

Memorandum

To: Damian Krings, P.E.
Highways Engineer

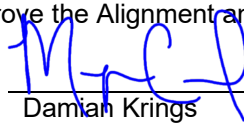
From: Steve Heidner, P.E. *SDH*
District Projects Engineer

Date: June 20, 2024

Subject: NH-HSIP 57-6(23)260
BROCKWAY – WEST
UPN 9728000
Work Type 140 - Reconstruction – without added capacity

Please approve the Alignment and Grade Review for this project.

Approved



Damian Krings

FOR: Highways Engineer

Date

6/24/2024

We are requesting those on the distribution list provide any comments within two weeks of the approval date.

Distribution:

Shane Mintz, Glendive District Administrator
Damian Krings, Highways Engineer
Andy Cullison, Bridge Engineer
Gabe Priebe, Traffic and Safety Engineer
Jason Gilliam, Right-of-Way Bureau Chief

Rob Stapley, Rail, Transit, & Planning Division Administrator
Tom Martin, Environmental Services Bureau Chief
Jeff Jackson, Geotechnical and Pavement Bureau Chief
Joe Green, Construction Bureau – VA Engineer
Jon Swartz, Maintenance Division Administrator

cc:

Located at the end of this document

Alignment and Grade Report

Introduction

An Alignment and Grade Review (AGR) was conducted on May 22, 2024 via Teams, followed by a field review on May 23, 2024. The following attended the office review (those with a ♦ symbol by their name went to the field review):

♦ Jim Frank, DPE – Glendive	Drew Nelson, Utility Agent – Helena
♦ Jay Fleming, DCOE – Glendive	♦ Grant Rodway, Environmental – Helena
♦ Steve Heidner, DPDE – Glendive	♦ Nick Jaynes, Geotechnical – Helena
Shane Jarvis, Road Design Supervisor – Glendive	♦ George Metzger, Hydraulics – Helena
♦ Brian Frank, Road Design – Glendive	Greg Zeihen, Surfacing Design – Helena
Zachery Miles, Utility Agent – Miles City	♦ Larry Sickerson, Biologist – Helena
Patty Patterson, R/W Supervisor – Glendive	Steve Rogne, Traffic Signing – Helena
♦ Nick Schriver, Maint. Superintendent – Wolf Point	Clay Blackwell, DCE – Miles City
Mark Kurokawa, Maint. Chief – Wolf Point	Erik Suhr, Hydraulics – Helena
Joy Fleming, Design Project Manager – Helena	Marty Loudon, Maint. Section Super. – Circle

The AGR documents were sent out for review via electronic distribution. It was requested that all comments be published on the shared PDF's so they could be seen together in one place. The review documents are archived on PCMS and can be accessed using the link provided below. This report will document the major scope items and any decisions that were made pertaining to them. All comments received along with appropriate responses to the comments can be viewed in this archive PDF document:

AGR Comments/Responses PDF Archive: [9728000RDAGRCMT.pdf](https://pcms.nh.gov/9728000RDAGRCMT.pdf)

Scope of Work

This project will reconstruct the existing roadway using 6 ft. shoulders with new horizontal and vertical alignments. The design speed for the project will be 60 mph to meet the criteria for NHS non-interstate principal arterial in rolling terrain.

Project Location and Limits

- County: McCone; T. 18 N., R. 45, 46, 47 E.
- Route Number: N-57 / MT-200
- Functional Classification: NHS non-interstate Principal Arterial
- Begin: RP 260.2
 - Sta. 2488+00 (this project) =
 - Sta. 2488+00 (End NH-HSIP 57-6(22)254; UPN 9727000; West of Brockway – West) =
 - as-built station 2494±00 on F 247D
- End: RP 267.0
 - Sta. 2852+78.52 (this project) =
 - as-built station 16+00.0 on NH 57-6(7)267 F
- Project Length: 6.9 miles
- As-built projects:
 - The roadway within the project limits was originally constructed under the following project:
 - RP 260.2 to 267.0 F 247D; 1937
 - The end of this project ties into the following project completed in 2000:
 - NH 57-6(7)267 F; Brockway – East
 - In 2010, the timber bridge at Beauty Creek was replaced with a culvert under:
 - RP 261.68 NH 0002(699)
- Secondary 253 ends at a “T” intersection from the south to the east of this project at RP 267.478.
- Adjacent project numbers:
 - This project is to the east of one other project in design:
 - West of Brockway – West [UPN 9727000], PE# NH 57-6(21)254
RP 253.5 to 260.2
To be let before this project in FFY 2026
 - This project is to the west of one recently completed project:
 - Circle – Southwest [UPN 9455000], CN# NH 57-6(18)267
RP 267.0 to 278.7

Alignment and Grade Report

Constructed in 2023

- Direction of the Project: Both RP's and stationing increase from west to east.

Work Zone Safety and Mobility

At this time, Level 2 construction zone impacts are anticipated for this project as defined in the Work Zone Safety and Mobility (WZSM) guidance. The plans package will include a Transportation Management Plan (TMP) consisting mainly of a Traffic Control Plan (TCP).

Physical Characteristics

- a. Terrain:
The existing terrain is rural rolling pasture and farmland.
- b. Pavement width and number of lanes:
The pavement width is a 24.0 ft. finished top, which includes two 12 ft. driving lanes.
- c. Surfacing:
The road was constructed with 2.0 in. compacted road mix bituminous surfacing with seal and cover on top of 2.0 in. of comp. top cushion on top of 4.0 in. of comp base course (SBBC) on top of the oil mat in place on top of an average 3.0 in. comp. base in place. The Road Log indicates some variation in the thicknesses and does not likely include all the overlays that have occurred since its original construction and surfacing in 1947 and 1955.
- d. Horizontal:
The existing horizontal alignment consists of a single 11,460 ft radius curve at as-built PI Sta. 2656+24.9 with as-built back and ahead bearings of S 84°33' E and N 89°07' E.
- e. Vertical:
The existing vertical alignment between as-built stations 2494+00 (F 247D) and 16+00 (NH-576(7)267 F) consists of 13 crests and 17 sag vertical curves. Eight crest and ten sag curves do not meet minimum stopping sight distance criteria for a 60-mph design speed. The steepest grade is 7.0%. There are 8 grades that exceed the 4% maximum, ranging from 4.2% to 7.0%.
- f. Existing cut and fill slopes:
According to the 1937 as-built plans, the existing slopes on the project were constructed as follows:
 - Cut Slopes: 3:1 ditch in-slope for ±6.25 ft with a variable width 10:1 ditch bottom.
 - Fill Slopes: 3:1 for fill heights of 3ft or less. 1.5:1 for fill heights over 3 ft.
- g. Existing Bridges:
There are no existing bridges.

Context Specific Criteria and Scope Specific Considerations

There are no context specific criteria or scope specific considerations anticipated for this project.

Design Speed

The design speed for this NHS non-interstate principal arterial in rolling terrain is 60 mph. The posted speed for this roadway is 70 mph and 65 mph at night for passenger vehicles. For trucks the posted speed is 65 mph day and night.

Horizontal Alignment

The horizontal alignment is designed to meet current design standards and is offset from the PTW throughout the project to facilitate construction under traffic. The offset alignment transitions from the south side of the PTW to the north side around RP 261.9. The beginning of this project ties onto the end of the West of Brockway – West [UPN 9727000] project and will remove the connection used to get back onto the PTW. The actual time of construction for the adjacent project and coordination between them will dictate if the connection is constructed for not. The end of the project will remove the connection

Alignment and Grade Report

constructed with the Brockway – East project in 2000. No end connection will be needed for this project as it will tie in tangent with the Brockway – East offset alignment.

At the beginning of the project the horizontal alignment is shifted 40 ft south of the PTW to match the offset of the West of Brockway – West [UPN 9727000] project. For the 40 ft south offset there are currently no identified utility impacts since both power poles and underground fiber optic are offset north outside of the AGR plans construction limits.

Per the PFR report a shift in alignment from the south side of PTW to the north side was recommended around the Beauty Creek crossing. The AGR plans have normal crown “S” curves that span nearly 0.75 miles and are approximately centered over the Beauty Creek drainage crossing (Approx. RP 261.9). The goal of the curves is to put the new alignment closely equal to the PTW right at this creek crossing due to potential wetland impacts. At the time of AGR, wetland delineations had not been provided to evaluate the level of impacts, but centering the alignment near the PTW at the crossing helps to minimize potential impacts. In the AGR meeting it was mentioned that we should investigate moving the “S” curves back to the Beauty Valley Road intersection to center over the culvert that was installed in 2010 and minimize impacts to the channel to the west of the pipe crossing. It was decided that a profile modification could be made instead to better fit existing terrain and extend the culvert and to better avoid the channel to the west.

To the east of Beauty Creek, the alignment shift is 30 ft to the north of the PTW until the horizontal curve just past RP 263. There are a small handful of impacts to power poles on the north side through here, but the vertical profile should be able to be adjusted to avoid these impacts. The underground fiber optic crosses from north to south at approximately RP 262.335 and is still outside of the AGR construction limits other than at the crossing.

At approximate RP 263.2 (PI station 2649+56) there is a 12,000 ft. left normal crown horizontal curve. This curve facilitates the transition from the previous 30 ft north offset, to then match the tangent bearing at the start of the Brockway – East project that was constructed in 2000. The offset after the curve generally varies from approximately 40 ft north to 30 ft north. This variability is because the PTW bearing differs from the beginning of the Brockway – East project. In this section of the alignment there are a handful of power pole conflicts in the AGR plans. Reasonable modifications to the vertical profile will be made to attempt to avoid as many conflicts as possible.

Vertical Alignment

The AGR plans showed a vertical profile that met design criteria with a balanced earthwork. All the vertical curves meet stopping sight distance criteria for a 60-mph design speed. The proposed AGR profile has 15 vertical curves as opposed to the 30 vertical curves in the existing roadway.

The project begins on a vertical tangent grade of -2.223% at the end of the adjacent West of Brockway – West project [UPN 9727000]. Throughout the project, the crest curves were generally lowered and lengthened, and most sags were raised and lengthened. The result of the is a profile where all grades meet the 4% maximum grade design criteria. The project ends on a vertical tangent grade of -0.520% at station 2852+78.52. This grade may be slightly adjusted after a pickup survey this fall/winter at the end of the project to capture the new tie-in elevation after the profile milling & overlay on Circle – Southwest constructed in 2023.

Several profile adjustments were recommended at the AGR, which were evaluated and updated to the extent practicable. Additional profile adjustments were made to rebalance the earthworks. The following areas have been revised per comments or for earthworks:

1. The VPI at 2531+00 was shifted up station on the -3.804% grade to 2534+00.
2. An additional VPI was added at 2543+50 to assist with the next VPI.
3. The VPI at 2560+50 was moved back on station to 2557+50 and lowered to reduce fill height at the Beauty Valley approach and avoid filling in a drainage channel on the RT. An additional VPI was added at 2570+50 to help maintain a grade that's closer to existing for the Beauty Valley approach. The VPI at 2582+50 was also shifted back on station to 2579+00 and lowered to better match existing grades.
4. The VPI at 2627+50 was shifted back on station to 2626+50 for earthworks balancing.

Alignment and Grade Report

5. The VPI at 2643+50 was raised for earthworks balancing.
6. The VPI at 2657+50 was shifted back on station and slightly raised to get a better profile above the PTW.
7. An additional VPI was inserted at 2684+50 for earthworks balancing.
8. The VPI at 2701+00 was raised and shifted ahead on station to address a comment about raising the tangent at 2710±00.
9. The VPI at 2719+00 was shifted ahead to 2726+00 and lowered to address a comment about the grade increase over Beauty Creed Road. The -0.200% grade from VPI 2719+00 to VPI 2753+00 was removed and two intermediate VPIs were added to better match existing grades. VPIs 2735+50 and 2747+00 were added.
10. The VPI at 2773+00 was shifted back to 2772+00 and lengthened for earthworks balancing.
11. An additional VPI at 2786+00 was added for earthworks balancing.

After making changes to the AGR profile, a new vertical profile was generated that meets design criteria and has a balanced earthwork. In the modified profile there are 20 vertical curves (9 crests and 11 sags).

Surfacing

The AGR surfacing section utilized a 0.30' plant mix surface on top of 0.65' of crushed aggregate course with 0.65' of cement treated base below the CAC. The surfacing section is based off a design R-value of 5, 75 ESAL's and a 20-year design life. PG 64-28 binder and ¾" Grade S plant mix surfacing with 5.3% asphalt content was recommended in the preliminary surfacing recommendation but will be updated to use the current PG 58V-34 binder.

This method of incorporating the CTB via. an inverted typical section has been employed on several projects to date with reports of it turning out well. An expected observation is that the cracking has not been appearing as early as would be expected with a CTB only section and is more reflective of a CAC only section. While this concept is still relatively new to MDT in the Glendive District, so the long-term performance remains to be seen, it has been successfully utilized in other states. While not specifically discussed during the meeting, the intent is to utilize the same optional methods for curing the cement treated base. These include the traditional curing seal and blotter application or keeping the surface wet prior to placement of CAC over top of the CTB to finish curing. A special provision will be included detailing the optional requirements. Payment for curing will be incidental to the CTB in this case.

This inverted surfacing section is being used because it has the potential to reduce or delay the block cracking in the pavement that occurs rapidly with CTB only sections, provides flexibility for long term future rehabilitation options, and allows better compaction of the CAC layer due to it being placed on the harder CTB layer. The cost difference between the two sections is negligible and largely depends on the price of Portland Cement at the time of letting.

Typical Section

The roadway will be constructed with a 36 ft. finished top for the entire project. The 36 ft. finished top section consists of two 12 ft. driving lanes with 6 ft. shoulders. The project will use the standard 2% cross slope and 6:1± surfacing in-slopes. There are no superelevated sections on the project.

The ditch section will be constructed to meet the standard criteria for Rural Principal Arterials in rolling terrain. However, snow ditches with a 20 ft. bottom width (20:1 slope) will be used on the north side of the roadway through all cut sections. Based on past observations of snow ditch performance by members of the design team, the wider snow ditches will be carried through the entire cut section to ensure they work properly. Standard fill and backslopes will be used with a slope of 3:1 or flatter for both cuts and fills throughout the project.

Grading

The project will involve substantial grading and will be paid as Unclassified Excavation. The grading is designed to balance excavation and embankment. The project will use an assumed shrink factor of 25% for earthwork balancing purposes.

The AGR plans showed approximately 740,000 cubic yards of excavation and 723,000 cubic yards of embankment plus. After adjustments to the AGR profile, a new earthwork balance was achieved with

Alignment and Grade Report

approximately 586,000 cubic yards of excavation and 565,000 cubic yards of embankment plus. These quantities will change after additional ditch and approach grading has been designed but a reasonable balance should be maintained. The need for unclassified borrow is not anticipated.

Geotechnical Considerations

No unique or major geotechnical issues were identified during the Preliminary Geotech Evaluation Activity 460 or the alignment and grade review. Additional geotechnical investigations will be performed as part of the Geotech – Field Investigation Activity 462 and 464 Report, which will document anything necessary for the future scope of work report.

Hydraulics

There are a total of 24 mainline culvert crossings. Six of the culverts are larger than 48 inches, and one of those is a 4' x 5' timber box. The **existing culverts will be replaced or eliminated** per the Hydraulic recommendation with pipe options to include steel, aluminum, and concrete based on site specific conditions. **New culverts will be sized according to flow requirements.** A preliminary recommendation has been provided to replace the quad culverts at Beauty Creek with a Double 12' x 7' Concrete Box Culvert.

This project is not located in a FEMA designated floodplain, no floodplain permits will be required.

An irrigation study report was distributed on July 6, 2021, and found no mention of irrigation facilities in right-of-way agreements or appraisals for irrigation water rights. There are two water rights that are adjacent to the project that are used for flood irrigation.

The irrigation study report can be found here: [9728000HYMEMISR.pdf](#)

Permanent Erosion and Sediment Control (PESC) Features

No unique permanent erosion and sediment control design features have been identified at this time. Any areas that meet the requirements for PESC will be addressed as the project design moves forward. All short-term erosion control will be mitigated with temporary erosion control BMP's and revegetation.

Bridges

There are no existing or planned bridges within the project limits.

Traffic

It is not anticipated that there will be a need for any special treatment along this alignment as there are no major intersections or elements requiring project specific geometric features. The need for approach radii greater than the standard 25 ft. will be evaluated based on current size and use of the approaches and by input received from landowners during right-of-way negotiations. The Traffic Section will provide plans and quantities for signing, delineation, and pavement markings.

Intelligent Transportation Systems (ITS) Features

No ITS features have been identified at this time

Miscellaneous

Guardrail:

Slopes will be designed to eliminate the need for guardrail as much as practical. Based on the AGR plans, no guardrail is anticipated to be necessary. In the event guardrail is warranted, box beam guardrail would be used to mitigate snow drifting potential.

Salvage:

There were no items identified on this project that Maintenance wants salvaged at this time.

Rumble Strips:

Shoulder and centerline rumble strips will be included in accordance with the Rumble Strip Guidance Memo. Note that this route has been identified as an existing bicycle route by the Adventure Cycling Association. There are no residences within 200 yards of the road, so no additional public involvement is necessary due to the inclusion of rumble strips.

Alignment and Grade Report

Fencing:

Fencing along the project will be replaced and is a right-of-way negotiated item. Wildlife friendly fence will be encouraged whenever possible. In the field review it was noted that the fencing around Cotter Creek should be replaced because it is within MDT right of way and wouldn't be covered under negotiations.

Approaches:

Approaches will be reconstructed to fit site conditions and be perpetuated near their existing locations to the extent practicable. Public and private approaches will be paved to the right-of-way. Farm field approaches will be gravel surfaced to the right-of-way and receive a 12 ft. plant mix strip. Where there's potential for trucks on public approaches, 50 ft. radii will be used.

Mailboxes:

Existing mailboxes in use will be replaced with this project. Mailbox turnouts will not be required with the inclusion of 6 ft shoulders.

Design Exceptions and Variances

No design exceptions or variances are anticipated currently.

Right-of-Way

Existing right-of-way widths are predominately 50' LT/RT of the PTW with a few isolated areas of 45', 60' or variable width on one side or the other. There is one section of right-of-way that follows the south side of section 16, which is a State Lands section near RP 263. The acquisition of new right-of-way will be a uniform 80' or 10' beyond the construction limits, whichever is greater.

The current estimate for right-of-way costs in PPMS is set at \$75,000. This amount will be refined as the design progresses and prior to requesting funding for the R/W phase. The estimate will be updated as it becomes available.

Utilities/Railroads

Overhead power runs the length of the project on the north side of the road. Underground fiber optic is also present throughout the project and is generally outside of the project limits except for a couple crossings and pedestals. There is also one underground copper telephone line near Beauty Valley Road that crosses the road running north/south. This underground copper telephone is confirmed to not be in use by Mid-Rivers and can be impacted. Impacts to utilities are anticipated to be minimal with several power poles or pedestals potentially being in conflict as well as several crossings. As noted earlier, the intent is to minimize impacts to these utilities to the greatest extent practicable.

There are no railroads in the vicinity of this project.

The estimated amount of IC necessary to complete the project has been entered as \$125,000 in PPMS as a starting point. The estimate will be refined as the project progresses from survey into design, and prior to requesting funding for the IC phase.

Maintenance Items

During the office review it was noted that maintenance has a stockpile location at 2623±00 with an existing approach at 2627±50. Maintenance mentioned that they don't mind the approach being moved if they retain access to the location. Currently the approach is in the middle of a cut so it may be desirable to move the approach closer to 2621±00.

Maintenance concurs with the inclusion of snow ditches to help mitigate snow drifting issues prevalent on this corridor.

Agreements

Utility, right-of-way, and right-of-entry agreements will be obtained during project development as determined necessary. No other agreements are needed for this project.

Alignment and Grade Report

Environmental Considerations

The initial review did not identify any significant environmental effects, issues, or cumulative effects from the proposed work. A Categorical Exclusion is expected to provide a sufficient level of documentation for this project in accordance with the guidelines of 23 CFR 771.117, which will be secured prior to the scope of work approval.

This project will have no effect on any threatened, endangered, or candidate species. This project is not located in any Greater Sage-grouse habitats as defined by the Montana DNRC. The wetland survey work for this project will be provided by HDR, a term consultant. HDR will complete the wetland delineation work in July 2024 and provide MDT with shapefiles by August 19, 2024. A WARM memo will not be prepared for this project. MDT modified farm fence design will be the only appropriate wildlife accommodation needed for this project, wherever ROW fencing will be necessary. MDT ROW personnel are encouraged to communicate the importance of the need for MDT modified farm fence in this area with area landowners. However, it was noted during the PFR and AGR, that much of the ROW within the limits of this project is unfenced at the present time. Allowing the ROW to remain unfenced, or to move forward unfenced, would be the optimum wildlife accommodation possible and would save the project money.

A cultural resource survey was conducted. The State Historic Preservation Office concurred with MDT's determination of No Historic Properties Affected via letter received November 30, 2023. Link to concurrence on PCMS: [9728000ENCUL001.pdf](#)

A 404 permit and the associated special provision will be required. A SPA-124 Authorization from MTFWP will be needed for the work at Beauty Creek. Environmental related special provisions will be provided by the Environmental Section.

Experimental Features and Proprietary Products

No experimental features have been identified for use on this project.

Traffic Control

A traffic control plan will be developed as the design of the project progresses. Traffic will be maintained during construction activities throughout the project. The offset alignment through portions of the project will help facilitate construction under traffic. **Two-lane two-way traffic will be maintained as much as possible, but one-lane two-way pilot vehicle and/or flagger guided traffic may be required** for some construction activities to ensure work zone safety and mobility. Appropriate traffic control devices and signing will be used throughout the project in accordance with the *Manual on Uniform Traffic Control Devices*.

Public Involvement

The project Level of Impact (LOI) has been determined to be Substantial, and level of public involvement C, as defined by MDT's Public Involvement Plan.

This project is on an NH route with a current ADT of just over 500 currently. Other than the Highway Commission designation as a "substantial impact project", the Public Involvement strategy that is appropriate for this route is more indicative of a Moderate LOI project. The more moderate/substantial elements of this project are it requiring fee right-of-way acquisition, being a reconstruction project with bridge replacements on an NH route with moderate traffic disruptions and construction delays. Other than those items all other LOI areas would be considered low impact.

Specific strategies identified in the project-specific Public Involvement Plan (as described in the Engineering Project Communication Process Guide) include:

Level C (Moderate or Substantial Impact)

1. News release explaining the project and including a department point of contact.
2. Project information, including public summary, posted to MDT website (GIS map).
3. Personal contacts with local and tribal government officials, interest groups, and other organizations.
4. Personal contacts with adjacent landowners at the time of right of entry and at major project milestones (PFR, AGR, PIH).
5. A right-of-way public information meeting to present the final proposed right-of-way plans.

Alignment and Grade Report

6. Electronic phase/milestone updates for stakeholders and other entities requesting updates.
Contact list maintained on project specific electronic database.
7. Notification of initial project selection to all parties on electronic notification list.
8. Construction notification and information during construction.

The Glendive District meets annually with the counties to keep them informed on current and upcoming projects. McCone County was at the latest meeting held on March 20, 2024, in Glendive and was presented with a summary of the project limits, scope, and estimated completion date. Another meeting will be scheduled sometime early in 2025 to update the county. The County and locals are very supportive of this project, and it is not anticipated that there will be any opposition. Once the right-of-way has been authorized for acquisition, agents will meet with landowners to acquire the needed right-of-way.

For the public involvement and outreach efforts, Big Sky Public Relations was contracted to assist MDT through the design and construction phases with a custom-tailored plan suited to not only this project's PI, but five projects along this corridor, each at different stages of development or already constructed. Note, as of today, two of the five projects have been completed in construction, with this and two projects to the west of this one remaining. The outreach efforts have been coordinated with each of the five projects by combining into one corridor wide public campaign spanning multiple years. **Open houses were held on September 18, 2019, in Circle and September 19, 2019, in Jordan** to inform the public about the upcoming projects. Additionally, the PI firm set up a corridor website to keep people informed during the development, through construction of all five projects on this corridor until it's completely rebuilt. This is expected to be completed within the next 4 years or less. Big Sky Public Relations has also been in contact with various public groups that have an interest in this project.

Preliminary Construction Cost Estimate

The cost estimate presented for the AGR resulted in a total CN of \$17.7 million, not including CE, IDC or inflation. Line items for Adhoc items such as drainage, signing & striping, and fencing do not factor into the 10% of the total for mobilization by default. An Adhoc Mob. line item needs to be added to capture that. The unit price for CAC was noted to be on the low side and recommended to increase to \$45/CUYD. No other significant comments were made that affect the estimate. The Estimate will be refined and updated for the scope-of-work report. The current cost estimate based on the noted AGR changes is as follows:

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
NH CN	\$17,400,000	\$865,972	\$20,742,837
HSIP CN	\$1,600,000	\$79,629	\$1,907,386
TOTAL CN	\$19,000,000	\$945,601	\$22,650,223
CE (10%)	\$1,900,000	\$94,560	\$2,265,022

Project TOTAL from all the funding types above:

Project TOTAL CN + CE	\$20,900,000	\$1,040,161	\$24,915,245
------------------------------	---------------------	--------------------	---------------------

The estimate above includes \$1,000,000 for traffic control, **12.5% allowance for contingency**, and **10% for mobilization**.

Note: Inflation is calculated in PPMS to the letting date. If there is no letting date, the project is assumed to be inside the current TCP and is given a maximum of 5 years until letting. IDC is calculated at 13.56% for FY 2024.

Alignment and Grade Report

NH-HSIP 57-6(23)260, BROCKWAY – WEST, UPN 9728000
EPS Project Manager: Steve Heidner

Page 9 of 9

Preliminary Engineering

The percent PE expended is 53%. A review of the expended preliminary engineering and hours used compared to the anticipated amounts required for completing the project design indicates that a modification is not needed.

Ready Date

The ready date is July 1, 2026, with a letting date of November 1, 2026. The current EPS schedule shows the project is ahead of schedule, with over 5 months of float remaining. The current PE End Date is December 31, 2025. A review of the remaining EPS schedule, critical path activities, and target letting date indicates that a modification to the PE End Date should be made to August 1, 2027. A PE End Date modification request will be made.

CC:

Steve Heidner, EPS Project Manager
MDT Headquarters Milestone Report Distribution <mdthqmilestonereport@mt.gov>
MDT D4 Milestone Report <mdtd4milestonerpt@mt.gov>
Mark Kurokawa, Maintenance Chief - Wolf Point
Jeremy Terry, Road Design Engineer
Shelby Clark, Bicycle/Pedestrian Coordinator