 2030 and beyond.

COMMUNITY INVOLVEMENT

There are a number of key stakeholders that have an interest in the development of an effective Roads Master Plan within the community. Residents, local businesses, schools, emergency services, Township administrators, departments and officials must have their interests represented in the plan. Also impacted are residents and officials from the Village of Oxford and other surrounding communities. Finally, regional transportation agencies such as the Road Commission for Oakland County, Michigan Department of Transportation and SEMCOG are critical in that they are aware of regional transportation needs and how they affect, and are affected by, the needs of Oxford Township. Additionally these agencies represent the primary funding sources for many of the future public road improvements that are identified in this plan.

The Roads Committee established, as a guiding criteria in the development of the Master plan, that a clear cross section of stakeholders be a part of the process. PEA, with the assistance of Joseph Ferrari contacted many potential candidates for the task force. Appendix V provides a list of the individuals and the organization/group each represented who became a part of the task force and whom assisted in the development of the Master Plan. These individuals are to be lauded for their efforts in developing and prioritizing the important list of projects presented in this document.

PROCESS

In March, 2003, PEA met with the Charter Township of Oxford Roads Committee (ORC), the North Oakland Transportation Authority and with the Road Commission for Oakland

County (RCOC) to obtain available information and to discuss roadway projects for inclusion into the Roads Master Plan. The existing road infrastructure within the Township was inventoried. The surface type of streets within the community were recorded to function as the framework for the Roads Master Plan. Hundreds of digital photos and over ten miles of videos were obtained from streets within the Township.

After careful consideration by the ORC of the stakeholders key to the process, a Task Force was created to guide the preparation of the Roads Master Plan. This Task Force included representatives from the ORC, Township Engineer, Township Planner, Fire Department, Oxford Township Sheriff, Village of Oxford Police, Planning Commission, RCOC, Oxford Area Schools, Gravel Mining Industry, and a developer. The Task Force Members are named in the list provided in the appendix.

Surveys were completed by the Task Force and used to identify problem areas and develop short and long range plans for the controlled improvement and expansion of Oxford Township's road system. These surveys along with roadway projects provided by the ORC and the RCOC were used to develop a preliminary list of projects and a project map. The surveys were also used to assign preliminary priorities and refine specific improvements to address the current and future needs and desires of the stakeholders.

At the 1st Meeting of the Task Force on October 30, 2003, preliminary maps, information and an Initial Project Wish List were discussed. The Task Force considered specific needs of the community, identified problem areas and enhanced the wish list of future improvements to the road system in an effort to serve the residents of Oxford Township and address their own needs as stakeholders in the community. The resultant wish list identified many types of projects including paving/surface upgrades, future roads, drainage improvements, bridge widenings, intersection geometric upgrades and more. (A Meeting Summary is included in Appendix VI.)

Based on discussions from the 1st Meeting, the preliminary maps were updated and the wish list refined. PEA compiled more detailed information on many of the projects suggested by the Task Force and prepared estimated costs of construction for each project, where practical. The updated maps and wish list of projects were presented and discussed at the 2nd Meeting of the Task Force on January 15, 2004. The focus of this meeting was to further refine the project list, but more importantly, to begin effectively prioritizing the list based on the stakeholders understanding of community needs now and into the future. PEA presented specific project information on many of the over 40 projects on the wish list in an effort to inform the stakeholders. These factors included project type, historical priority established by Township, previous survey responses from stakeholders, safety/crash concerns, segment jurisdiction and function, current RCOC plans, Federal Aid designations, Average Daily Traffic (ADT), conceptual cost, and conceptual cost per ADT. (This information is presented in Appendix III.) Significant discussion was stimulated amongst the task force members for each project concerning their understanding of needs of the community and their own stakeholder concerns. (Meeting minutes are included in Appendix VI.)

After these projects were presented and discussed, the Task Force participated in a group voting exercise in an effort to begin formally prioritizing the list of projects. In this process, each stakeholder was given 20 “votes”. The votes were actually stickers of differing colors. Four colors were used with differing point values for each color as follows:

Color:	RED	BLUE	SILVER	GREEN
Point Value:	10	6	3	1

Each stakeholder was given five stickers of each color for casting votes. The projects that they identified to be highest priority were given red stars (10 points). Projects of lowest priority to the stakeholder, but warranting points nonetheless were given green stickers (1 point).

Following the meeting PEA compiled all votes cast and the corresponding “score”, or total points, for each project was calculated. Projects were then prioritized according to the score received. The resultant scoring matrix and project priority list is presented in Appendix II. Based on this information the map of prioritized projects was refined to indicate high, medium and low priority projects.

PUBLIC AWARENESS

The Roads Master Plan process has encouraged the input of the public at large through various forms of communication, including a website, media coverage and mailings. The website, <http://www.peainc.com/Oxford/>, includes this Roads Master Plan. All information on the website has been periodically updated as information was received and as changes were implemented based on input from the Task Force.

The maps and Project Priority List were presented at the 1st Public Hearing of the Roads Master Plan on March 16, 2004. Formal comments were obtained and are documented in the Meeting Summary in the appendix. Notice of the Public Hearing was published by the local media and at the Township Offices. In addition, the Public Hearing was televised by Oxford Community Television. Furthermore, information was provided to all citizens who requested information.

MAPS

Six interactive GIS Maps are part of the Roads Master Plan. The following maps are included as attached exhibits:

EXHIBIT I - Road Jurisdictions - The Road Jurisdictions Map identifies Paved County Primary, Gravel County Primary, Paved County Local, Gravel County Local, Natural Beauty, Local and State Highways.

EXHIBIT II - Road Surface Types - The Road Surface Types Map shows asphalt, concrete, and gravel road surfaces within the Township.

EXHIBIT III - Future Desired Right-of-Ways - The Future Desired Right-of-Ways Map indicates 60', 66' 86', and 120' right-of-ways throughout the Township.

EXHIBIT IV- Project Location Map - The Project Location Map indicates High, Medium and Low Priority Projects as set forth by the Roads Task Force.

EXHIBIT V- Haul Routes - The Haul Routes Map shows Gravel Operations, Designated Truck Routes, Special Designated Truck Routes and Special Permitted Haul Routes. This map may be used by the Township to develop a Haul Route Ordinance.

EXHIBIT VI- Digital Image Log - The Digital Image Log shows the locations of hundreds of digital photos and over ten miles of videos of streets within the Township. The electronic photos and videos are available at the Charter Township of Oxford.

EXISTING ROADWAY NETWORK

Oxford Township is located at the northern edge of Oakland County and the Greater Detroit Region. The Village of Oxford occupies roughly 1.5 square miles within the Township. The Township is strategically located between two major expressways connecting very extensive regional shopping and employment opportunities.

Roads within the Township are under the jurisdiction of the RCOC, with the exception of private roads (listed in Appendix IV) and M-24 (Lapeer Road), a major north to south commuting artery in northern Oakland County, that centrally divides the Township. M-24 is under the jurisdiction of the Michigan Department of Transportation (MDOT). County Roads are further classified as either Primary or Local and either paved or gravel surfaced. RCOC has also classified several roads as Natural Beauty Roads, distinguished for the unique natural character these road corridors offer the community and the region. (Existing road jurisdiction and surface types are catalogued in Appendix I, Exhibit I and Exhibit II respectively. Exhibit VI identifies digital photos and video footage available.)

There are also more than fifty private roads in the community, which are listed in a table at the end of this document. Private roads provide sufficient access to properties and also maintain environmental characteristics due to minimal grading and tree removals. In order to provide for these environmentally compatible roads, the Charter Township of Oxford has published requirements for private roads in the "Design Standards and Construction Specifications Manual," prepared in 1998 by Rowe Incorporated. This publication requires that new private roads meet most engineering standards normally required of a dedicated public road, and insure continual access and maintenance comparable to that of a public roadway.

GRAVEL ROADS

There are approximately 46 miles of gravel roads in Oxford Township that require maintenance by the RCOC. The RCOC reports that their studies have demonstrated that an average daily traffic (ADT) of 800 vehicles per day (vpd) is the break point in determining whether a gravel road should be paved. When 800 vpd is exceeded the annual cost of maintenance exceeds the corresponding annualized cost of paving the road.

The following is a list of gravel road segments in Oxford Township for which the above warrant is met or exceeded:

<u>Road</u>	<u>Segment</u>	<u>ADT</u>	<u>Date</u>
Ray	Lapeer to Oxford*	4,127	6-20-02
Baldwin	Oakwood to Davison Lake*	2,447	8-29-01
W. Drahner	Sanders to Baldwin*	1,915	9-10-01
Sanders	Drahner to Seymour Lake*	851	9-11-01
W. Drahner	E. of Sanders**	2,779	
Oakwood	M-24 to E. Twp. Line**	986	6-24-98
Newman	Stanton to Drahner*	897	9-13-01
Oxford	Noble to Oakwood	1,549	10-3-01
Metamora	M-24 to Davison Lake*	1,454	6-20-02

Of the 9 road segments identified above, the Task Force identified 6 (denoted with a “*”) as high priority projects and 2 as medium priority (denoted with a “**”), and 1 as low priority.

The RCOC has indicated that they receive \$1 Million per year from the state to pave gravel roads in the County. Assuming average construction costs exceeding more than \$1 Million per mile of newly paved road; this results in less than 1 mile of new road per year. Cumulatively the high priority projects identified in the above list total about 12 miles, likely in well in excess of \$12 Million to build all projects. This underscores the importance of distinguishing Oxford Township’s unique needs in competing with other County jurisdictions in attempting to capture available funding.

RIGHT-OF-WAYS

PEA utilized the Township adopted RCOC Master Right-of-Way Plan as a base to prepare the community Future Desired Right-of-Way Map. This map was supplemented with new future road corridors identified by the Road Master Plan Task Force and the Land Use Master Plan Committee. This map identifies the right-of-way widths desired by the RCOC for each corridor. Generally, the RCOC has established desirable widths of between 86' and 120' for road segments designated as Primary and 60' to 66' for Local road segments.

The Township and the County must work together to use this map as a guide for future growth and development within the community. Existing right-of-way corridors will require widening at least to the extent demonstrated in the map to facilitate the road infrastructure improvements warranted by the increased use attributable to the growth. The RCOC has encouraged the Township to formally adopt this map as a guide to future transportation planning within the community.

The RCOC's representative on the Task Force, Mathew Gaberty, suggested that the Township consider additional right-of-way (up to 120') for roads designated as Natural Beauty Roads within the community. It was suggested, that contrary to common the conception that wider right-of-way will result in wider roads, the RCOC has found that the increased right-of-way will limit the extent to which private developers can intrude within the corridor limiting how far their improvements can extend towards the existing road.

PROJECTS

The development of a prioritized list of projects was the single most important charge of the Township in conceiving of the Roads Master Plan. This is, in fact, what the Roads Task Force

was most focused on. Using the process and information discussed in this document a comprehensive list of projects was developed and prioritized. (This is presented in Appendix II.) Additionally, a Project Location Map has been prepared. (This is presented in Appendix I as the Project Location Map (Exhibit IV).) The map is cross referenced with the prioritized list.

The top three prioritized projects included the paving of Ray Road, West Drahner and Sanders Road. The top priority signalization project is at East Burdick @ Glaspie Street in the Village of Oxford. The highest priority intersection project is at the intersection of Coats Road and West Drahner. The Project Location Map and Project Priority List may be referenced for a complete list of project information and priorities.

The Project Priority List and Map contain information about the short and long range plans of the RCOC. These projects include:

<u>Road</u>	<u>Segment</u>	<u>Project</u>	<u>Date</u>	<u>Map</u>
Seymour Lake	W. of Granger	Bridge Design	2004	O3
Baldwin @ Indianwood		Roundabout	2004	ORION
M-24	Entire Length	Safety	2025	O4
Ray	Oxford to M-24	Pave	2030	j
Baldwin	Oakwood to Davison	Pave	2030	e
W. Drahner	Baldwin to E. of Sanders	Pave	2030	n
Coats	Stanton to Drahner	Pave	2030	s

The 2030 Gravel Road Paving Plan indicates that Ray Road and a portion of West Drahner are eligible for federal funds for paving. The RCOC is currently working on the 2030 Regional Transportation Plan (RTP) and projects included in this plan will be known when the RTP becomes available to the public.

HAUL ROUTES

Since gravel operations are prevalent throughout Oxford Township, the Roads Committee's desire was to formalize Haul Routes. Working with the Roads Task Force, and

coordinating with the RCOC, PEA was able to identify all existing truck routes. The resulting map is presented in Appendix I, Exhibit V.

CONCLUSION

The Roads Master Plan, prepared with the significant input of the Roads Task Force is a document that is truly representative of the needs of the Oxford Township and the various stakeholders within and around the Township. The list of projects developed and prioritized by the Task Force and presented herein will serve as a guide and a resource for community officials to utilize with confidence in the years ahead when making important decisions concerning the transportation needs of the community. Further it reinforces a cooperative, harmonious relationship with the Road Commission for Oakland County, the agency through which much of the public funding for the improvements will be channeled.

REFERENCES

The following is a partial list of documents, materials and information utilized by PEA and the Task Force in preparing this document:

- OXFORD TOWNSHIP
 - ZONING DISTRICTS MAP
 - CENTRAL AREA PLAN
 - EAST CENTRAL AREA PLAN
 - ORDINANCE NO. 117 - SAFETY PATH & SIDEWALK REGULATIONS
 - 2003-2007 PARKS AND RECREATION MASTER PLAN
 - OPEN SPACE AND GREENWAY PLAN
 - CHARTER TWP. OF OXFORD DESIGN STANDARDS
 - PRIVATE ROADS OXFORD TOWNSHIP
 - OXFORD TOWNSHIP STREET INDEX MAP (BY ROWE)
- ROAD COMMISSION FOR OAKLAND CO. SUPPLEMENTAL INFORMATION:
 - RCOC MASTER RIGHT-OF-WAY PLAN
 - ACCIDENT DATA
 - 2004 ROAD IMPROVEMENT PROGRAM
 - 2025 REGIONAL TRANSPORTATION PROJECTS
 - 2030 GRAVEL ROAD PAVING PLAN
 - TRUCK OPERATOR'S MAP

-
- RRR PROJECT RATING SYSTEM
 - 2003 TRANSPORTATION PROJECTS IN OAKLAND COUNTY
 - STP PROJECT RATING SYSTEM
 - CATEGORY "C" PROJECT RATING SYSTEM
 - ACCREDUC- PROGRAM FOR CALCULATING ACCIDENT REDUCTION
 - OAKLAND COUNTY OFFICIAL ROAD MAP
 - MEETING MINUTES
 - STRATEGIC PLANNING MEETING FEB. 5, 2001
 - BIANNUAL MEETING WITH RCOC 4-22-03
 - SURVEYS
 - SEMCOG
 - ADT'S
 - CORRIDOR PRIORITIES - SOUTHEAST MICHIGAN
 - PLAT MAP
 - 1998 BACKGROUND STUDY FOR THE OXFORD CHARTER TOWNSHIP M.P.