

**Ottawa County  
Planning and Grants Department**



**US-31 Staff Position Paper**

## **SITUATION STATEMENT**

The discussion of the problems surrounding US-31 have been occurring for over ten years and a decision from MDOT regarding the future alignment is finally at hand. The County understands and appreciates the opinions and fears of all the various communities and recognizes that since this is such a controversial issue, complete consensus cannot be attained. However, the County also understands that it is in the best interest of the County as a whole to resolve present and future problems on US-31. Therefore, it is the intent of the Planning Department and the Planning Commission to provide the County Board of Commissioners with a recommendation from a planning perspective that represents a long term solution beneficial to the County as a whole.

## **METHODOLOGY**

Knowing that it will be impossible to reach a complete consensus on the preferred alignment for US-31, the priority in selecting a preferred alignment is to select the alternative that is in the best interest for the entire county. To this point, several criteria were used in considering each alternative: 1) The need to plan from a countywide transportation perspective; 2) The need to plan for 30 to 50 years; 3) The need for an uninterrupted north-south freeway; and 4) The immediate need for an additional bridge across the Grand River.

This paper summarizes the analysis that was conducted on each viable alternative from several different objective perspectives (public comment, transportation, cost, social, economic, farmland, environmental, and secondary impacts) to select an alternative based on factual information and logical assumptions. The format of the paper is as follows:

1. Each alternative is ranked in a table, by category, according to the information contained in the Draft Environmental Impact Statement (DEIS).
2. Each DEIS ranking is followed by the Planning Department's preferred alternative based on long term planning (30 to 50 years).

It is important to keep in mind that no matter which alternative is selected, it will likely be at least 10 years before it is completed, so it is essential that the selected alternative not be one that will be obsolete the day that it is finished. In some cases, our conclusion for the best alternative based on long range planning in a particular category is different than the alternative that ranked highest based on the 2020 information in the DEIS.

## **ELIMINATION OF WEAK PROPOSALS**

The following alternatives were eliminated from further consideration by the Ottawa County Planning Department:

### **No Action**

Based on the traffic analysis of year 2020 traffic volumes in the DEIS, this alternative will result in increased highway congestion and a Level of Service (LOS) of “E” and “F” during peak periods. The LOS refers to the average amount of delay experienced by vehicles at an intersection. LOS “A” indicates free flow traffic conditions while LOS “F” indicates intersection failure. Thirty of the 42 intersections will operate at a LOS of “F” during one or both of the peak periods in the year 2020.

### **2005 TSM (Transportation System Management)**

This alternative cannot be used as a stand alone option and is meant to be a short-term solution to ease traffic congestion prior to construction of a selected alternative. The option of Transportation System Management will help the traffic flow by improving signals and limiting access in the short term, but will not change the volume of traffic or adequately plan for the future. This option should be used in conjunction with a separate stand alone solution.

### **2020 TSM (Transportation System Management)**

This alternative cannot be used as a stand alone option. Based on the traffic analysis of year 2020 traffic volumes in the DEIS, this alternative will result in 18 of the 42 intersections experiencing a LOS of ‘F’ during the evening peak hour. The option of Transportation System Management will help the traffic flow by improving signals and limiting access in the short term, but will not change the volume of traffic or adequately plan for the future. This option should be used in conjunction with a separate stand alone solution.

### **Alternative F**

This alternative is not practical due to there is no connector north of Holland and will not decrease demand on existing US-31 enough to attain an acceptable LOS on existing US-31.

**Alternative J1**

This alternative was eliminated because the Planning Department felt that it was just a weaker duplication of portions of Alternative A and Alternative F/J1.

## **PUBLIC COMMENT**

### **Numerical Ranking Of Choices For The Best Alternative**

<b>Alternatives</b>	<b>Public Opinion</b>	<b>Ranking</b>
F/J1	Opposition/Support	Cannot be Ranked
F1/F3	Opposition/Support	Cannot be Ranked
A	Opposition/Support	Cannot be Ranked
P	Opposition/Support	Cannot be Ranked
P1r	Opposition/Support	Cannot be Ranked
R	Opposition/Support	Cannot be Ranked

If a decision were to be made based solely on public opinion, it would be very difficult to select a preferred alternative. The communities that will be directly impacted by the location of US-31 have all stated that they do not want the freeway in their “backyard.” While most people agree that something needs to be done to alleviate the traffic problems on existing US-31, there is no community consensus for which alternative is best. Existing citizen groups, local units of government, and other community organizations have gone on record to support their distinct, yet preferred alignments. For this reason, the alternatives cannot be ranked based on public opinion.

### **Long Range Planning (2030-2050)**

Although a preferred alignment cannot be selected at this time based on public opinion, it is the belief of the Planning Department that the vast majority of Ottawa County residents will prefer a freeway along the 120th as opposed to a freeway along the existing alignment once it is built. This opinion is based on the fact that communities in Ottawa County can and will adjust to whichever alignment is ultimately selected, whether it be the existing alignment or a bypass. However, in 30 to 50 years and even further beyond, the traffic scenario in Ottawa County will be such that if the existing alignment is selected, it will not be adequate to handle the immense

volume of cars since Alternative A does not divert any traffic. We will then be faced with the difficult task of trying to build a freeway to divert vehicles onto another route. Then, the cost and social implications of acquiring the right-of-way necessary to construct a freeway 50 years from now will be enormous due to the projected development that would have taken place during that time. For this reason, it is logical to think that 50 years from now, residents of Ottawa County will commend us for making the difficult decision of building a new freeway along 120th Avenue and preparing Ottawa County for the growth they will surely have rather than admonish us for choosing an alignment that is sure to fail again in the future forcing the next generation to grapple with this issue yet again.

## **TRANSPORTATION**

### **Numerical Ranking Of Choices For The Best Alternative**

<b>Alternatives</b>	<b>Traffic Use —</b>	<b>LOS on New Alignment in 2020</b>	<b>LOS on Existing US-31 in 2020</b>	<b>Ranking</b>
F/J1	17,400	A or B	C or D	1 (First)
P	17,400	C or D	C or D	2
P1r	17,400	C or D	C or D	2
F1/F3	17,000	C or D	C or D	3
A	83,000	C or D	N/A	4
R	16,000	E	C or D	5 (Last)

(Pages 3-12, 3-15, 3-21, 3-24, 3-28)

### **Design Year 2020**

The most important component of any transportation project is the ability to efficiently move traffic. Using this standard, Alternative F/J1 is by far the superior choice if considering the level of service and total overall traffic diversion. According to the DEIS, Alternative F/J1 will be used by 17,400 vehicles a day and traffic on the F/J1 alignment will operate at a Level of Service (LOS) of A or B while traffic on the existing US-31 will operate at a LOS of C or D. Alternative A would have the most traffic use at Grand Haven and some other specific points along the corridor, but building a 4 lane freeway on the existing alignment will not lower traffic counts due to the fact that no vehicles are diverted. Traffic will move at a faster rate of speed but according to the DEIS, a LOS of A or B will not be attainable due to the large volume of vehicles on the road.

### **Long Range Planning (2030-2050)**

Not only is F/J1 the best alternative to alleviate total overall traffic, and provide the best level of service for the design year 2020, it also proves to be the best when planning for 2030-2050. Alternative F/J1 will offer travelers passing through the county an uninterrupted north-south route meaning that vehicles traveling to destinations north of Grand Haven will no longer have to

mix with local traffic. This is especially important when you consider that truck transportation has increased 137% from 1990 to 1996. Construction of a bypass will divert trucks that are traveling through the county on US-31, easing congestion and degradation of the road surface as well as increasing safety on the road. This is especially important when considering the economic growth that is occurring in the Allendale, Coopersville, Zeeland and Holland areas. These local economies will require an uninterrupted north-south route to serve their commercial needs. The goal of any highway system is to move traffic as efficiently and safely as possible and an uninterrupted north-south route from the Holland area to Interstate 96 will accomplish this.

A second advantage to Alternative F/J1 when planning for 2030-2050 is the fact that this alternative is centrally located making it easily accessible to all county residents. This is especially important since the rural areas of the County are experiencing tremendous population growth with emerging commercial/ industrial centers that are pushing towards the central rural corridor. This population and economic growth will facilitate the need for an uninterrupted north-south route that is more centrally located.

Last, if highway capacity is expanded through corridor "A" with Federal Funds, the only expansion possible in the future would be to widen the same strip again. Building additional capacity through Corridor "F/J1" now, provides for two optional channels for traffic expansion in the future.

The State, the County, and local communities must work together to ensure that travel within the county is safe and efficient and contributes to a high quality of life for residents and visitors. There must be a balance between access to land use and the need to move traffic along major highways. Long range travel routes must be available throughout the area to connect major concentrations of employment, shopping, and homes. Alternative F/J1 is the clear choice for achieving these goals.

## COST

### **Numerical Ranking Of Choices For The Best Alternative**

<b>Alternatives</b>	<b>Construction Cost</b>	<b>Ranking</b>
P1r	\$434. 1 Million	1 (First)
R	\$438. 1 Million	2
P	\$468. 4 Million	3
A	\$577. 2 Million	4
F1/F3	\$578. 6 Million	5
F/J1	\$587. 5 Million	6 (Last)

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### **Design Year 2020**

If a decision for the preferred alignment had to be selected based solely on construction cost for the design year 2020, Alternative P1r is the least expensive to build. However, this is misleading since Alternative P1r is not a freeway option therefore it is logical that this alternative is the least expensive to construct. Similarly, Alternatives P and R, neither of which are freeway options, have construction costs within 7.9% of Alternative P1r. The construction costs for Alternatives F/J1, A, and F1/F3 are within 1.7% of each other but are more expensive than the other three Alternatives since they are all freeway options.

### **Long Range Planning (2030-2050)**

#### **Numerical Ranking of Choices for the Best Alternative**

<b>Alternatives</b>	<b>Rate of Return on Investment</b>	<b>Ranking</b>
A	\$2.78	1 (First)
F1/F3	\$1.79	2
F/J1	\$1.10	3
R	\$0.56	4
P1r	\$0.51	5
P	\$0.42	6 (Last)

(Page 5-106)

Possibly more important than the construction costs of each Alternative is the Rate of Return on Investment. The Rate of Return on Investment refers to the amount of benefit received for each \$1.00 of investment. By definition, any option that has a return on investment greater than \$1.00 has benefits that outweigh the cost and therefore is considered a viable option. Alternatives F/J1, A, and F1/F3 all have return rates of greater than \$1.00.

**Numerical Ranking of Choices for the Best Alternative**

<b>Alternatives</b>	<b>Tax Base Loss</b>	<b>Ranking</b>
R	\$461,000	1 (First)
P	\$534,600	2
P1r	\$573,500	3
F/J1	\$633,400	4
A	\$1.66 Million	5
F1/F3	\$2.46 Million	6 (Last)

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Another measure of the costs associated with the various options is the tax base loss that will occur as a result of each alternative. The tax base loss is due to the acquisition of properties for construction of the various routes. Alternatives A and F1/F3 will have the greatest loss of tax base and clearly have the most detrimental financial impact.

## **SOCIAL**

### **Numerical Ranking Of Choices For The Best Alternative**

<b>Alternatives</b>	<b>Number of Residences Impacted</b>	<b>Ranking</b>
F1/F3	183	1 (First)
A	188	2
P	194	3
F/J1	205	4
P1r	211	5
R	292	6 (Last)

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### **Design Year 2020**

The impact upon residences is perhaps the most personal of all the impacts from this project. With the exception of Alternative R, the options are relatively close effecting between 183 and 211 residences.

### **Long Range Planning (2030-2050)**

Each of the alternatives include improvements to the existing US-31 alignment such as the addition of another lane of traffic. Although this will have an impact on the Grand Haven community, putting a freeway or 8 lane boulevard through the city will have a more pronounced impact to the established community than a freeway would have on a relatively rural area - not that it isn't significant.

As development continues into the rural corridor it will become increasingly difficult to plan for future transportation routes and make any future right of way acquisition very difficult. If we prolong building a freeway along 120th Avenue, the delay will become very costly. First, the cost of acquiring right-of-way will increase as time goes on due to the natural development along the corridor. Second, as more homes and businesses are built in the area, the social impact of displacing the increased number of buildings accumulates. Growth will come with or without the bypass. It will be a lot easier to build a highway now, when land is available, than years from now when more homes and businesses may have to be displaced.

## **ECONOMIC**

### **Numerical Ranking Of Choices For The Best Alternative**

<b>Alternatives</b>	<b>Number of Businesses Impacted</b>	<b>Ranking</b>
R	147	1 (First)
P1r	149	2
F/J1	158	3
P	186	4
F1/F3	217	5
A	236	6 (Last)

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### **Design Year 2020**

Alternatives R, P1r, and F/J1 will impact the least amount of businesses - between 147-158. Conversely, Alternative A will have by far the greatest impact on the local economy at 236 businesses impacted and approximately 1,370 jobs temporarily or permanently impacted.

### **Long Range Planning (2030-2050)**

When planning transportation routes for the business community, we must consider the needs of emerging commercial centers in the County. For example, the Allendale, Coopersville, Zeeland and Holland areas are experiencing tremendous economic growth that is projected to continue well into the future. These areas will have an increased need for an uninterrupted north-south route to serve their commercial districts in the most efficient manner possible.

## **FARMLAND**

### **Numerical Ranking Of Choices For The Best Alternative**

<b>Alternatives</b>	<b>Acreage of Farmland Lost</b>	<b>Ranking</b>
P1r	92	1 (First)
P	92	1
R	135	2
A	169	3
F1/F3	462	4
F/J1	830	5 (Last)

(Pages 5-34, 5-36)

### **Design Year 2020**

According to the DEIS, Alternative R will have minimal impact to farmland from construction due to its location on the existing alignment of 120th Avenue. However, this alternative is an improved road with unlimited access and it is the Department's belief that this alternative will incite the most pressure for development. For this reason, this alternative will likely have the most detrimental impact to farmland in the long term. Alternative R, P1r, P, and Alternative A all have minimal impact to farmland in Design Year 2020. However, it is the belief of the Planning Department that Alternative A will have such a negative impact on the character of the Holland and Grand Haven communities that it could prompt a wave of flight to more rural areas of the County.

According to MDOT estimates, Alternative F/J1 will consume approximately 830 acres of farmland. It is important to note that this represents approximately 0.0059 of the total Prime Farmland and 0.0019 of the total Unique Farmland in the study area. Additionally, according to the Water Resources Institute of Grand Valley State University Analysis of Land Use, the projected loss of agricultural land due to residential development is projected to be 17,332.5 acres countywide by the year 2020. The amount of residential growth projected for Ottawa County cannot occur without substantial changes to the existing landscape.

In 1978, agriculture accounted for 55% of land use in Ottawa County. By 1992, the percentage had dropped to 47%. This translated to a loss of 27,947 acres or 44 square miles. From 1978 to 1992, approximately 3 square miles per year were converted from agriculture to some other use. Alternative F/J1 will consume approximately 45% less farmland than that which will be lost during any given year due to the natural development of the County.

### **Long Range Planning (2030-2050)**

A highway itself will not harm agriculture in Ottawa County in the long term. That can only come from local units of government approving rezoning requests prompting unchecked growth. The loss of farms from continuing residential development can be best managed through concerted efforts by local units of government.

## **ENVIRONMENTAL**

### **Numerical Ranking Of Choices For The Best Alternative**

<b>Alternatives</b>	<b>Acreage of Wetland Lost</b>	<b>Ranking</b>
R	48	1 (First)
A	54	2
F1/F3	59	3
P1r	61	4
P	61	4
F/J1	90	5 (Last)

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### **Design Year 2020**

If a decision was made based solely on wetlands, Alternative R will have the least impact to Wetlands in design year 2020. However, since it is standard policy of the MDEQ to mitigate any disturbance to existing wetlands at a ratio of 2:1 (meaning that two acres of wetlands must be created for every 1 acre disturbed) for forested wetlands and 1.5:1 for shrub and emergent wetlands, any wetlands that are disrupted during the construction of any of the alternatives will be more than accommodated for. Any of the alternatives will have an effect on wetlands, but the effects will be mitigated.

### **Long Range Planning (2030-2050)**

According to the DEIS, any disturbances to the natural environment as a result of any of the alternatives will be very minor and can be further minimized through route selection, vegetation management, and engineering design features. In addition, the DEIS states that the freeway options may have a positive effect on air quality because they will allow vehicles to travel more efficiently thereby reducing idling which greatly contributes to air pollution. There may also be a corresponding reduction in energy usage.

## **SECONDARY IMPACTS**

Ottawa County is experiencing tremendous growth that is predicted to continue well into the future. The 1997 Census counted 220,403 people in Ottawa County, and the projection for 2020 is 338,450 - an increase of 54%. Allegan County will grow by 23% and Muskegon County by 11%. Such regional growth will have a direct effect on future transportation needs in the County.

It is the belief of the Planning Department that Alternative R will have the most detrimental secondary impacts based on the fact that this alternative will transform 120th Avenue into a unlimited access boulevard. By not controlling access into the community, development is free to spring up all along the improved corridor. With the infrastructure in place and an increased volume of traffic utilizing the route, it will be a prime location for strip malls, subdivisions, gas stations, and fast food restaurants. Conversely, a freeway with controlled access will experience most development pressure at access ramps; and this development can be controlled or restricted through zoning by the local unit of government.

Concern has been raised over the fact that the Ottawa County Development Plan discourages major road improvements into rural areas. It is important to note that this plan was written in 1992 making it 7 years old. It must be conceded that the Planning Department and Planning Commission have been neglectful in updating the document. At the time this document was written, assumptions and recommendations were made based upon the best information that was available at the time. The Planning Department now has the benefit of a comprehensive Environmental Impact Statement containing crucial information needed to make an informed decision.

Michigan State law dictates that local governments are responsible for determining land use policies and zoning ordinances for their jurisdictions. Therefore, concerns about long term changes in land use need to be appropriately addressed by the various local governments within the US-31 alternative corridors. In 1990, the US Census counted 187,768 people in 66,624 housing units in Ottawa County. However a build out analysis of existing zoning showed that

local zoning could accommodate 782,309 people in 269,762 housing units. Furthermore, a build out analysis of future land use in Master Plans shows that there will be zoning for 971,852 people in 335,121 housing units. These numbers clarify the fact that local zoning will determine the secondary impact of any decision. Nearly 90% of the total land in the county is zoned or planned for residential uses of varying densities. Similarly, the county is currently zoned for 7,780 acres of commercial development.

## **SELECTION OF PREFERRED ALTERNATIVE**

By carefully analyzing each of the Alternatives by category, it is clear that the best choice to alleviate traffic and safety problems is Alternative F/J1. F/J1 involves the construction of a new limited access freeway bypass around the east and north sides of the Holland/ Zeeland area, a new limited access freeway east of existing US-31 from just north of Holland to I-96, and a controlled access boulevard along existing US-31 from I-196 to M-104. The new freeway will provide two lanes of uninterrupted travel in each direction, and the boulevard on existing US-31 will provide three lanes of travel in each direction in urban areas and two lanes of travel in each direction in rural areas. It will also provide a new bascule or fixed span bridge in Grand Haven.

Alternative F/J1 is the only option that will operate at a Level of Service (LOS) of A or B and it diverts the greatest amount of traffic off the existing alignment. It is a centrally located, uninterrupted, limited access freeway that is specifically designed to move large amounts of traffic in a safe and efficient manner. Although transportation and safety are by far the most important considerations when selecting a preferred alternative, they are not the sole considerations. The cost to construct Alternative F/J1 is within 1.7% of the other freeway alternatives and has a rate of return on investment of greater than \$1.00. Additionally, the tax base loss from Alternative F/J1 is approximately \$1.8 million less than the alternative with the greatest tax base loss. With the exception of Alternative R, all the options are relatively close in the number of residences impacted - between 183 and 211 residences. Alternatives R, P1r, and F/J1 will impact the least amount of businesses - between 147-158. Although Alternative F/J1 disrupts the largest amount of farmland, farmland is already being impacted by growth, and this alternative represents a loss of only 0.0059 of the total Prime Farmland and only 0.0019 of the total Unique Farmland in the study area. Projections also show that this land is susceptible to urban influence with or without a highway. Last, all of the alternatives have an impact on wetlands although any impacts will be mitigated.

It is also the Planning Department's recommendation that improvements be made immediately to the existing US-31 alignment in the form of Transportation System Management. Further, the Department recommends that another bridge be constructed across the Grand River at 120th

Avenue. The construction of a two-lane bridge should begin immediately with foundations that are adequate to build a four-lane freeway.

## **CLOSING**

Under any proposal chosen as the preferred alignment, the Ottawa County Planning Department, on behalf of the Planning Commission and Board of Commissioners, is committed to coordinating efforts to minimize the effects that the final chosen route will have on local communities. These efforts should include joint meetings between local, County, and State officials to discuss street access, freeway ramps, buffers, and other design considerations. Other efforts will be made to assist with general land use planning, design charrettes, strategic planning, and changes to Master Plans and Zoning Ordinances.

The Planning Department is also committed to assisting with the potential implementation of constructed wetlands technology that they have been demonstrating to minimize the effects of stormwater runoff and will work with interested communities to implement concepts and programs to promote rural preservation or urban vitality - whichever the case may be. The Planning Department will also assist communities in obtaining financial assistance from MDOT and other funding sources to implement these initiatives.

<b>Alternatives</b>	<b>Amount of Traffic Diverted</b>	<b>Ranking</b>
P1r	17,400	1 (First)
P	17,400	1
F/J1	13,400	2
F1/F3	13,400	2
R	8,000	3
A	NA	4 (Last)

<b>Alternatives</b>	<b>Number of Major Impacted Residences</b>	<b>Ranking</b>
R	36	1 (First)
F1/F3	96	2
F/J1	111	3
A	111	3
P	129	4
P1r	142	5 (Last)

<b>Alternatives</b>	<b>Number of Major Impacted Businesses</b>	<b>Ranking</b>
P1r	35	1 (First)
F/J1	38	2
P	53	3
R	74	4
F1/F3	85	5
A	113	6 (Last)

<b>Alternatives</b>	<b>Number of Total Major Impacted</b>	<b>Ranking</b>
R	116	1 (First)
F/J1	183	2
P1r	190	3
P	194	4
F1/F3	201	5
A	240	6 (Last)