

VERMONT ENVIRONMENTAL BOARD
10 V.S.A. §§ 6001-6092

Re. Vermont Agency of Transportation (Rock Ledges)
Declaratory Ruling #296

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER
(Preliminarily **Planned Projects**)

This decision pertains to whether the removal or alteration of certain median and side rock ledges along Interstates 89 and 91 ("Interstates") requires a permit pursuant to 10 V.S.A. Chapter 151 ("Act 250").

As explained below, the Board concludes that the "Preliminarily Planned Projects" as described in Re: Vermont Agency of Transportation (Rock Ledges), Declaratory Ruling #296, Findings of Fact, Conclusions of Law, and Order (Third Revision) (March 28, 1997) ("Third Revision Decision"), and as further described herein do not require an Act 250 permit.

I SUMMARY OF PROCEEDINGS

On July 19, 1993, District #5 Coordinator Edward Stanak and then District #3 Coordinator Robert Sanford jointly opined in Advisory Opinion 5-93-S that the removal or alteration of certain median and side rock ledges (collectively "Ledgework") along the Interstates did not need an Act 250 Permit.

On May 31, 1994, then Board General Counsel Stephanie J. Kaplan issued Advisory Opinion #EO-93-288 in which she determined that the Ledgework required an Act 250 permit.

On June 30, 1994, the Agency of Transportation ("AOT") filed a Petition for Declaratory Ruling ("Petition").

On June 15, 1995, the Board issued Findings of Fact, Conclusions of Law and Order. On July 14, 1995, XT filed a motion to alter. On November 13, 1995, the Board issued a revised Findings of Fact, Conclusions **of Law** and Order.

On December 13, 1995, AOT filed a second motion to alter. On April 12, 1996, the Board issued a second revised Findings of Fact, Conclusions of Law and Order.

On May 13, 1996, AOT filed a third motion to alter and Representative Dean Corren, a party in this Petition, filed a motion to alter.

On March 28, 1997, the Board issued the Third Revision Decision

On May 1, 1997, the Board assigned new staff counsel to this Petition

On January 1, 1998, Marcy Harding became Chair of the Board

On June 11, 1998, AOT complied with the Third Revision Decision's order that further information be filed regarding the Preliminarily Planned Projects

On July 17, 1998, Chair Harding issued an order which allowed parties to file evidence or request a hearing in response to AOT's June 11, 1998 filing. No evidence was filed in response, nor were there any requests for a hearing.

On September 8 and October 28, 1998, the Board deliberated relative to the issue of jurisdiction over the Preliminarily Planned Projects.

II SUMMARY OF THE BOARD'S THIRD REVISION DECISION

AOT has identified twelve separate projects. one is already the subject of a valid Act 250 Permit ("Thetford-Fairlee Project"); five are complete or ongoing ("Complete/Ongoing Projects"), and six are in the preliminary planning stages or otherwise neither complete nor ongoing ("Preliminarily Planned Projects"). The Third Revision Decision collectively defined these twelve projects as the "Ledgework "

The Third Revision Decision concluded that an Act 250 permit was required for the Thetford-Fairlee Project, but not required for the Complete/Ongoing Projects. With regard to the Preliminarily Planned Projects, the Board concluded that the record did not contain sufficient evidence for the Board to conclude whether the Preliminarily Planned Projects required an Act 250 Permit. Therefore, the Board allowed AOT until June 10, 1998 to file supplementary information regarding the Preliminarily Planned Projects

On June 11, 1998, AOT complied with the Third Revision Decision and filed extensive and detailed analyses regarding the Preliminarily Planned Projects

III ISSUE

Based on the Third Revision Decision, the Interstates constitute a pre-existing development pursuant to IO V S.A. § 608 I(b) and EBR 2(O). Therefore, the sole issue with regard to the Preliminarily Planned Projects is whether they constitute a substantial change to a pre-existing development pursuant to IO V S.A. § 608 I (b) and EBR 2(G)

IV FINDINGS OF FACT

- 1 The Interstates were built for state purposes prior to June 1, 1970 and consist of more than ten acres.
- 2 AOT plans to or already has removed or otherwise altered certain rock ledges along the Interstates.
- 3 The Preliminarily Planned Projects are identified as follows
 - a.) Hartford-Newbury (AOT Project #091-2(6));
 - b.) Hartford-Sharon-Royalton (AOT Project #089-1(8));
 - c.) St. Johnsbury-Lyndon (AOT Project #91-3(5));
 - d.) Lyndon-Derby (AOT Project #091-3(6));
 - e.) Waterford (AOT Project #093-1(8)); and
 - f.) Ryegate-St. Johnsbury (AOT Project #91-2(8)).
4. The Hartford-Newbury project ("HN project") includes the northbound and southbound ramps and roadways on Interstate 91 from approximately mileage marker ("MM") 69.96 extending northerly approximately 41 miles to MM **I 10. 96** at the Newbury/Ryegate Town Line ("HN project area") This portion of Interstate 91 was completed between 1967 and 1974.
- 5 The rock cuts in the HN project area were excavated at a slope of 4 vertical ("V") to 1 horizontal ("H"), or roughly 75 degrees. The 4V to 1H ratio was commonly **used** in Vermont at the time of construction. Vegetation was removed at a distance of approximately 6 meters from the crest of the rock slopes and drainage constructed at the toes of the slopes. Catch ditches were **established** at the base of the slopes where there was sufficient room between the rock cut and the roadway.
- 6 In most instances, a clear zone of over 9 meters was constructed between the roadway (nearest traveled lane) and the face of the rock cuts. Exceptions include median areas where rock was **left** in place as a barrier between northbound and southbound lanes, and where the nearest traveled lane may also serve as a ramp Presplit blasting was used to create the rock cuts
- 7 The HN project area rocks are mainly strong, hard and durable. The stability of the rock slopes is controlled by the discontinuities in the rock, that is, the joints, bedding planes, faults, and blasting fractures, rather than by the strength of the rock mass. The strength of the rock mass is far greater than the stresses produced by the construction of the slopes.

- 8 The rock falls that do occur are a result of individual blocks and semi-intact masses of rock sliding along discontinuities or being released to topple or fall by the discontinuities. The rock falls that have occurred have not resulted from the failure of intact pieces of rock. In the 25 years since the rock cuts were excavated, many of the discontinuities have opened up and a number of blocks of rock have worked loose due to ice jacking, water penetration, soils infilling, vegetation growth and vibrations from heavy traffic. Some of these loosened blocks now pose a risk to the traveling public.
- 9 Using a Rockfall Hazard Rating System ("RHRS"), 13 rock slopes are to be repaired in the HN project area. The options for the repairs vary from scaling to catch fences to laying the slopes back, and the various combination of these options. The amount of rock ledge to be removed as part of the HN project ranges from a low of 51,395 cubic yards ("cy") to a high of 85,590 cy.
- 10 Ledge rock removal can consist of hand and machine scaling, trim blasting or laying back the ledge face to reduce the 75 degree incline. Securing can include rock bolting and lashing, cable netting, and fencing at the bottom of the slope to catch dislodged rocks.
- 11 During the period of time that the 13 rock slopes are to be altered, temporary erosion control measures will be used. These measures will comply with AOT Standard Specifications Section 105.22 and 105.23 which pertain to erosion control during construction. These measures include restrictions on how much earth may be exposed at any given time; early installation of culverts; seeding of earth slopes; and the temporary use of sedimentation basins, berms, slope drains, and hay bale check dams. Post-alteration, permanent erosion control measures such as seeded slopes and existing drainage systems will be used. There will be no net increase in impervious areas, and all existing area drainage flows will be maintained.
12. Construction of the HN project, and any necessary traffic delays or diversions, will be in accordance with state and federal highway specifications. The HN project will not have an adverse effect on emergency vehicles and trucks. Through access in the HN project area will be maintained by detours and lane closings during construction. The HN project will enhance the safety of traffic through the HN project area.
- 13 The HN project area consists of 43 roadcuts made during initial construction. Roadcuts are a common feature within the mile wide Interstate 91 scenic corridor.

that runs north/south within the Connecticut River Valley Region. The roadcuts constitute unique and prominent features that are appreciated by those traveling along the corridor. Other features of the corridor are its rolling forested hillsides, open fields, and a number of small side valleys which permit long and short range views of the region's overall landscape.

14. Of the 13 rock slopes to be repaired, 9 of these will require some form of protective barrier and/or mechanical devices to maintain the structural integrity of the ledges and to prevent rock falls from reaching the travel lanes. Once the work is completed and the necessary rock fall barriers are in place, the effects will be largely unnoticeable since there will be no remaining visual reference within the roadcuts to enable comparisons of the rock slopes before and after repairs are made.
15. The designated rock spoil area will be in a depressed section of the highway median below the eye level of passing motorists. The spoil piles will be shaped and rounded to fit the character of the existing terrain.
16. The HN project is not out of character with the terrain of the corridor and the individual rock cuts. The HN project will not have an adverse effect on nearby scenic vistas from the highway and beyond the rock cuts. Reducing the slope angle of ledge faces and laying them back will create a slightly wider vista, the subtle effect of which will go largely unnoticed by the motoring public.
17. The ledges after the completion of the HN project, the devices used to stabilize the ledges, and the devices and measures put in place to protect the motoring public are not out of character on Interstate 91.
18. In this instance, the use of rockfall catch fences along the base of rock slopes will not have an adverse effect on aesthetics. High speed driving will reduce the time that these fences can be observed. Their placement within the highway is similar to the use of guardrails such that the rockfall catch fences will not be out of character with the surrounding area.
19. The HN project area does not include any rare or irreplaceable natural or fragile areas, nor is there any critical habitat. The HN project will not have any adverse effects on the environment under the 10 Act 2.50 criteria.
20. The Hartford-Sharon-Royalton project ("HSR project") identifies six rock slope locations on Interstate 89 between MM 0 00 and MM 22 00 for alteration ("HSR

project area”) The HSR project will result in the removal of between 27,660 cy and 43,620 cy of rock. The HSR project may include a seventh location, at MM 17 IO-17.40 on the north barrel outside offset. The amount of rock to be removed at this seventh location is between 100 and 200 cy. Even if 200 cy is removed, it is only an addition of 72% to the low range estimate of 27,660 cy

- 21 The HSR project will use rock slope mitigation methods similar to those used in the HN project. These are grouped in three categories. (1) protection methods, (2) stabilization methods, and (3) warning methods
- 22 Protection methods include catchment ditches, wire mesh nets, catchment fences, and barriers. Stabilization methods may be either removing rock which shows signs of instability or installing hardware designed to counteract driving forces acting on the rock. Stabilization methods include resloping, trimming, scaling, rock bolting, dowels, tie-back walls, shotcrete, buttresses, and draining. Warning methods include warning signs and warning fences. The HSR project will not have any adverse effects on the environment under the 10 Act 250 criteria
- 23 The St. Johnsbury-Lyndon project (“SJL project”) includes the northbound and southbound ramps and roadways on Interstate 91 from approximately MM 128.91 in St. Johnsbury extending northerly approximately 11 miles to MM 140.0 in Lyndon (“SJL project area”) This portion of Interstate 91 was completed in 1975
- 24 The rock cuts in the SJL project area were excavated at a slope of 4 V to 1 H. Using the RHRS, repairs are recommended for 5 rock slopes in the SJL project area. The removal methods to be used do not differ from the methods to be used in the HN project and the HSR project. The SJL project will result in the removal of between 32,100 cy and 64,200 cy of rock at the 5 locations. The SJL project will not have any adverse effects on the environment under the 10 Act 250 criteria
- 25 The Lyndon-Derby Line project (“LDL project”) identified 7 locations along the northbound portion of Interstate 91 as needing repair based upon the RHRS. The seven locations are as follows, MM 141.70 to 141.80; MM 142.55 to 142.70, MM 143.20 to 143.35, MM 144.50 to 144.60; 144.65 to 144.70; MM 146.35 to 146.45, and MM 147.55 to 147.80 (“LDL project area”). The removal methods do not differ from the methods to be used in the HN project and the HSR project. The LDL project will result in the removal of between 850 cy and 1,700 cy of

rock at the 7 locations. The LDL project will not have any adverse effects on the environment under the 10 Act 250 criteria.

26. The Waterford project includes the northbound and southbound ramps and roadways on Interstate 93 from the New Hampshire border mile marker MM 0 00 to the interchange with Interstate 91 at MM 1110 (“Waterford project area”). This portion of Interstate 89 was completed in 1982.
27. The rock cuts in the Waterford project area were excavated at a slope of 4 V to 1 H. Based on the RI-IRS, repairs are recommended for 4 rock slopes in the Waterford project area. The removal methods to be used do not differ from the methods to be used in the HN project and the HSR project. The Waterford project will result in the removal of between 615 cy and 1,230 cy of rock at the 4 locations. The Waterford project will not have any adverse effects on the environment under the 10 Act 250 criteria.
28. The Ryegate-St. Johnsbury project (“RSJ project”) includes the northbound and southbound ramps and roadways on Interstate 91 from approximately MM 110 96 in Ryegate extending northerly approximately 18 miles to MM 128.9 1 in St. Johnsbury (“RSJ project area”). This portion of Interstate 91 was completed between 1974 and 1978.
29. The rock cuts in the RSJ project area were excavated at a slope of 4 V to 1 H. Based on the RHRS, repairs are recommended for 16 rock slopes in the RSJ project area. The removal methods to be used do not differ from the methods to be used in the HN project and the HSR project. The RSJ project will result in the removal of between 18,780 cy and 31,060 cy of rock at the 16 locations. The RSJ project will not have any adverse effects on the environment under the 10 Act 250 criteria.

V. CONCLUSIONS OF LAW

A. Pre-Existing Development

Pre-existing developments are exempt from the Act 250 permit requirement unless there has been or is planned a substantial change to them. 10 V. S. A. § 6081(b) and EBR 2(A)(S). The Interstates are a pre-existing development. See Third Revision Decision at 10. Therefore, the construction of the Preliminary Planned Projects will require an Act 250 permit only if they constitute a substantial change to the Interstates.

B SUBSTANTIAL CHANGE

EBR 2(G) defines substantial change as "any change in a development or subdivision which may result in significant impact with respect to any of the criteria specified in 10 V S.A. § 6086(a)(1) through (a)(10)" See In re Barlow, 160 Vt 513, 521-22 (1993); In re Orzel, 145 Vt. 355, 360-61 (1985).

The Board applies a two-part test to determine whether there will be a substantial change. First, there must be a cognizable change to the pre-existing development. Second, if a cognizable change is found, an Act 250 permit is required if the change has caused or may cause a significant impact under one or more of the ten criteria. Re. David Enman (St. George Property), Declaratory Ruling #326 (Dec. 23, 1996); Re: L.W. Haynes, Declaratory Ruling #192 at 7 (Sept. 5, 1987) The Board need only find that a change may result in significant impact, not that a change has resulted or will result in significant impact. However, the impact that may result must be significant In re Barlow, supra, at 521-22

1 cognizable change

Repair or routine maintenance is not a cognizable change under EBR 2(G). Re: Agency of Transportation (Leicester Route 7), Declaratory Ruling #153 at 4 (June 28, 1984) and Re: Windsor Correctional Facility, Declaratory Ruling #151 at 6 (May 9, 1984). Such activity does not alter the existing development. Rather, it prevents or eradicates alteration to an existing development which has occurred or would otherwise occur over time through normal wear and tear.

If the Preliminary Planned Projects are repair or routine maintenance to the Interstates, then an Act 250 permit is not required. If the Preliminary Planned Projects are not repair or routine maintenance, then the Board continues with its substantial change analysis.

The following activities are not repair or routine maintenance: new pavement, guardrail replacement and elimination or decrease in pull-offs (Re: Agency of Transportation, Declaratory Ruling #298 (May 9, 1995)); an upgrade to an historic condition (Re: Town of Wilmington, Declaratory Ruling #258 at 12 (June 30, 1992)); the replacement of leach fields with a different sewage disposal system for a correctional facility (Re: Windsor Correctional Facility, supra); and the widening of U.S. Route 7 to create a 30 foot wide clear zone (Re: Agency of Transportation (Leicester Route 7), Declaratory Ruling #153 (June 28, 1984)) By contrast, the restoration of a washed out

road to its original condition is repair or routine maintenance Re: Product &,
Declaratory Ruling #168 (Apr 10, 1985).

In the Third Revision Decision, the Board concluded that the Ledge work is not merely repair or routine maintenance.

Rather, the Board finds that the Ledge work is an upgrade to the Interstates. It is not simply an effort to correct the effects of normal wear and tear. Nor is it an effort to protect the Interstates from such effects. Rather, it is designed to change the Interstates to improve driver safety and reduce future maintenance. The Ledge work is not focused on the original condition, character or make-up of the Interstates. It is intended to and will result in a cognizable change to the Interstates.

Third Revision Decision at 11

Likewise, based on the findings of fact herein, the Board again concludes that the Preliminary Planned Projects are not merely repair or routine maintenance. Rather, the Preliminary Planned Projects will result in a cognizable change to the Interstates

2. potential for significant impact

Having found that the Preliminary Planned Projects will result in a cognizable change, the Board next determines the potential for significant impact

The Board has not specifically defined the term "significant." In re Barlow, 160 Vt. at 522. The determination as to whether there is a potential significant impact is "inextricably fact bound and not susceptible to the application of preset definitional rules." Id.

In the Third Revision Decision, the Board concluded with respect to the Complete/Ongoing Projects that while there would be impacts under the criteria, none of them were sufficiently significant such that the Complete/Ongoing Projects did not constitute a substantial change to the Interstates. The Board stated:

AOT views the Preliminary Planned Projects as one project. The Board believes that such a view is correct. Consequently, the Board will consider the Preliminary Planned Projects collectively

The Board is concerned about the impacts that the Preliminarily Planned Projects will have upon streams, wetlands, soil erosion and, most particularly, the scenic beauty of the Interstates. AOT acknowledges that these projects are still in the preliminary **planning** stages. AOT has not considered aesthetics in **planning**; the Ledgework AOT candidly states that the Board "**cannot** at this time reach a decision for the [Preliminarily Planned Projects]" AOT's Proposed Conclusions of Law, at 11,#17. The Board agrees.

Based upon AOT's June 11, 1998 filing and the findings of fact made herein the Board now concludes that the Preliminarily Planned **Projects** lack the potential for significant impact under any of the Act 250 criteria. Accordingly, the Preliminarily Planned Projects do not require an Act 250 permit.

VI ORDER

An Act 250 permit is not required for the Preliminarily Planned Projects either individually or in combination.

Dated at Montpelier, Vermont this 2nd day of November, 1998

VERMONT ENVIRONMENTAL BOARD



Marcy Harding, Chair

John T. Ewing

Arthur Gibb

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