

West Virginia Parkways Authority

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SHERRY LILLY

Director of Human Resources

DAVID H. ROLLINS

Treasurer



June 17, 2021

West Virginia Parkways Authority Post Office Box 1469 Charleston, WV 25325

Dear Authority Members:

HNTB Corporation ("HNTB"), as the Consulting Engineers to the West Virginia Parkways Authority (the "Authority"), is pleased to submit to the Authority the attached 2021 Annual Report which includes this cover letter and the certifications made in this letter (collectively, the "Annual Report").

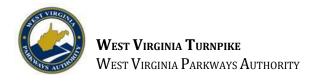
The Annual Report is delivered to you as required by relevant provisions of the Master Trust Indenture dated as of August 1, 2018, by and between the Authority and United Bank, as Trustee (the "Trustee") (the "Master Trust Indenture"). The Master Trust Indenture was amended and supplemented by that certain First Supplemental Trust Indenture dated as of August 1, 2018, by and among the Authority and the Trustee, (as supplemented and amended, the "Indenture"), in connection with the Authority's issuance of its \$166,370,000 Senior Lien Turnpike Toll Revenue Bonds, Series 2018 (the "Series 2018 Bonds") which are secured under the Indenture by a pledge of Net Toll Road Revenues as defined in the Indenture. Prior to issuance of the Series 2018 Bonds, the Authority in July 2018 defeased all of its prior outstanding Turnpike toll revenue bonds.

The Master Trust Indenture establishes various covenants with which the Authority must comply. One major covenant (often called the "Good Repair Covenant") requires the Authority to operate, maintain and keep the West Virginia Turnpike (the "Turnpike") and other Authority properties in good repair, all as more fully set forth in Section 503 of the Master Trust Indenture and U.S.C. 129(a)(3)(B). The Good Repair Covenant and several other covenants under the Master Trust Indenture require HNTB, as the Consulting Engineers for the Authority under the Indenture, to provide the Authority with an annual report on the condition of the Turnpike and to provide certain certifications to be used by the Authority in its annual budget-making process that are to be reflected and incorporated in its Annual Budget for the upcoming Fiscal Year.

This Annual Report and the certifications set forth herein are being delivered to you to satisfy those various requirements under the Master Trust Indenture and to document the Authority's compliance with such covenants

1. Annual Physical Examination and Inspection of the Turnpike; Annual Turnpike Condition Report; Certification of Compliance with Section 503 of the Master Trust Indenture and U.S.C. 129(a)(3)(B) (including the Good Repair Covenant).

In accordance with the requirements Section 503 of the Master Trust Indenture and U.S.C. 129(a)(3)(B), HNTB certifies that it has made a physical examination and inspection of the Turnpike for Fiscal Year 2020/2021 and has submitted to the Authority this Annual Report its written annual report on the condition of the Turnpike. As required by Section 503 of the Master Trust Indenture and U.S.C. 129(a)(3)(B), this Annual Report is being delivered to the Authority prior to the end of Fiscal Year 2020/2021.



This Annual Report documents, and HNTB hereby certifies, that the Authority has complied with the Good Repair Covenant and related requirements as more fully set forth in Section 503 of the Master Trust Indenture and U.S.C. 129(a)(3)(B). Specifically, and as further required by Section 503 of the Master Trust Indenture and U.S.C. 129(a)(3)(B), HNTB hereby further certifies that:

- (i) the Authority in operating the Turnpike has maintained it in good repair, working order and condition,
- (ii) the Authority has complied with the covenants set forth in the Master Trust Indenture with respect to the efficient management of the Turnpike, the proper maintenance of the properties of the Turnpike, and the making of necessary repairs, renewals and replacements thereto and thereof and the necessity for capital replacements and improvements, and
- (iii) the Authority has complied with the recommendations made by HNTB with respect to each of the foregoing items, and,
- (iv) In the judgment of HNTB, the Authority has not in any way failed to perform or comply with the covenants and agreements set forth above.
- 2. <u>Certifications Under Section 508 of the Master Trust Indenture as to Operation and Maintenance Expenses, Renewal and Replacement Costs, and Renewal and Replacement Reserve Fund Requirement, for Purposes of the Authority's Annual Budget for Fiscal Year 2019/2020.</u>

As required by Section 508 of the Master Trust Indenture and the definitions of "Annual Budget," "Operation and Maintenance Expenses", "Renewal and Replacement Costs", and "Renewal and Replacement Reserve Fund Requirement" as set forth in Section 101 of the Master Trust Indenture, respectively, HNTB as Consulting Engineers HNTB hereby certifies that the following amounts are necessary to be included in the Annual Budget and expended in Fiscal Year 2021/2022 for the following purposes:

- (i) Operating and Maintenance Expenses: \$49,816,000;
- (ii) Renewal and Replacement Costs: \$20,572,000; and
- (iii) Renewal and Replacement Reserve Fund Requirement: \$20,572,000.

Accordingly, HNTB recommends that the Authority include these amounts in its Annual Budget for the Fiscal Year ending June 30, 2022 ("Fiscal Year 2021/2022"). The body of the Annual Report contains additional information and details concerning these recommendations.

It should be noted that some Renewal and Replacement projects begun in and budgeted for Fiscal Year 2020/2021 could not be completed before the end of that Fiscal Year, and will be completed after the end of such Fiscal Year. The funds budgeted for the Renewal and Replacement Costs for such projects will be carried over and expended to complete those projects after the end of Fiscal Year 2020/2021. HNTB certifies that such an approach is reasonable under all the circumstances and is consistent with the Authority's Good Repair Covenant and related obligations under Sections 503 and 23 U.S.C. 129(a)(3)(B) and 508 of the Master Trust Indenture. Such carried-over funds and costs are not included in HNTB's recommendations and certified amounts, set forth above, for Fiscal Year 2021/2022.



3. <u>Certification Under Sections Section 503 of the Master Trust Indenture and U.S.C.</u> 129(a)(3)(B) of Amounts Necessary to Be Expended for Renewal and Replacement Reserve Fund Requirements for the Five (5) Next Fiscal Years.

As required by Section 503 of the Master Trust Indenture and U.S.C. 129(a)(3)(B) and 508 of the Master Trust Indenture, HNTB hereby certifies that the amounts that are necessary to be expended for the Renewal and Replacement Reserve Fund Requirement for the Turnpike for each of the five (5) next succeeding Fiscal Years are as follows:

- (i) Fiscal Year 2021/2022: \$20,572,000;
- (ii) Fiscal Year 2022/2023: \$21,584,000;
- (iii) Fiscal Year 2023/2024: \$21,763,000;
- (iv) Fiscal Year 2024/2025: \$22,834,000; and
- (v) Fiscal Year 2025/2026: \$23,028,000.

The body of the Annual Report contains additional information and detail concerning the foregoing recommendations.

Again, it should be noted that some Renewal and Replacement projects begun in and budgeted for Fiscal Year 2020/2021 could not be completed before the end of that Fiscal Year, and will be completed after the end of such Fiscal Year. The funds budgeted for the Renewal and Replacement Costs for such projects will be carried over and expended to complete those projects after the end of Fiscal Year 2020/2021. As noted earlier, above, such carried-over funds and costs are not included in HNTB's recommendations and certified amounts, set forth above, for Fiscal Year 2020/2021.

4. Certifications as to Insurance Under Section 515(a) of the Master Trust Indenture.

As required by Section 515(a) of the Master Trust Indenture, the Consulting Engineers are required to provide recommendations as to self-insurance funds, Multi-risk Insurance, and Use and Occupancy Insurance. HNTB hereby certifies that its insurance recommendations to the Authority, which are more fully set forth and discussed in the body and appendices of this Annual Report, are as follows:

- (i) Self-insurance funding of \$1,000,000 should continue to be maintained by the Authority and such funding should be available for the Authority's percentage of contribution for liability or other risks of losses and should be specifically designated as the Authority's percentage of contribution in the event of a disaster;
- (ii) Use and Occupancy Insurance, in accordance with Section 515(a)(ii) of the Master Trust Indenture, should be maintained for Fiscal Year 2021/2022 in the amount of \$159,000,000; and
- (iii) Multi-risk Insurance, in accordance with Section 515(a)(i) of the Master Trust Indenture, should be maintained for Fiscal Year 2021/2022 in the amount of \$646,068,900, as more fully explained in the Appendix to the Annual Report addressing this subject, which amount is the approximate replacement cost of the roadways, bridges, buildings, service plazas, rest areas, toll



plazas, Caperton Center, and all other buildings, structures, facilities, furnishings and equipment, all as more fully explained in the Appendix on this subject that is included in the Annual Report.

5. <u>Certifications as to Other Turnpike Capital Improvement Funding In Next Five Fiscal Years.</u>

HNTB has received and reviewed the Authority's proposed budget for its five-year capital improvement program for the Turnpike for the next five Fiscal Years, i.e., the Fiscal Years ending on June 30th of the years 2022 through 2026, inclusive. Such five-year capital program, as required by Sections 412 and 508 of the Master Trust Indenture, separately identifies for each of those 5 Fiscal Years the (A) Renewal and Replacement Costs and Renewal and Replacement Reserve Fund Requirements, which are in the respective amounts recommended and certified by HNTB in this Annual Report, and (B) other Capital Costs that are not Renewal and Replacement Costs. As required by Section 508 of the Master Trust Indenture, the Authority is required to include its five-year capital improvement program cost estimates (separated into these two categories) as part of its Annual Budget.

HNTB hereby certifies that such five-year capital improvement program for the Turnpike for the next five Fiscal Years, as more fully discussed and analyzed in the body of this Annual Report, is reasonable and sufficient to assure that the Authority, in each of such five Fiscal Years, will satisfy the Good Repair Covenant and its related obligations under the Master Trust Indenture in each of the five ensuing Fiscal Years

6. <u>Conclusion and Final Certification for this Annual Report.</u>

HNTB has monitored and continually reviews the Authority's collection of Turnpike toll revenues and expenditures to ensure that adequate funds are available in the amounts needed to address the Authority's various requirements under the Master Trust Indenture including but not limited to its obligations to fund and pay Debt Service and to fund, at required levels, all required Reserves that must be funded. The revenue projections have stabilized at \$159M based upon our review of the current revenues. The new projected revenues reflect known impacts to revenue currently being received. HNTB certifies that the Authority has been, and will continue to be able to satisfy, the Good Repair Covenants and its related obligations under the Master Trust Indenture in each of the five ensuing Fiscal Years ending on June 30th of 2022 through 2026.

Respectfully submitted,

Randolph T. Epperly, Jr., P.E.,

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HNTB CORPORATION

Vice President

cc: United Bank, Trustee (Attention: Thomas Provenzano)

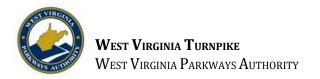


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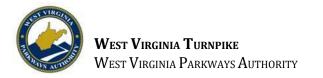
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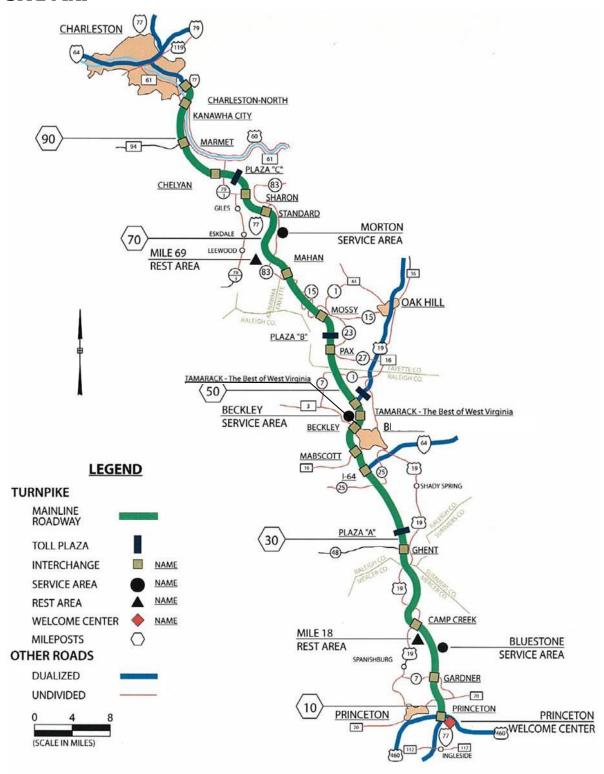


APPENDIX

2021 BRIDGE REPLACEMENT COSTS



SITE MAP





5-YEAR PROGRAM NEEDS

OPERATION AND MAINTENANCE EXPENSES

HNTB recommends the following for Operation and Maintenance Expenses:

- A. Maintenance
- B. Toll/Accounting/Customer Service
- C. Traffic Control (State Police)
- D. Administration
- E. Tourist Information Centers
- F. Non-Departmental

RENEWAL AND REPLACEMENT

HNTB recommends the following for Renewal and Replacement:

- A. Bridge Painting-The estimated cost for bridge painting is \$11.127 million over the next 5 years.
- B. Bridge Deck Sealing and Overlays-Certain existing bridge decks are exhibiting an increasing number of spalls and reduced skid resistance. These will need to be sealed and overlaid. The bridge deck sealing and overlay costs are estimated at \$3.077 million over the next 5 years.
- C. Bridge and Facilities Retrofit-The estimated cost for bridge repairs, median barrier wall repairs and miscellaneous structural repairs is at \$11.818 million over the next 5 years.
- D. Guardrail Replacement-The estimated cost for guardrail replacement and repair is \$3.686 million over the next 5 years.
- E. Shotcrete Repairs-The estimated cost for shotcrete repairs is \$1.258 million over the next 5 years.
- F. Slope Reconditioning-Based on past history of slide repairs and rock fall cleanup, the estimated cost is \$3.481 million over the next 5 years.
- G. Culverts-Culverts are rated on a condition rating system of 1 thru 3. Culverts rated 1 need to be replaced or repaired within the next 5 years. The current assessment procedures utilized visual inspection and video camera inspection. The 5 year funding needs identified 286 inlets or culverts needing repairs. The estimated cost for these repairs is \$36.972 million over the next 5 years.
- H. Vehicle/Equipment Replacement-The estimated cost for equipment is \$9.164 million over the next 5 years.
- I. Sign Replacements/Overlays-Signing meets current standards. The estimated cost for signing/footer repairs is \$0.720 million over the next 5 years.
- J. Roadway Lighting-All lighting meets current standards. The estimated cost for lighting is \$0.598 million over the next 5 years.
- K. Facilities Raised Pavement Markers/Safety Projects-The estimated cost for replacing raised pavement markers and safety projects is \$5.383 million over the next 5 years.
- L. Roadway Painting and Markings-The estimated cost for pavement striping and markings is \$14.217 million over the next 5 years.
- M. Full Depth Pavement Repairs/Undersealing-The estimated cost for full depth concrete repairs and undersealing is \$5.000 million over the next 5 years.
- N. Tree Clearing-The estimated cost for tree clearing and brush removal is \$3.280 million over the next 5 years.



CAPITAL REPLACEMENTS AND IMPROVEMENTS

HNTB recommends the following for Capital Replacements and Improvements:

- A. Pavement-Pavement costs are based on current needs as determined by recent review of WV Turnpike pavements. The estimated cost for pavement rehabilitation, reconstruction and overlays is \$72.7 million over the next 5 years.
- B. Facilities Capital Improvements-The estimated cost for facilities capital needs is \$5.2 million over the next 5 years.
- C. Yeager Bridges Painting-Yeager Bridges are due for full steel superstructure painting. The estimated cost for this painting is \$22 million over the next 5 years.
- D. Bridge Deck Replacement-WVPA has established a yearly plan for bridge deck replacement based on current condition of the decks. Many of these decks are 30 years old and have not had any structural overlay repairs. The estimated cost for bridge deck replacements is \$81.2 million over the next 5 years.
- E. Toll System Upgrades-The estimated cost for upgrading the toll system is \$18 million over the next three years.

5-YEAR PROGRAM RECOMMENDATIONS

OPERATION AND MAINTENANCE EXPENSES

Operating Expenses include all of the Authority's expenses in operating, maintaining and servicing the Turnpike system and otherwise carrying out and administering its related programs. Operating expenses include, for example, salaries, supplies, utilities, ordinary maintenance and repairs, insurance premiums, legal, accounting, management, traffic engineers and consulting engineers. The operating and maintenance expenses are detailed in the following table.

OPERATION AND MAINTENANCE EXPENSES - \$ THOUSANDS							
	2022	2023	2024	2025	2026		
Maintenance	\$20,510	\$20,920	\$21,339	\$21,765	\$22,201		
Toll/Accounting/Customer Service	\$15,906	\$16,224	\$16,549	\$16,880	\$17,217		
Traffic Control (State Police)	\$4,700	\$4,794	\$4,890	\$4,988	\$5,087		
Administration	\$3,200	\$3,264	\$3,329	\$3,396	\$3,464		
Tourist Information Centers	\$1,600	\$1,632	\$1,665	\$1,698	\$1,732		
Non-Departmental	\$3,900	\$3,978	\$4,058	\$4,139	\$4,221		
Total Operating Costs	\$49,816	\$50,812	\$51,829	\$52,865	\$53,922		



RENEWAL AND REPLACEMENT

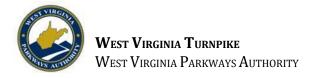
Under the Indenture, annual Renewal and Replacement requirements must be determined and certified by the Consulting Engineers. Under the Indenture, Renewal and Replacement requirements exclude annual Operating Expenses and include those expenditures required in the year for keeping the Turnpike open to public travel and use. Renewal and Replacement requirements constitute the most essential capital outlays for a given fiscal year. The five-year program for Renewal and Replacement projects are detailed in the following table. The itemized budget amounts are listed for 2022 through 2026.

	2022	2023	2024	2025	2026
Bridge Painting	\$2,096	\$2,159	\$2,223	\$2,290	\$2,359
Bridge Deck Sealing and Overlays	\$580	\$597	\$615	\$633	\$652
Bridge/Facilities Retrofit	\$2,226	\$2,293	\$2,362	\$2,432	\$2,505
Guardrail Replacement	\$694	\$715	\$737	\$759	\$781
Shotcrete Repairs	\$237	\$244	\$251	\$259	\$267
Slope Reconditioning	\$656	\$675	\$696	\$716	\$738
Culvert Repair/Replacement	\$6,964	\$7,173	\$7,388	\$7,609	\$7,838
Vehicle/Equipment Replacement	\$1,726	\$1,778	\$1,831	\$1,886	\$1,943
Sign Replacement/Overlays	\$135	\$140	\$144	\$148	\$153
Roadway Lighting	\$113	\$116	\$119	\$123	\$127
Pavement Striping and Markings	\$2,678	\$2,758	\$2,841	\$2,926	\$3,014
Full Depth Repairs/Undersealing	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Facilities/Safety	\$849	\$1,299	\$901	\$1,378	\$956
Tree Clearing	\$618	\$637	\$655	\$675	\$695
Subtotals R&R	\$20,572	\$21,584	\$21.763	\$22.834	\$23.028

CAPITAL REPLACEMENTS AND IMPROVEMENTS

The capital improvement projects are the WVPA projects scheduled and budgeted in the five-year work program to allow the Turnpike to be operated and maintained in a sound and economical manner consistent with sound management practices and principles and that it is being kept in good repair, working order and condition. The five-year program for facilities capital projects and highway and bridge capital projects are detailed in the following table. The itemized budget amounts are listed for 2022 through 2026.

	2022	2023	2024	2025	2026
Paving	\$10,600	\$26,900	\$11,600	\$11,600	\$12,000
Facilities	\$1,000	\$1,000	\$1,000	\$1,100	\$1,100
Toll Equipment Upgrade	\$18,000	\$0	\$0	\$0	\$0
Bridge Deck Replacement	\$15,000	\$15,600	\$16,200	\$16,900	\$17,500
Yeager Bridge Painting	\$22,000	\$0	\$0	\$0	\$0
Bluestone Bridge Painting	\$0	\$0	\$0	\$0	\$11,000
Travel Plaza Replacement	\$30,000	\$0	\$0	\$25,000	\$0
Barrier Wall Upgrade	\$1,400	\$1,100	\$1,400	\$2,000	\$1,700
Subtotals Capital	\$98,000	\$44,600	\$30,200	\$56,600	\$43,300



BUDGET FISCAL YEAR 2022

HNTB recommends the following:

BUDGET RECOMMENDATIONS FY 20	022 - \$ THOUSANDS
Operation and Maintenance	\$49,816
Renewal and Replacement	\$20,572
Capital Replacements and Improvements	\$98,000
Grand Total Budget	\$168,388



INSURANCE

Section 515, Subsection (a) of the Master Trust Indenture dated as of August 1, 2018 as supplemented for the West Virginia Parkways Authority states:

- (a) The Authority shall at all times cause to be maintained, to the extent reasonably obtainable, the following kinds of insurance with responsible insurance and/or reinsurance companies authorized and qualified to do business in (or with companies duly authorized and qualified to do business with companies that are authorized and qualified to do business in) the State, in such amounts as recommended by the Consulting Engineers as provided below or as determined by the Authority:
- (i) multi-risk insurance on the facilities of the Turnpike which are of an insurable nature and of the character usually insured by those operating similar facilities, covering direct physical loss or damage thereto from causes customarily insured against, in such amounts recommended by the Consulting Engineers to provide against such loss or damage and to protect the interest of the Authority;
- (ii) use and occupancy insurance covering loss of Toll Road Revenues by reason of necessary interruption, total or partial, in the use of the facilities of the Turnpike, due to loss or damage to any such facility on which multi-risk insurance is maintained as provided in this Section, in such amount as recommended by the Consulting Engineers to provide income during the period of interruption, but in no event less than 12 months, in the event of the occurrence of any such loss or damage, equal to the amount of the loss of Toll Road Revenues, computed on the basis of Toll Road Revenues for the corresponding period during the proceeding calendar year, or if such facility was not in operation during the preceding calendar year, then computed on the basis of the Consulting Engineers' estimate, attributable to such loss or damage;.

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ı	YEAR	ANNUAL FATALITIES	FATALITY RATE
	2000	12	1.3
	2001	6	0.7
	2002	9	1.0
	2003	4	0.4
	2004	15	1.6
	2005	5	0.5
	2006	6	0.6
	2007	8	0.8
	2008	7	0.8
	2009	8	0.9
	2010	4	0.4
	2011	8	0.8
	2012	8	0.8
	2013	5	0.5
	2014	3	0.3
	2015	4	0.4
	2016	7	0.8
	2017	8	0.8
	2018	9	0.9
	2019	14	1.5
	2020	6	0.5
	2021	5	0.7

- (iii) public liability insurance covering injuries to persons or property, in such amount as recommended by the Consulting Engineers;
- (iv) war risk insurance, if obtainable from the United States Government or any agency thereof, covering direct physical loss or damage, and loss of Toll Road Revenues attributable thereto, on the facilities of the Turnpike which are insurable thereunder;
- (v) during the period of construction or reconstruction of any material portion of the facilities of the Turnpike, such insurance as is customarily carried by others with respect to similar structures used for similar purposes, provided, however, that the Authority shall not be required to maintain any such insurance to the extent that such insurance is carried for the benefit of the Authority by contractors, and provided, further, that the Authority shall require contractors constructing any such portion of the facilities of the System to file bonds or undertakings for the full performance of such



contracts, and under which all risks from any cause whatsoever, without any exceptions, during the period of such construction, shall be assumed by such contractors; and

(vi) any additional or other insurance as the Authority in its discretion may determine;

provided, however, that the Authority may self-insure, in whole or in part, with the approval of the Consulting Engineers, against public liability for bodily injury and property damage, loss of Toll Revenues normally covered by use and occupancy insurance and other risks not enumerated above to the extent permitted by law and up to the levels recommended by the Consulting Engineers or a recognized, independent insurance consultant. The adequacy of any self-insurance reserve, or other insurance reserve, established by the Authority shall be evaluated annually by the Authority in consultation with the Consulting Engineers (or a recognized, independent insurance consultant). Deficiencies, if any, in any such self-insurance reserve, or other insurance reserve, shall be made up in accordance with the recommendations of the Consulting Engineers. Except to the extent such coverage is provided by the Authority, such policies shall be taken in the names of the Authority and the Trustee for the benefit of the Holders.

The Authority obtains insurance coverage for general liability, property damage, business interruption, errors and omissions and natural disasters through the West Virginia Board of Risk and Insurance Management. This board provides insurance for the State of West Virginia, local government entities and eligible non-profit organizations. Liability coverage provided to all these insured entities is limited to \$1,000,000 per occurrence with an annual aggregate coverage limit of \$22,000,000.

The Authority established a \$5 million self-insurance fund after losing the excess liability coverage from a private insurance company during 1986. In September 1992, the Authority obtained \$10 million excess liability coverage from a private insurance company. In view of this, the Authority's insurance consultant recommended that the self-insurance fund be reduced to \$1 million and be changed from liability exclusively to include other risk of loss such as pollution first party clean-up, pollution third party liability, condemnation, earthquake, earth shift, flood, etc., and be specifically designated as the Authority's percentage of contribution in the event of a disaster.

The Appendix contains copies of the consulting engineer's letter regarding recommendations for Multi-risk Insurance, in accordance with subparagraph (i) above, listing current replacement cost for bridges, and the consulting engineer's letter with recommendations for Use and Occupancy Insurance, in accordance with subparagraph (ii) above, in the amount of \$159 million to remain in line with current toll revenues. All other insurance needs are determined by the Authority.



June 17, 2021

Mr. Jeffrey A. Miller, Executive Director West Virginia Parkways Authority P.O. Box 1469 Charleston, WV 25325

RE: Use and Occupancy Insurance

Dear Mr. Miller:

Section 515, Subsection (a) of the Master Trust Indenture dated as of August 1, 2018 state that Use and Occupancy Insurance shall be in such amounts as the Consulting Engineer shall certify will provide income during a period of interruption of up to 12 months for loss of system revenues due to damage to the system resulting in partial or total loss of revenues. This amount shall not be less than toll road revenues during the corresponding period for the preceding year.

It is recommended that the Authority obtain Use and Occupancy Insurance coverage in the amount of \$159,000,000 for the 2021-2022 fiscal year. This amount of Use and Occupancy Insurance coverage will satisfy Section 515, Subsection (a) of the Master Trust Indenture dated as of August 1, 2018.

Very truly yours,

Randolph T. Epperly, Jr., P.E.

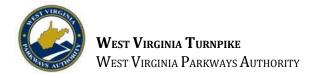
HNTB Corporation Vice President

RTE/cak

cc: - United Bank, Trustee (Attention: Thomas Provenzano)

- West Virginia State Board of Risk & Insurance Management

(Attention: Dave Mason) Margaret Vickers, WVPA



June 17, 2021

Mr. Jeffrey A. Miller Executive Director West Virginia Parkways Authority P.O. Box 1469 Charleston, WV 25325

RE: Multi-Risk Insurance

Dear Mr. Miller:

Section 515, Subsection (a) of the Master Trust Indenture dated as of August 1, 2018 state that the Authority shall maintain Multi-Risk Insurance on the system facilities which are of an insurable nature and of the character usually insured by those operating similar facilities in such amounts as the Consulting Engineers shall certify to be necessary or advisable to provide against such loss or damage and to protect the interest of the Authority and the Bondholders.

It is recommended that Multi-Risk Insurance be carried on all bridges, equipment, vehicles and facilities at the Administration Building, Maintenance Areas, Rest Areas, Service Areas, Toll Plazas, Caperton Center, Welcome Center, and all other facilities owned and operated by the Authority, including all structures, furnishings and equipment totaling \$646,068,900 with an annual premium of \$647,537 Such annual premium is included in the Operation and Maintenance expenses recommended by HNTB Corporation as consulting engineers for FY 2021-2022.

The Authority engaged an insurance consultant in 1993 to review insurance coverage. The list of Authority buildings, structures and contents of buildings and structures has been revised and updated annually in accordance with the advice of the Authority's insurance consultant and our previous recommendations. It is recommended that this list be revised and updated to include all additions, deletions and current values.

The insurance consultant recommended that the bridges be insured for replacement costs. Attached is a list of those current costs that were calculated using "Engineering News Record" construction indices. The estimated 2021 replacement costs were determined by multiplying the bid price by the ratio of the construction cost index of 11496.31 to the cost index for the year that each bridge was bid.

Very truly yours,

Randolph T. Epperly, Jr., P.E,

HNTB Corporation Vice President

RTE/cak

Attachments

cc: - United Bank, Trustee w/att.

(Attention: Thomas Provenzano)

- West Virginia State Board of Risk & Insurance Management

w/att. (Attention: Dave Mason)



- Margaret Vickers, WVPA



MAINTENANCE & SAFETY HIGHLIGHTS

Key activities of the WVPA's Maintenance Division include:

- Road and bridge safety improvement
- Resource deployment for continuing pothole repairs
- Continued implementation of the Maintenance Management System (modern management approach to improve efficiency and to reduce overall asset life cycle costs)
- Snow Removal and Ice Control (SRIC) operational improvements

MAINTENANCE PERF	ORMANCE SC	ORECARI
	TARGET	A CTUAL
ROADWAY		
Asphalt Pavements	В	Α
Signs	Α	A+
Other Traffic Control	Α	A-
Drainage Structures	А	A-
Bridges	Α	B+
Vegetation Control	В	А
Litter	В	С

Recent equipment purchases include:

- Pick-Up Broom for Sec 1 Skid Steer
- Hydraulic Angle Broom for Sec-3 Skid Steer
- Brush Grinder Head for H.E. Gradall
- Screen Printer for the Sign Shop
- Dump Bed Insert for Sec-3
- Asphalt Hot Box for Sec-1

Highlights from Fiscal Year 2021 are listed below:

- Joint & Crack Sealing 925,136 Linear Feet
- Linear Patching 1,450 Tons
- Manual Pothole Patching 998 Tons
- Mechanical Pothole Patching 266
 Tons
- Temporary Pothole Patching 4,735 Buckets
- Shoulder Stabilization 285,637
 Linear Feet
- Deck Patching 4,395 Square Feet
- Bridge Washing 104 Bridges
- Bridge Expansion Joints 117 Bridge Lanes
- Bridge Deck Sealing 98 Bridge Lanes
- Bridge Inspection/Support 1,754
 Man-hours
- Bridge Structure Repairs 704 Manhours
- Other Bridge Repair 8,149 Manhours

- Bridge Parapet Wall Coating/Patching 10,262 Linear Feet
- Abutment/Pier Coating/Patching 19 Each
- Ditch & Channel 17,970 Linear Feet
- Camera Culverts 5,814 Linear Feet
- Culvert Cleaning 1,160 Linear Feet
- Ditch Debris & Brush Removal 1,740
 Linear Feet
- Drop Inlet Cleaning & Grate Replacement 737 Each
- Annual Drain Inspection 74 Each
- Gutter Cleaning 560 Linear Feet
- Bench & Slope 14,210 Linear Feet
- Sweeping 250 Miles
- Fence Repair 4,375 Linear Feet
- Litter Pickup & Disposal 2,104 Bags
- Mowing 2.295 Acres
- Brush Cutting 127 Acres
- Herbicide Spraying 306 Acres
- Roadside Delineators Installed 3,033 Each

continued on next page



Highlights from Fiscal Year 2021, continued

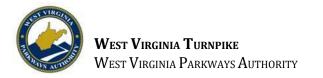
- Traffic Control & Signs 3,768 Manhours
- Salt Used 12,366 Tons
- Snow & Ice Support Operations 10,044 Man-hours
- Stockpiling SRIC Material 726 Manhours
- Emergency Response 3,173 Manhours
- Courtesy Patrol/Daywatch 25,653
 Man-hours
- Condition Assessment 1,319 Sites
 Tested
- Miscellaneous Maintenance 8,186
 Man-hours
- Equipment Cleanup and Maintenance
 10,984 Man-hours
- Tower Road Repair 857 Manhours
- Training 2,334 Training
- Boom Truck Assist 433 Man-hours
- HNTB Assist 134 Man-hours
- Concrete Patching 542 Man-hours
- Manufacture Roadway Signs 1,003
 Each
- Manufacture Facility Signs 99 Each
- Install/Repair Signs 882 Each
- Install RPM's 59 Miles
- Install LDS Panels 30 Each
- Parking Area Markings 5,844 Linear
 Feet
- Paint Pavement Markings 200 Linear Feet



FISCAL YEAR 2021 ACCOMPLISHMENTS

The WVPA continues accomplish road and bridge rehabilitation projects on the West Virginia Turnpike such as full depth concrete repairs, asphalt pavement overlays, bridge deck overlays, bridge deck replacements, bridge and facilities retrofit work and repairs and rehab to median barriers, retaining walls, buildings, toll plazas, culverts, guardrail and pavement markings. These are much needed pavement, concrete and bridge rehabilitation projects for Kanawha, Fayette, Raleigh, and Mercer Counties. Most of the construction work for Fiscal Year 2021 was performed in the Chelyan/Marmet Standard and Ghent areas (\$39 million in contracts were awarded this year as well as completing punch-list items from last year's contracts). Following Memorial Day, the majority of all work was performed at night, Monday through Thursday from 7:00 p.m. to 7:00 a.m., in order to keep traffic delays at a minimum. Toll revenues are being used to fund capital highway and bridge projects. These projects are primarily those that began construction during the Fiscal Year 2021, representing only the obligations for Fiscal Year 2021.





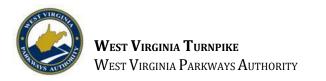
Pavement Rehabilitation Contracts 1A-20

Contract 1A-20 is a pavement milling, hot mix asphalt inlay, rumble strips and other associated incidentals at various locations in Raleigh, Fayette and Mercer Counties. West Virginia Paving performing the work for Contracts 1A-20. The approximate construction cost is \$7,506,582.84.









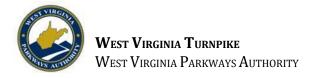
Culvert Cleaning & Retrofit Contract 1C-20

This culvert repair project is in Mercer, Raleigh, Fayette and Kanawha Counties on the West Virginia Turnpike. It is primarily composed of culvert retrofits by dewatering, lining, paving inverts, miscellaneous repairs to end treatments and maintenance of traffic. Wiseman Construction Company performed the work. The approximate construction cost is \$4,013,355.32.









Tree and Brush Removal Contract TC-1-21

This project consists of cutting trees and brush in various location within the WVPA's right-of-way. The general work areas from milepost 85.07 to 85.29 and 87.37 to 87.66 southbound were approximately 5.56 acres. Astech Corporation performed the work at a cost of \$594,853.









Tree Removal in **Progress**



Bridge Painting Contract BP-1-21

This project consists of spot painting Bridges 3070, 3080 and 3083. The work included 17,000 square feet of steelwork spot coating at a cost of \$325,444. KMX Painting performed the work.



Bridge 3070 Fascia Steelwork



Bridge 3070 Abutment Steelwork



Bridge 3080 Fascia Steelwork



Bridge 3083 Fascia Steelwork



Bridge Painting Contract BP-2-21

This project consists of blasting and painting Bridges 3001N/S, 3020S, 3022N and 3276. The work includes 80,300 square feet of steelwork coating at an approximate cost of \$864,695. Contract underway at time of report. Elite Contractors, Inc. performing the work.









Bridges 3001N and 3001S Deck Replacement Contracts BDR-1-20 & BDR-2-20

These contracts utilize a method called Accelerated Bridge Construction (ABC). Accelerated Bridge Construction is a method in which the decks are brought in as pre-cast units to provide better quality control as the units are made in a climate-controlled casting plant. Once the pre-cast units are brought in, the old deck is replaced and the new deck is put into place with a crane and locked in place with rapid set concrete (RSC) closure pours. This project fully replaced Bridge 3001N, which is a 170-foot, two lane bridge deck on northbound, I-77 over Existing WV 20. This project also replaced Bridge 3001S, which is a 170-foot, two lane bridge deck on southbound, I-77 over Existing WV 20. Both the bridges are considered twin bridges because they are adjacent to each other. BDR-1-20 (Bridge 3001N) began on Sunday evening April 19th, 2020 and was completed on April 25th; which resulted in the contractor working 103.5 hours to complete the project while taking into consideration clock stoppage(s) due to inclement weather. BDR-2-20 (Bridge 3001S) began on Sunday evening March 29th, 2020 and was completed on April 4th, which resulted in the contractor working 122 hours to complete the project while taking into consideration clock stoppage(s) due to inclement weather. Brayman Construction Corporation was awarded this project and the approximate total cost was \$5,615,897.00.



Bridge Departure Paving



Deck Removal and Placement of Pre-Cast



Waterproof Membrane Installation



Bridges 3020S and 3022N Deck Replacement Contracts BDR-3-20 & BDR-4-20

This contract also utilized Accelerated Bridge Construction (ABC). Accelerated Bridge Construction as mentioned earlier is a method in which the decks are brought in as pre-cast units to provide better quality control as the units are made in a climate-controlled casting plant. Once the pre-cast units are brought in, the old deck is replaced and the new deck is put into place with a crane and locked in place with ultra high performance concrete (UHPC) closure pours. While the ABC process is essentially the same for each bridge, this project was unique because this was the first time utilizing UHPC on the turnpike. There was a steep learning curve for the Contractor and Engineer but most of the kinks were worked out during the mockups at the staging yards. The Contractor did a fine job making field adjustments to ensure the product was installed correctly. There were still a few hiccups along the way but ultimately was resolved during the final punch list items. This project fully replaced Bridge 3020S, which is a 164-foot, two lane bridge deck on southbound, I-77 over Raleigh CO 42. This project also replaced Bridge 3022N, which is a 160-foot, two lane bridge deck on northbound, I-77 over CR 18. BDR-3-20 (Bridge 3020S) began on Sunday evening April 26th, 2020 and was completed on May 2nd; which resulted in the contractor working 131.5 hours to complete the project while taking into consideration clock stoppage(s) due to inclement weather as well as overruns as a result of using UHPC. BDR-4-20 (Bridge 3022N) began on Sunday evening March 10th, 2020 and was completed on May 15th, which resulted in the contractor working 123 hours to complete the project while taking into consideration clock stoppage(s) due to inclement weather as well as overruns as a result of using UHPC. Brayman Construction Corporation was awarded this project and the approximate total cost was \$5,568,169.50.







BDR-4-20



Bridge/Facility Retrofit Contract BFR-1-20

Contract BFR-1-20 is a 3-year contract with 2 one-year renewals. For fiscal year 2021, the contract amount was approximately \$2,000,000. A major portion of this contract's work is to replace defective expansion joints/seals, retrofit structural steel members with section loss, repair damaged barrier walls, patch bridge decks and rehab toll plaza lanes.













Bridge Shotcrete Repair Contract BSR-1-21

This project consists of repairs to selected structures by pneumatically applied mortar (shotcrete). The work included approximately 104 square feet of repairs to Bridge 3066. Air Placement Company performed the work for a total cost of \$92,410.











Middle Mile Infrastructure Project Contract MMI-1-20

This project consists of an underground Fiber line crossing through WV. The fiber line runs along the parkways from MP. 9 at Princeton to MP. 83.5 just past Barrier C. Along the Parkways the line is placed inside the right-of-way by means of open cut ditching, underground boring and bridge attachments. The fiber line has 21 steel casing crossings and 4 bridge attachments. The approximate construction cost of \$288,000.



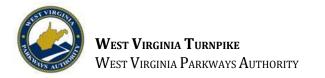








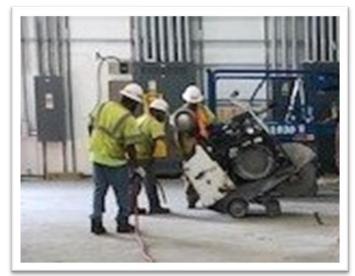




Beckley West Crane Project Contract BWC-1-19 REBID

This project involved the installation of a new gantry crane inside of the existing Beckley West Maintenance Facility Building in Raleigh County (Milepost 44). DCI/Shires Inc. performed the work at an approximate construction cost of \$189,400.









Beckley West Crane Installation



Bluestone Sewage Treatment Plant Contract BSP-1-21

This project involved the construction of the Bluestone Sewage Treatment Plant in Mercer County, Milepost 18 Northbound I-77. Triton Construction performed the work at an approximate construction cost of \$462,000.







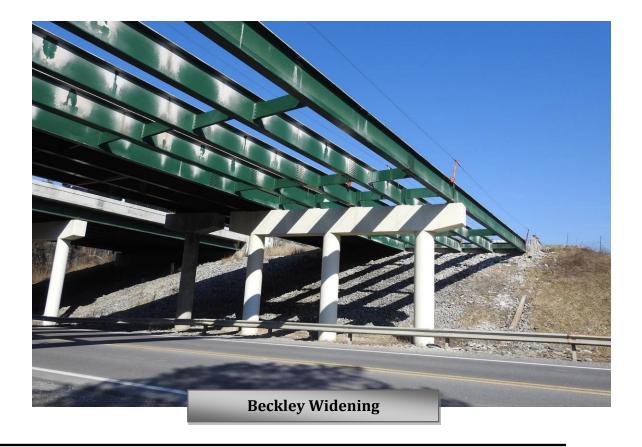
Toll Booth "Almost Heaven" Wraps

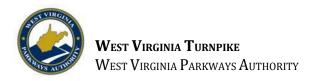
In May, a partnership between WVPA and WV Department of Tourism extended Governor Justice's vision to showcase West Virginia by promoting West Virginia Tourism on the West Virginia Turnpike. The Toll Plaza Booths were wrapped utilizing six different themes: skiing, fishing, ATV riding, hiking, rafting and Tamarack.





APPENDIX





West Virginia Parkways Authority

2021 BRIDGE REPLACEMENT COST

STRUCTURE NUMBER	YEAR BID	ENR INDEX		BID PRICE		REPLACEMENT COSTS (ROUNDED)
2144N	1980	3237	\$	15,235,011	\$	54,728,000
21448	1952	569	\$	2,419,297	\$	49,441,000
3001N	1976	2401	\$	311,298	\$	1,508,000
3001S	1976	2401	\$	316,803	\$	1,535,000
3003N	1976	2401	\$	287,596	\$	1,400,000
3004S	1976	2401	\$	306,888	\$	1,487,000
3005N	1976	2401	\$	649,641	\$	3,147,000
3005S	1976	2401	\$	565,379	\$	2,739,000
3006	1976	2401	\$	375,435	\$	1,819,000
3007	1976	2401	\$	372,640	\$	1,805,000
3001	1370	2401	Ψ	372,040	Ψ	1,000,000
3008N	1976	2401	\$	256,237	\$	1,250,000
3008\$	1976	2401	\$	268,094	\$	1,300,000
3010N	1976	2401	\$	7,966,577	\$	38,582,000
30108	1952	569	\$	1,546,394	\$	31,602,000
3012N	1976	2401	\$	744,234	\$	3,605,000
3012S	1976	2401	\$	560,547	\$	2,715,000
3017N	1976	2401	\$	335,144	\$	1,624,000
3018S	1976	2401	\$	334,367	\$	1,620,000
3019N	1976	2401	\$	308,425	\$	1,494,000
3019S	1976	2401	\$	178,300	\$	864,000
						<i>"</i>
3020N	1976	2401	\$	195,939	\$	949,000
3020S	1976	2401	\$	291,219	\$	1,420,000
3021N	1976	2401	\$	211,463	\$	1,030,000
3021S	1976	2401	\$	344,491	\$	1,669,000
3022N	1976	2401	\$	257,358	\$	1,250,000
3022S	1976	2401	\$	243,665	\$	1,190,000
3026N	1983	4066	\$	1,261,802	\$	3,609,000
3026S	1983	4066	\$	1,010,343	\$	2,890,000
3029N	1983	4066	\$	625,654	\$	1,790,000
3029S	1983	4066	\$	354,725	\$	1,020,000



WEST VIRGINIA PARKWAYS AUTHORITY

2021 BRIDGE REPLACEMENT COST

STRUCTURE NUMBER	YEAR BID	ENR INDEX	BID PRICE	REPLACEMENT COSTS
STRUCTURE NOWIBER	I EAR BID	ENK INDEX	BID FRICE	(ROUNDED)
3030N	1983	4066	\$ 822,446	\$ 2,353,000
3030\$	1983	4066	\$ 1,566,506	\$ 4,480,000
	33000000			
3034N	1983	4066	\$ 1,008,408	\$ 2,884,000
30348	1983	4066	\$ 1,038,557	\$ 2,971,000
3038N	1978	2776	\$ 349,604	\$ 1,465,000
3038S	1978	2776	\$ 565,705	\$ 2,370,000
3039E	1978	2776	\$ 354,302	\$ 1,485,000
				_
3039W	1978	2776	\$ 354,302	\$ 1,485,000
3041N	1982	3825	\$ 505,662	\$ 1,538,000
3041S	1982	3825	\$ 495,378	\$ 1,506,000
3042	1982	3826	\$ 384,616	\$ 1,170,000
3043N	1982	3825	\$ 444,803	\$ 1,360,000
3043S	1982	3825	\$ 840,560	\$ 2,556,000
3044N	1982	3825	\$ 1,171,994	\$ 3,563,000
3044S	1982	3825	\$ 1,047,519	\$ 3,185,000
3045N	1982	3825	\$ 596,023	\$ 1,812,000
3045S	1982	3825	\$ 883,965	\$ 2,688,000
3046N	1981	3533	\$ 573,556	\$ 1,888,000
3046S	1981	3533	\$ 707,668	\$ 2,330,000
3048N	1981	3533	\$ 441,062	\$ 1,452,000
3048S	1981	3533	\$ 430,038	\$ 1,420,000
3050N	1981	3533	\$ 482,166	\$ 1,587,000
	-100000100	200		
3050S	1981	3533	\$ 491,056	\$ 1,617,000
3051N	1982	3825	\$ 410,565	\$ 1,250,000
3051S	1982	3825	\$ 410,565	\$ 1,250,000
3053N	1982	3825	\$ 747,909	\$ 2,274,000
3053S	1982	3825	\$ 747,909	\$ 2,274,000
3055N	1979	3003	\$ 1,266,273	\$ 4,904,000
3055\$	1979	3003	\$ 1,264,663	\$ 4,897,000
3056N	1979	3003	\$ 1,456,339	\$ 5,640,000
3056S	1979	3003	\$ 1,467,482	\$ 5,683,000
3057N	1979	3003	\$ 1,669,909	\$ 6,467,000



WEST VIRGINIA PARKWAYS AUTHORITY 2021 BRIDGE REPLACEMENT COST

REPLACEMENT COSTS

STRUCTURE NUMBER	YEAR BID	ENR INDEX	BID PRICE	REPLACEMENT COSTS (ROUNDED)
3057S	1979	3003	\$ 1,467,837	\$ 5,684,000
3058N	1979	3003	\$ 2,590,444	\$ 10,040,000
3058S	1979	3003	\$ 2,539,317	\$ 9,833,000
3059N	1979	3003	\$ 1,310,193	\$ 5,074,000
30598	1979	3003	\$ 954,601	\$ 3,697,000
3060N	1979	3003	\$ 1,366,315	\$ 5,291,000
3060S	1979	3003	\$ 1,344,010	\$ 5,205,000
3061	1979	3003	\$ 610,330	\$ 2,364,000
3063N	1979	3003	\$ 538,107	\$ 2,084,000
3063S	1979	3003	\$ 535,374	\$ 2,074,000
3065N	1979	3003	\$ 1,445,790	\$ 5,599,000
3065S	1979	3003	\$ 1,445,790	\$ 5,599,000
3066	1979	3003	\$ 576,917	\$ 2,234,000
3067N	1979	3003	\$ 2,256,259	\$ 8,737,000
3067S	1979	3003	\$ 2,256,259	\$ 8,737,000
3070N	1983	4066	\$ 528,737	\$ 1,513,000
3070S	1983	4066	\$ 528,737	\$ 1,513,000
3072N	1983	4066	\$ 717,000	\$ 2,051,000
3072S	1983	4066	\$ 717,000	\$ 2,051,000
3073N	1980	3237	\$ 981,507	\$ 3,526,000
3073S	1980	3237	\$ 981,507	\$ 3,526,000
3074N	1980	3237	\$ 1,110,269	\$ 3,989,000
30748	1980	3237	\$ 1,110,269	\$ 3,989,000
3075N	1980	3237	\$ 1,930,130	\$ 6,934,000
3075S	1980	3237	\$ 1,930,130	\$ 6,934,000
3076N	1978	2776	\$ 1,036,302	\$ 4,341,000
3076S	1978	2776	\$ 1,036,302	\$ 4,341,000
3077	1978	2776	\$ 708,758	\$ 2,969,000
3078	1978	2776	\$ 448,257	\$ 1,878,000
3080N	1978	2776	\$ 635,890	\$ 2,670,000



WEST VIRGINIA PARKWAYS AUTHORITY

2021 BRIDGE REPLACEMENT COST

STRUCTURE NUMBER	YEAR BID	ENR INDEX		BID PRICE		EMENT COSTS DUNDED)
3080\$	1978	2776	\$	635,890	\$	2,664,000
3081N	1980	3237	\$	399,901	\$	1,437,000
3081S	1980	3237	\$	399,901	\$	1,437,000
3082N	1980	3237	\$	2,687,208	\$	9,653,000
3082S	1980	3237	\$	2,687,208	\$	9,653,000
3083N	1980	3237	\$	336,301	\$	1,210,000
3083S	1980	3237	\$	336,301	\$	1,210,000
3084N	1980	3237	\$	821,754	\$	2,952,000
3084S	1980	3237	\$	821,754	\$	2,952,000
3085N	1981	3533	\$	503,608	\$	1,658,000
3085S	1981	3533	\$	503,608	\$	1,658,000
3086N	1981	3533	\$	602,286	\$	1,983,000
3086S	1981	3533	\$	602,286	\$	1,983,000
3087N	1980	3237	\$	990,712	\$	3,559,000
3087S	1980	3237	\$	990,712	\$	3,559,000
			10			
3088	1980	3237	\$	157,856	\$	568,000
3235E	1981	3533	\$	385,112	\$	1,270,000
3235W	1981	3533	\$	385,112	\$	1,270,000
3271	1983	4066	\$	1,213,000	\$	3,469,000
3272	1983	4066	\$	1,044,771	\$	2,988,000
	1 ANIAM (1861)				-	
3273	1983	4066	\$	1,142,945	\$	3,269,000
3276	1983	4066	\$	487,747	\$	1,395,000
4172	1995	5506	\$	1,328,831	\$	2,807,000
4178	1995	5506	\$	814,289	\$	1,720,000