Guy Alsentzer
Upper Missouri Waterkeeper
24 S. Willson Ave, Ste. 6-7
Bozeman, MT 59715
Tel: (406) 570-2202
Guy@UpperMissouriWaterkeeper.org

Graham J. Coppes
FERGUSON & COPPES, PLLC
A Natural Resource Law Firm
PO Box 8359
Missoula, MT 59807
Tel: (406) 532-2664
graham@montanawaterlaw.com

Attorneys for Plaintiff

MONTANA EIGHTEENTH JUDICIAL DISTRICT, GALLATIN COUNTY

UPPER MISSOURI WATERKEEPER Plaintiff, v. MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY, an agency of the State of Montana Defendant.	Case No. DV-16-2025-0001847-DK **COMPLAINT FOR DECLARATORY & INJUNCTIVE RELIEF**

NATURE OF THE ACTION

1. Plaintiff Upper Missouri Waterkeeper ("Waterkeeper") brings this case challenging the Department of Environmental Quality's (DEQ or Department) failure to provide for any public notice or public participation opportunities on its consideration and phased approval of

the "Big Sky Canyon Area Lift Stations, Forcemain, and Reuse Pipeline" project (Pipeline or Project). *See* Exhibit A hereto, Pipeline Project Deviation.

2. Plaintiff also brings this case to daylight and correct Defendant's unlawful pattern and practice of treating water infrastructure decisions under Circular-2 as nonsignificant and exempt from public participation or Montana Environmental Policy Act (MEPA) processes.
3. The Pipeline Project is an essential component of what has been named the "Gallatin Canyon Sewer Project", a comprehensive regional wastewater collection, treatment, and disposal plan proposed jointly by the Gallatin Canyon County Water & Sewer District (GCCWSD) and Big Sky County Water & Sewer District (BSCWSD). *See generally*, Exhibit B.
4. DEQ has ultimate permitting and review authority over the Pipeline Project and the connected, overarching Gallatin Canyon Sewer Project pursuant to the Water Quality Act, Public Supply, Distribution, and Treatment Act, Public Participation in Government Act, and Montana Environmental Policy Act.
5. The Pipeline Project entails approximately 5,000 linear feet of a forcemain sewage line and a second, treated effluent main line (two pipelines) between a primary life station and a secondary lift station, adjacent to Highway 64 and running parallel to reaches of the West Fork Gallatin River.
6. The Pipeline Project's deviation application to DEQ explicitly describes the Project's purpose as: serving sewage collection in Big Sky's Canyon Area; a sewage conveyance structure up to Big Sky's Meadow Area for wastewater treatment by the Big Sky County Water & Sewer District; and conveyance of treated wastewater back to the Canyon Area for disposal through a related groundwater discharge permit, sought by the Gallatin Canyon Water & Sewer District and currently being considered by Defendant DEQ.

7. DEQ approved Deviation Number DEQ 2-2129 for the Pipeline on June 18, 2025. By the deviation application's own language, "the project will potentially cease if a deviation is not granted." Thus, the approval of the deviation request represents a critical "go, no go" juncture at which the Project would either become viable or would stop. Exhibit A.
8. Prior to making its June 18, 2025, decision DEQ did not provide for any public notice or public participation opportunities concerning the Pipeline Project.
9. Prior to making its June 18, 2025, decision DEQ did not draft or publish any environmental reviews of the Pipeline Project or connected actions or activities concurrently being reviewed by the Department pursuant to the Montana Environmental Policy Act.
10. In Fall 2025, Plaintiff made a Right to Know Request of DEQ concerning: "all agency documents, communications, applications, or reports from December 4, 2024 to present, including but not limited to emails, text messages, correspondence, or analyses, concerning the following: (1) Any proposed centralized wastewater collection system(s) in Big Sky's Canyon Area, and any pipeline conveyances to or from the Canyon Area to the Big Sky County Water & Sewer District, and vice-versa; (2) Any proposed groundwater or surface water discharge or land application disposal permit applications for Big Sky's Canyon Area, or preliminary permit meetings, correspondence including text messages or online chat platforms, or narratives in support thereof; (3) Any analysis, scientific investigation, correspondence, communication or findings regarding groundwater characterization in Big Sky's Canyon Area, including but not limited to groundwater hydrologic connectivity to the Gallatin River; (4) Any agency analyses or findings made regarding proposed wastewater collection, treatment, or disposal systems in Big Sky's Canyon Area under the Montana Environmental Policy Act (MEPA) or the Montana Water Quality Act (MWQA)."

11. DEQ responded to Plaintiff on November 17, 2025, providing Plaintiff a variety of responsive documentation.

12. Plaintiff first gained knowledge of DEQ's June 18, 2025, decision-making regarding the Pipeline Project and its relationship to a variety of related regional wastewater collection, treatment, and disposal plans concurrently under review by DEQ when the agency disclosed responsive files on November 17, 2025.

13. As of the filing of this Complaint, thirty days or less have elapsed since Plaintiff gained knowledge of DEQ's decision-making and corollary failure to provide public participation opportunities or necessary environmental reviews at-issue in this case.

JURISDICTION & VENUE

14. This Court has subject matter jurisdiction over claims brought under Article II, Sections 3, 8, 9, and 16, Article VII, Section 4(1), and Article IX, Sections 1 & 3, of the Montana Constitution; MCA § 2-3-101 et seq. (Public Participation in Government Act); MCA § 27-8-202 (declaratory relief); MCA § 75-5-101 et seq (Water Quality Act); MCA § 75-6-101 et seq (Public Water Supply, Distribution, and Treatment Act); MCA § 75-1-201(5)(a)(i) (MEPA); MCA § 27-19-101 (injunctive relief); MCA § 27-8-101, et seq., (Montana Declaratory Judgments Act); MCA § 2-4-101 et seq. (Montana Administrative Procedure Act); and as an informal administrative agency action.

15. Venue lies in Gallatin County pursuant to MCA § 25-2-126, MCA § 75-1-108, and MCA § 2-4-506(4) because Plaintiffs are located and have their principal place of business in this judicial district, and because this court is the county of venue in which the action arose.

16. This action "must take precedence over other cases or matters in the district court unless otherwise provided by law." MCA § 75-1-201(5)(b).

PARTIES

17. Plaintiff Upper Missouri Waterkeeper ("Waterkeeper") is a Montana public-benefit, member-supported environmental advocacy and public education organization based in Bozeman, Montana. Waterkeeper works to protect and restore fishable, swimmable, drinkable water and community health throughout the 25,000 square miles of Southwest and West-central Montana's Upper Missouri River Basin, including the Gallatin and Madison subwatersheds. Hundreds of individuals in Montana and around the country support Waterkeeper as members, financially and with their activism.

18. Since its founding in 2013, Waterkeeper has advocated and litigated at the local, state, and federal level to prevent degradation of water resources and to protect community health and the environment. Waterkeeper is also dedicated to assuring that state officials comply with and fully uphold the laws of Montana that are designed to protect the environment from degradation. Waterkeeper's advocacy has included the protection of water resources from surface and groundwater contamination, misuse, and degradation from wastewater, and ecological and public health impacts from commercial, residential, and industrial sectors and similar activities authorized by the DEQ.

19. Members of Plaintiff live in the State of Montana, including in the community of Big Sky and adjacent to the Gallatin River, and travel to the State and use the Gallatin River and its tributaries for aesthetic, pecuniary, recreational and ecological purposes, including the areas proximate and downgradient from the Pipeline Project and related proposed groundwater discharge permit. Waterkeeper members use water and landscapes adjacent and proximate to the Pipeline Project, including public lands surrounding the area, and intend to use said lands and waters for these purposes in the future.

20. Waterkeeper members have an interest in preserving water resource quality, quantity, and health, and protecting wildlife distinct from the public in general. More specifically, members use the Gallatin River and its tributaries such as the West Fork Gallatin River, for recreation, business, and nature appreciation, and those interests will be adversely affected by pollution from the Pipeline Project and its related components. Waterkeeper members also have an interest in understanding and participating in government decision-making concerning regional wastewater treatment and disposal strategies for the resort community of Big Sky, including a thoughtful and comprehensive public process demonstrating how proposed wastewater infrastructure projects funded in part by taxpayer dollars will impact the quality of the human environment.
21. In addition, Plaintiff's members have an interest in sound land use planning and protecting the scenic, historic, and aesthetic qualities of the Greater Yellowstone Ecosystem and promoting orderly, planned growth, and such interests are adversely affected by DEQ's unlawful actions herein.
22. All the aforementioned interests are harmed when Plaintiff is not afforded any notice or public participation opportunities, nor able to review any environmental review by action agencies, of government actions with potentially significant impacts on the human environment.
23. Plaintiff Waterkeeper and its members have as their mission the goal of protecting water resources, public health, and insuring compliance with the laws and regulations of Montana and the United States. Plaintiff and its' members' interest in lawful governance and adherence to proper legal procedure is adversely affected by DEQ's actions at issue herein. This action is brought on Plaintiffs' behalf and on behalf of its members.

24. Defendant Montana Department of Environmental Quality is an agency of the State of Montana, headquartered in Helena, MT. DEQ implements environmental imperatives and public participation mandates of the Montana through its administration of the Montana Environmental Policy Act MCA § 75-1-101 et seq. and the Water Quality Act, MCA § 75-5-101 et seq. The agency also administers the Public Water Supply, Distribution, and Treatment Act, MCA § 75-6-101 et seq.

FACTUAL & LEGAL BACKGROUND

A. Montanans' Constitutional Rights

25. The fundamental public participation and environmental protection guarantees of Montana's Constitution undergird and animate DEQ's decision-making processes, including its consideration of new public sewage collection, treatment, and disposal systems.

26. The public has the fundamental right to expect governmental agencies to afford reasonable opportunity for citizen participation in agency decision-making prior to final decisions. Mont. Const. Art. II, § 8.

27. The public also has a right to examine documents and observe deliberations of all agencies, including the ability to know of a decision of significant interest to the public before it is rendered. *Id.* § 9.

28. The right to know is a companion to the right of participation. *Bryan v. Yellowstone County Elem. Sch. Dist. No. 2,* 2002 MT 264, ¶ 30, 312 Mont. 257, ¶ 30, 60 P.3d 381, ¶ 30. "Both arise out the increasing concern of citizens and commentators alike that government's sheer bigness threatens the effective exercise of citizenship." *Id.* (quoting Mont. Const. Conv. Comm. Rep. 631 (1972)).

29. "Public awareness and access seem to be the only tools to remind the great mass of public servants that their job is to serve the needs of the public and no other; they are paid by tax dollars to benefit the public above all else." *Id.* (quoting 5 Mont. Const. Conv. Transcripts 1655, 1657 (1972)).

30. "To participate effectively and knowledgeably in the political process of a democracy one must be permitted the fullest imaginable freedom of speech and one must be fully apprised of what government is doing, has done, and is proposing to do." *Bryan v. Yellowstone Sch. Bd. Dist. No. 2,* 2002 MT 264, ¶31 (2002), *quoting* Larry M. and Deborah E. Elison, *Comments on Government Censorship and Secrecy,* 55 Mont. L. Rev. 175, 177 (1994).

31. Montana's Constitution also contains the "strongest environmental protection provision(s) found in any state constitution." *MEIC v. DEQ*, 1999 MT 248, ¶ 66, 296 Mont. 207, 988 P.2d 1236.

32. The Montana Constitution enshrines the "inalienable" "right to a clean and healthful environment." Mont. Const. Art. 2 § 3. This inalienable right entails corresponding responsibilities. Thus, "[t]he state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations." *Id.* Art. IX, §1(1).

33. The state must "provide adequate remedies for the protection of the environmental life support system from degradation and...adequate remedies to prevent unreasonable depletion and degradation of natural resources." *Id.* Art IX, § 1(3).

34. These provisions are "both anticipatory and preventative and do not require that dead fish float on the surface of our state's rivers and streams before the Montana Constitution's farsighted environmental protections can be invoked." *Park Cnty. Envtl. Council v. DEQ,* 2020 MT 303, ¶ 61, 402 Mont. 168, 477 P.3d 288 (quoting *MEIC* ¶ 77).

35. DEQ has traditionally applied the Montana Environmental Policy Act as the primary mechanism for both assuring public participation and informing decision-makers on possible consequences of projects under its authority.

36. "MEPA requires environmental review prior to government actions that may significantly affect the human environment." *Held v. State*, ¶ 59. As the Held court summarized, MEPA's purpose has long been to "better enable the Legislature to fulfill its constitutional obligations and to assist the legislature in determining whether laws are adequate to address impacts to Montana's environment and to inform the public and public officials of potential impacts resulting from decisions made by state agencies." *Id.*, internal citations omitted.

B. The Pipeline Project

37. The Pipeline Project's application states that DEQ rules require a 10' separation between a forcemain and reuse pipeline, but the Project cannot proceed without a deviation from this requirement because of limited space along Highway 64 and the unwillingness of the United States Forest Service, a private landowner with adjacent property, or the Montana Department of Transportation to allow different pipeline placements. "Providing 10 feet of separation threatens MDT approval of the project, and the project will potentially cease if a deviation is not granted[.] This project will greatly improve the treatment of wastewater generated in the Canyon Area to Class A-1 standards and dispose of effluent in a manner that better protects public health and environmental health." Exhibit A, page 2 "Problem Statement", page 3, "Justification."

38. Later, the Deviation Application explicitly references the Pipeline Project's inextricable relationship to a related proposal for a multi-location groundwater discharge permit; that discharge permitting application is contemporaneously being considered by DEQ.

Specifically, the Deviation Application asserts "[t]his project will improve the health of the Gallatin River in addition to removing continued pollution from raw septage and replacement of minimally treated septage with Class A-1 reclaimed wastewater. Much higher quality reclaimed water than the existing wastewater will be returned to supplement flows in the Gallatin River and will improve the river's health." Ex. A, "Justification", page 8.

39. The Deviation Application subsection entitled "Human and Environmental Health Considerations" alleges three "major human and environmental health benefits of the [.] project: (1) improvement of water quality entering the Gallatin River Water Shed; (2) the decreased risk of human contact with minimally treated sewage, and (3) the decreased risk of human consumption of drinking water wells that are downgradient of septic systems and have elevated levels of Nitrate." "Without the completion of this project, the ongoing degradation of the Gallatin River will persist, further compromising its water quality and ecosystem. Completing the project will take a proactive approach to controlling the contaminants entering the river." Id, Ex. A, pages 10-11.

40. The Pipeline Project would thus be the conveyance structure in-fact making possible the treatment of sewage by the BSCWSD and upon return of such wastewater to the Canyon, disposal by the GCCWSD through a related, pending discharge permit application nearby the Gallatin River.

41. The Pipeline Project's character and purpose of conveying sewage and treated effluent for existing and prospective land use, and its proposed location adjacent to reaches of the West Fork Gallatin River, are of significant interest to the public.

C. The Gallatin Canyon Sewer Project

42. DEQ's November 17, 2025, response to Plaintiff's Right to Know Request also disclosed a document entitled "Gallatin Canyon Sewer Project, Request for Qualifications". This document explains how the Gallatin Canyon and Big Sky County water and sewer districts are jointly proposing a new, regional wastewater collection, conveyance, treatment and disposal plan in the community of Big Sky. *See generally*, Exhibit B.

43. According to that document, the applicant has broken the Gallatin Canyon Sewer Project into two phases. Phase A includes the construction of a new sewer system to serve the Gallatin Canyon Sewer District in Big Sky's Canyon Area, including "sewer collection, conveyance, and disposal infrastructure in the Gallatin Canyon Area." *See* Exhibit B at 2 or 9. Phase B includes "pumping raw wastewater along MT Hwy 64 from the US Hwy 191 intersection up to the existing BSCWSD Water Resource Reclamation Facility (WRRF) [.] and returning the Class A-1 treated effluent to the Gallatin Canyon Area for various underground and surface applied disposal applications." Exhibit B at 3 of 9.

44. Since at least Spring 2024, DEQ has been aware of, and is in-fact considering at present, various components of the Gallatin Canyon Sewer Project under different permitting and/or licensing authorities.

45. DEQ is currently evaluating an application for a groundwater discharge permit by the GCCWSD for new wastewater disposal at various locations in Big Sky's Canyon Area.

46. In emails dated January 3, 2025, between the Pipeline Project applicant and DEQ concerning a final pipeline deviation request, the agency was specifically advised the purpose of the Pipeline Project is to facilitate conveyance, treatment, and disposal of sewage in the Canyon

Area, including proposed disposal locations, volumes, and concentrations of nutrient pollutants.

47. In a series of emails between the Pipeline Project applicant and DEQ staffers dated October 31, 2024; November 4, 2024; May 1, 2025; May 2, 2025; and July 24, 2025, DEQ was specifically advised of, and provided its assent to, how agents of the GCCWSD were proposing design, management, and permitting of the Gallatin Canyon Sewer Project, including how the sewer district would seek funding from the State Revolving Fund, a grant program supporting wastewater infrastructure projects using taxpayer funds and which is administered by DEQ.

48. A series of emails between the Pipeline Project applicant and DEQ staffers starting on June 24, 2024 and ending on April 9, 2025, details agency and applicant discussions about treatment and disposal of reclaimed wastewater after conveyance through the Pipeline Project at proposed Rapid Infiltration Basins in the Canyon Area. Among other items, the Project applicant disclosed to DEQ its desire to dispose of approximately 130,000 gpd wastewater through subsurface drainfields year-round, plus an additional 550,000 gpd of land application disposal on various parcels in the Canyon Area.

49. DEQ has not published a draft discharge permit application for public review or requested any public comment, nor offered any MEPA analyses concerning the Gallatin Canyon Sewer Project as of the date of this complaint.

D. The Impaired Middle Segment Gallatin River

50. DEQ has determined, and EPA has approved, a nuisance algal bloom impairment determination for the middle segment Gallatin River.

51. Among other findings, DEQ determined that the middle segment Gallatin River was being harmed by recurrent nuisance algal blooms which preclude attainment of its recreational and aquatic life beneficial uses at law.

52. Nutrient pollution, especially by Nitrogen and Phosphorus, is among the most pervasive sources of impairment to surface waters in the State of Montana, and nationally. Cultural eutrophication (often abbreviated as "eutrophication") is the process of Nitrogen (N) and Phosphorus (P) contamination of surface waters from human-related sources that add high levels of N and P, relative to what is natural background, so that the affected aquatic ecosystem is pushed out of balance to an unhealthy state.

53. Increased nutrient loads above natural background levels often stimulate too much algal growth, especially of "weedy" or nuisance, pollution-tolerant species that grow best with elevated nutrients.

54. Nuisance algal blooms are a common biological response to nutrient enrichment of freshwater.

55. Nutrient pollution can damage aquatic ecosystems in two basic ways: First, through an increase in the available *amounts (supplies*) of N and P that stimulate outbreaks ("blooms") of nuisance algae; and second, through a shift in the proportion (*supply ratio*) of N relative to P supplies. Surface waters affected by nutrient pollution usually have both problems: the N and P supplies are elevated in comparison to background (reference or minimally impacted) conditions, and the N:P ratio is skewed so that the aquatic communities have been pushed into what is referred to as "stoichiometric imbalance."

56. Nutrients, including in particular nitrogenous compounds, can lead to a variety of far-field effects on aquatic ecosystems, impacting water quality and biodiversity through

eutrophication, algal blooms, oxygen depletion, and changes in the structure and function of aquatic food webs. The most predictable outcomes flowing from nutrient enrichment of oligotrophic ecosystems are loss of sensitive species and increased abundance of generalist or opportunistic species that are more resistant to the undesirable water quality changes and other stresses imposed by nutrient pollution.

57. Eutrophication has significant impacts on freshwater aquatic communities. The blooms can deplete DO at night from respiration, then cause dramatic increases in DO with photosynthesis during the day, and the wide diel variation can stress and weaken sensitive aquatic life. Algal overgrowth alters critical bottom habitat so that sensitive fish such as salmonids cannot use it for spawning and recruitment. Photosynthetic activity from the high algal biomass can elevate the pH to levels known to adversely affect young life history stages and gill function in sensitive fish species such as salmonids. Decomposition of high-biomass algal blooms can decrease DO availability.
58. DEQ is presently conducting scientific research necessary to completion of requisite Total Maximum Daily Loads (TMDL) for the impaired middle segment Gallatin River.
59. A TMDL is a planning tool setting forth reductions from pollutant sources necessary to restore an impaired waterbody to health and attainment of all beneficial uses.
60. Potential pollutants subject to a prospective middle segment Gallatin River TMDL include limits on anthropogenic contributions of nutrient pollutants to the middle segment Gallatin River from various sources.
61. The Gallatin Canyon Sewer Project could affect nutrient loading of the middle segment Gallatin River. As such, it is both of significant public interest and requires thoughtful and transparent environmental review of its opportunities and consequences.

62. Over a thousand public comments and more than a dozen non-governmental organizations expressed interest in and supported an impairment determination and related restoration plan for the Gallatin River.

63. Similarly, DEQ has received significant public comment concerning any decision relating to public wastewater treatment and disposal in Big Sky and the Gallatin River since at least 2018, the year in which nuisance algal blooms began occurring each summer in the Gallatin River.

64. Wastewater infrastructure planning, treatment and disposal in the community of Big Sky is an issue of significant public interest.

E. DEQ's Failure to Provide for Public Participation on Its Decision-making for the Pipeline Project and Failure to Perform a Comprehensive Environmental Review of the Gallatin Canyon Sewer Project Violates the Law

65. Without any notice to the public, no one could have known DEQ was making important decisions on a Pipeline Project, nor could the public have exercised any meaningful opportunity to participate in agency processes before it approved the Pipeline Project and/or that project's self-described critical Deviation Request.

66. Without any notice or public participation opportunities concerning its knowledge and decision-making responsibilities over the Gallatin Canyon Sewer Project's interconnected sewage collection, treatment, conveyance and disposal plans, DEQ short-circuited meaningful evaluation of potentially significant impacts, including connected actions by type, kind, and location under concurrent review by the agency, and also avoided evaluation of the necessity for an environmental impact study pursuant to the Montana Environmental Policy Act.

67. DEQ abused its discretion by allowing project applicants to dictate the disclosure and timing of inextricably connected sewage infrastructure elements of the Gallatin Canyon Sewer Project, thereby frustrating meaningful public participation opportunities or holistic review under the Montana Environmental Policy Act.

FIRST CLAIM FOR RELIEF

(Violation of Meaningful Public Participation Opportunity in Agency Decisions)

68. The foregoing allegations are re-alleged and incorporated by reference.

69. Article II, Section 8 of the Montana Constitution guarantees the public a "right to expect government agencies to afford such reasonable opportunity for citizen participation in the operation of the agencies prior to the final decision as may be provided by law."

70. Article II, Section 9 of the Montana Constitution guarantees "no person shall be deprived of the right to examine documents or to observe the deliberations of all public bodies or agencies of state government and its subdivisions, except in cases in which the demand of individual privacy clearly exceeds the merits of public disclosure."

71. Article II, Sections 8 and 9 are cooperative mechanisms through which concerned citizens can advocate for their right to a clean and healthful environment under Article II, Section 3 of the Montana Constitution.

72. Unlike the Right to Know in Article II, Section 9, the Right of Participation is not self-executing, but rather is applicable "as may be provided by law," requiring enabling statute to effectuate it.

73. MCA § 2-3-101 et seq. effectuates the Right to Know, and its requirements apply to DEQ as an "agency" of the state.

74. MCA § 2-3-103(1)(a) requires each state agency, including DEQ, possess procedures that "ensure adequate notice and assist public participation before a final agency action is taken that is of significant interest to the public."

75. DEQ traditionally effectuates public participation for its decision-making through its MEPA implementing rules at ARM 17.4.601 et seq.

76. DEQ has a legal duty to provide for meaningful public participation on agency actions that are not ministerial in nature.

77. DEQ's approval of the Pipeline Project and/or its Deviation decision, required the exercise of agency discretion.

78. DEQ never published notice or provided a public comment opportunity regarding its consideration or approval of the Pipeline Project or that project's Deviation, despite such decision being labeled by the applicant as dispositive to the larger, related Gallatin Canyon Sewer Project.

79. Neither the public or Plaintiff were given notice or an ability to comment on DEQ's decision-making regarding the Pipeline Project or its Deviation, including its direct, indirect, or cumulative impacts.

80. DEQ's failure to provide for any public notice or participation opportunities on its incremental consideration and approval of the Pipeline Project, including the Deviation's character as that project's "go, no go" juncture, violated the public's right to know and to "expect governmental agencies to afford such reasonable opportunity for citizen participation in the operation of the agencies prior to the final decision." Mont. Const. Art. II, §§ 8, 9; MCA § 2-3-111(1).

SECOND CLAIM FOR RELIEF

(Violation of the Montana Environmental Policy Act)

81. The allegations in the foregoing paragraphs are re-alleged and incorporated herein by reference.

82. MEPA requires state agencies to carefully scrutinize the potential environmental consequences of their actions. § 75-1-101, *et seq.*, MCA; ARM 17.4.601 *et seq.* "MEPA requires that an agency be informed when it balances preservation against utilization of our natural resources and trust lands." *Ravalli County Fish & Game Ass'n, Inc.,* 273 Mont. at 385, 903 P.2d at 1371. Thus, state decision makers are prohibited from "reach[ing] a decision without first engaging in the requisite significant impacts analysis." *Id.*

83. Under ARM 17.4.608(1), to implement MEPA the agency shall determine the significance of impacts associated with a proposed action. This determination is the basis of the agency's decision concerning the need to prepare a more robust review via an environmental impact study and also refers to the agency's evaluation of individual and cumulative impacts in an environmental assessment (EA).

84. To determine a project's significance, "[t]he agency shall consider [.] (b) the probability that the impact will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur; (c) growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts, (d) the quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources or values, (e) the importance to the state and to society of each environmental resource or value that would be affected, (f) any precedent that would be set as a result of an

impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions; and (g) potential conflict with local, state, or federal laws, requirements, or formal plans." ARM 17.4.608(1).

85. Among other items, an EA must include: (d) an evaluation of the impacts, including cumulative and secondary impacts, on the physical environment [.] " ARM 17.4.609(3).

86. "Cumulative impact" means the collective impacts on the human environment of the proposed action when considered in conjunction with other past and present actions related to the proposed action by location or generic type.

87. An EA must also include an evaluation of alternatives to the proposed action. 75-1-201(b)(iv)(C); ARM 17.4.609(3)(f).

88. DEQ failed to perform any MEPA review for the Pipeline Project, including its Deviation Request, which was characterized by the applicant as a lynchpin to the larger, related Gallatin Canyon Sewer Project, and which is concurrently being reviewed by DEQ.

89. DEQ's failure to perform any MEPA review for the Pipeline Project or its connected actions, including but not limited to a proposed groundwater discharge permit application simultaneously being considered by the agency, unlawfully segments agency review of a project with potentially significant impacts on the human environment.

90. Because approval of the Pipeline Project and its deviation represent a critical "go, no go" juncture in the larger Gallatin Canyon Sewer Project, any prospective MEPA review after the pipeline's approval would neither meaningfully capture potential impacts of the entire, connected plan of activities or be compliant with DEQ's MEPA implementing rules.

91. The same agency failures frustrate public knowledge and engagement in an issue of significant public interest, i.e., frustrates public knowledge and participation in a

comprehensive review of a regional sewage collection, treatment, and disposal plan for the community of Big Sky with a direct relationship to restoration of the Gallatin River.

92. Any decision to authorize a municipal-scale wastewater discharge permit in Big Sky's Canyon Area in combination with the related Pipeline Project, would factually mean the community can no longer truthfully brand itself a "zero discharge" locale and represents an issue of "significant public interest".

93. DEQ's failure to implement the plain imperatives of MEPA also provide a basis for a claim that DEQ failed to take a "hard look" at the environmental consequences. *Ravalli Co Fish and Game Ass'n v. Mont. Dept. of State Lands,* 273 Mont. 371, 377, 903 P.2d 1362 (1995).

94. For the reasons described above, DEQ abused its discretion and acted unlawfully, arbitrarily and capriciously, when it failed to provide notice or any meaningful public participation opportunities regarding its decision-making for the Pipeline Project, its deviation, and the connected suite of actions related to the Gallatin Canyon Sewer Project concurrently under agency consideration, including specifically a failure to initiate a holistic MEPA evaluation of the Pipeline Project and related, pending, groundwater discharge permit it would serve.

THIRD CLAIM FOR RELIEF

(Declaratory Judgment)

95. The foregoing allegations are re-alleged and incorporated by reference.

96. Beyond the as-applied facts of the current case, DEQ has in the past, is currently, and threatens in the future to continue its systemic failure to provide any public notice, or public participation opportunities, on significant environmental decisions that ostensibly entail substantial engineering and infrastructure planning and approvals under DEQ Circular-2.

97. Recently, DEQ approved an analogous new, regional wastewater treatment and disposal system for existing and future commercial development immediately outside of Yellowstone National Park, applying design standards under DEQ Circular 2, all while failing to provide any public notice, or public participation opportunities. *See Upper Missouri Waterkeeper vs. DEQ et al*, Case No. DV-16-2023-1014-DK, 18th Judicial District.

98. Through litigation of that case, DEQ staff testimony revealed the agency does not, by default or under rule, provide for any public notice or participation opportunities for its engineering decisions related to public water supply, distribution or treatment and Circular-2 decisions, and likewise determines in a vacuum with unfettered discretion whether to conduct any MEPA analysis for these types of water infrastructure projects.

99. Instead, DEQ has determined – internally and informally - that projects involving engineering and infrastructure decision-making under Circular-2 are not of significant interest to the public.

100. Similarly, DEQ has determined – internally and informally – that so long as an application complies with an engineering design standard under Circular-2, there can never be any significant impacts to the environment from the project(s) they are approving.

101. Because DEQ determines any decision compliant with Circular-2 per se nonsignificant, there is never a meaningful environmental analysis conducted for those projects, and so too no project approved under Circular 2 could ever merit a significance determination triggering the performance of an Environmental Impact Study. This is true despite the potential for multiple engineering projects to be determined nonsignificant individually, while their collective impact as part of a plan of development could be cumulatively significant.

102. DEQ Circular-2 standards and metrics are not designed to assess direct, indirect, or cumulative impacts on the environment, nor are they designed to assess significance under MEPA.

103. Nor are DEQ Circular-2 standards and metrics designed to use a systematic, interdisciplinary approach that ensure the integrated use of natural and social sciences and environmental design.

104. Likewise, Circular-2 does not entail or require a consideration of alternatives to a project, or ensure environmental reviews are conducted before the irreversible and irretrievable commitments of resources involved in a project.

105. DEQ's application of its unwritten and informal policy that engineering projects compliant with Circular-2 are per se nonsignificant and do not require public participation or MEPA review constitutes use of a standard of general applicability, with legal force, without complying with notice and comment rule procedures of the Montana Administrative Procedure Act (MAPA).

106. Each time the agency applies its unwritten and informal policy that projects compliant with Circular-2 are nonsignificant decisions requiring no notice, public comment, or environmental review, doing so represents a binding application of law, and final agency action cognizable under MAPA.

107. Pursuant to MCA §§ 27-8-201 et seq., and 2-4-506, Plaintiff seeks and is entitled to a declaration that DEQ's informal practice determining projects that are compliant with Circular-2 metrics exempt from any public notice or public participation opportunities constitutes an unpromulgated rule violating MAPA.

108. Furthermore, pursuant to MCA §§ 27-8-201 et seq., and 2-4-506, Plaintiff seeks and is entitled to a declaration that DEQ's informal rule as-applied to its Circular-2 decision-making in this case violates Plaintiffs' constitutional and statutory rights to public participation and is unlawful.

109. Defendant's actions in this case have and threaten to segment its review of inextricably connected elements of the Gallatin Canyon Sewer Project - a series of wastewater infrastructure projects completely within the agency's exclusive control and well-known to the agency - to levels where nonsignificance findings are predetermined and the irretrievable commitment of resources are authorized, yet no public notice or environmental review(s) has occurred.

110. As described above, through its mission and work Plaintiff is aware that this course of conduct is the regular pattern and practice of the agency regarding water and wastewater infrastructure projects authorized under Circular-2 across the board.

111. The Montana Supreme Court has addressed this issue on multiple occasions and the law is clear: "an agency must analyze effects under MEPA whenever there is 'a reasonably close causal relationship between the triggering state action and the subject environmental effect*.*" *Montana Envtl. Info. Ctr. v. Montana Dept. of Envtl. Quality,* 2025 MT 3, ¶ 48, 420 Mont. 150, 172, 561 P.3d 1033, 1047 (internal citations omitted).

112. Similarly, the Supreme Court has held that "state agencies must adequately consider, 'to the fullest extent possible' within the scope of their independent authority, all direct and secondary environmental impacts that will likely result from the specific activity conducted or permitted by the agency." *Id*.; *see also Held v. State*, ¶¶ 61-64.

113. Thus, based on the facts plead here and DEQ's informal, unpromulgated pattern and practice of decision-making under Circular-2, pursuant to MCA §§ 27-8-201 et seq. and 2-4-506, Plaintiff seeks and is entitled to a declaration that DEQ's failure to exercise its authority and require comprehensive applications regarding the connected elements of the Gallatin Canyon Sewer Project (including the critical Pipeline and Discharge Permit components), and its failure to perform environmental review and provide any public notice and public participation opportunities for the same, violates MEPA and the agency's regulations at ARM 17.4.601 et seq.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court grant the following relief:

A. Declare that DEQ's decision-making regarding the Pipeline Project violated Plaintiff's Right to Know and Right to Participate under the Public Participation in Government Act and Montana Constitution;

B. Declare that DEQ acted arbitrarily and capriciously, and violated MEPA by failing to perform any environmental analysis of the Pipeline Project or its Deviation Request;

C. Declare that DEQ acted arbitrarily and capriciously, and violated MEPA by segmenting its review of the Gallatin Canyon Sewer Project into respective, time-separated parts;

D. Declare DEQ's informal pattern and practice of treating projects compliant with Circular-2 as nonsignificant and exempt from public participation requirements or MEPA, including as regards the Pipeline Project, an unpromulgated rule that violates MAPA and violates constitutional and statutory public participation requirements;

E. Vacate DEQ's approval of the Pipeline Project and/or its Deviation, and remand this matter to the agency for public processes and reconsideration in light of statutory and constitutional mandates;

F. Enjoin DEQ from authorizing any connected action related to the Gallatin Canyon Sewer Project unless and until DEQ performs the requisite comprehensive environmental reviews required by MEPA;

G. Grant Plaintiffs their costs and attorneys fees as allowed by law;

H. Grant Plaintiffs such additional relief as the Court may deem just and proper.

Respectfully submitted on this 17th day of December, 2025.

/s/ Guy Alsentzer

/s/ Graham J. Coppes

Attorneys for Plaintiff

EXHIBIT A

APPROVED
Montana Department of Environmental Quality
Michelle Marsh 6/18/2025
Reviewer Date

ATTACHMENT A

DEQ
Montana Department of Environmental Quality

DEVIATION NUMBER: DEQ2-2129

OK - MMM
Yes - MW

PUBLIC WATER AND SEWAGE SYSTEM DEVIATION REQUEST

FOR DEVIATIONS SUBMITTED BY A PROFESSIONAL ENGINEER

Sanitation in Subdivision and Public Water Supply Acts

Project Name: Big Sky Canyon Area Lift Stations, Forcemain, and Reuse Pipeline DEQ or EQ Number (if known):_____

Engineer Name: Advanced Engineering and Environmental Services (AE2S), LLC

Circular/Rule:

□ DEQ-1 Water Works
☒ DEQ-2 Wastewater Facilities
□ DEQ-3 Small Water Systems
□ DEQ-4 Subsurface Wastewater Treatment
□ DEQ-8 Subdivision Storm Drainage
□ DEQ-10 Springs for Public Water Systems
□ ARM 17.36
□ ARM 17.30

STANDARD OR RULE NUMBER: DEQ-1: 8.8.4; DEQ-2: 38.31; DEQ-2: Appendix B - B.5

EXISTING STANDARD/RULE LANGUAGE:
See attachment.

PROPOSED STANDARD/RULE LANGUAGE:
See attachment.

JUSTIFICATION: ***attach additional information as necessary***
See attachment.

In accordance with ARM 17.38.101 (4) (j), I certify that strict adherence to the above standard is not necessary to protect public health and the quality of state waters.

Kelsey C Wagner
(Signature of Professional Engineer)

MONTANA
KELSEY C. WAGNER
(Date Signed) 6/13/2025
No. 86682 PE
LICENSED PROFESSIONAL ENGINEER

Montana P.E. Number_____

For Department Use Only:
Review Engineer's Recommendation:

Approve
6-18-2025
Katie Lightly

Deviation Request for the Big Sky Canyon Area Lift Stations, Forcemain, and Reuse Pipeline Project

DEQ No.:

Standard or Rule Number: DEQ-1 Section 8.8.4; DEQ-2; Section 38.31; Appendix B; Section B.5.

EXISTING STANDARD/RULE LANGUAGE:

DEQ Circular 1 Section 8.8.4 - There must be at least a 10 – foot horizontal separation between water mains and sanitary sewer force mains. There must be an 18-inch vertical separation at crossing per Section 8.8.3.

DEQ Circular 2 Section 38.31 - Sewer must be laid at least 10 ft (3m) horizontally from any existing or proposed water main. The distance must be measured edge to edge.

If the proper horizontal separation as described above cannot be obtained, the design engineer shall submit a request for deviation along with a description of the problem and justifying circumstances. If the deviation is granted, the sewer must be designed and construction with the following minimum conditions:

a. Sewers must be constructed of slip-on mechanical joint pipe complying with public water supply design standards (DEQ 1) and be pressure tested to minimum 150 psi to assure watertightness.
b. Sewer services utilizing in-line fittings and extending to at least property lines must be installed and tested in the area of encroachment. Saddles are not acceptable.

Appendix B Section B.5 - Note that circular DEQ 1 must be used with the interpretation that reclaimed wastewater is to be considered sewage for the purpose of complying with Section 8.8 (Separation of Water Mains, Sanitary Sewers, and Storm Sewers). Likewise, in DEQ 2, Section 38.3 (Relation to Water Works) adequate separation must be maintained between pipes carrying sewage and pipes carrying reclaimed wastewater. Therefore, the required vertical and horizontal separation distances must be met.

PROPOSED STANDARD/RULE LANGUAGE:

Public wastewater systems will submit a deviation request when ten feet of horizontal separation between pipes carrying sewage and pipes carrying reclaimed wastewater cannot be maintained including a description of the problem, justifying circumstances, and design and construction details.

PROJECT SPECIFIC PROPOSED STANDAR/RULE LANGUAGE:

The deviation request for the Big Sky Canyon Area Lift Stations, Foreman, and Reuse line would be a deviation from existing standards; **DEQ Circular 1 Section 8.8.4** and **DEQ Circular 2 Section 38.31** to allow the installation of a sanitary sewer forcemain and a non-potable reuse main with less than 10ft of horizontal separation.

The requested deviation pertains to the segment of pipeline alignments along Highway 64, between Lift Station 1 (LS1) and Lift Station 2 (LS2) where site constraints prevent compliance with the standard separation requirements. We propose that within this segment of pipelines to maintain a minimum of 3-

ft horizontal separation, and a minimum of 1-inch vertical separation between the forcemain and reuse main.

LS1 is currently located approximately 175 yards northwest of the intersection of HWY 191 and HWY 64. LS2 is located on the west boundary of USFS property approximately 0.9 miles west of LS1. The approximate length of force main and reuse main to deviate from these standards is 5,000 linear feet. 3,650

Following the pipeline crossing of the West Fork of the Gallatin the proposed pipeline alignments up to the Big Sky Water Reclamation Facility (WRFF) will be installed with 10 feet or more of horizontal separation between the forcemain and reuse main, in accordance with applicable standards. The following narrative describes the problem, justifying circumstances, and design and construction details.

Attachments:

A) Big Sky Canyon Area Lift Stations, Forcemain and Reuse pipeline 60% Civil Plan Set

PROBLEM STATEMENT:

A 10 ft horizontal separation between the forcemain and reuse pipeline along the segment from LS1 to LS 2 within the Highway 64 canyon corridor in Big Sky, MT is not feasible with local topographic and geologic constraining features, private landowner permission denial, United States Forest Service (USFS) requirements, and Montana Department of Transportation (MDT) right-of-way restrictions. Providing 10 feet of separation threatens MDT approval of the project, and the project will potentially cease if a deviation is not granted. If this project is stopped, the recently deemed impaired mainstem of the Gallatin River will continue to be impacted by septic tank and Level 2 effluents in the Canyon, making improvement of Gallatin River water quality more difficult. This project will greatly improve the treatment of wastewater generated in the Canyon Area to Class A-1 standards and dispose of effluent in a manner that better protects public and environmental health. Furthermore, 10 feet of horizontal separation where applicable is not advised as more bends, fittings, and road crossings increases the risk of a break versus relatively straight runs of fused pipe.

PROPOSED DESIGN:

Approximately 5,000 linear feet of forcemain and the reuse main between the primary lift station (LS1) and the secondary lift station (LS2) will have a minimum horizontal separation of 3 ft, and vertical separation of a minimum 1-inch from the bottom of the reuse main to the top of forcemain, as shown in the standard detail below. 3 ft was determined as it is the maximum horizontal separation for single trench construction and is a nationally accepted horizontal separation for non-potable water pipes to sewer pipes. The vertical separation is an additional protective measure to substitute for horizontal separation. Dual trench construction is not feasible at certain locations on the alignment and greatly increases the risk of a trench collapsing with the steep mountain slope on one side of the trench. **Figure 1** shows the standard detail planned for this project.

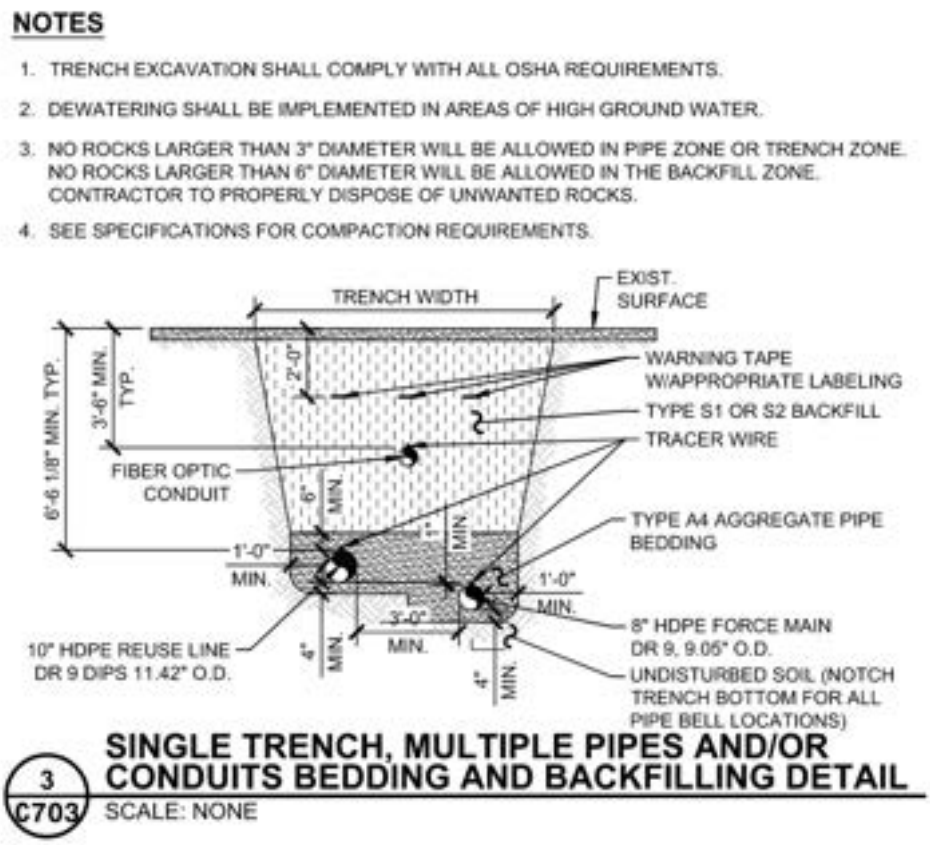


Figure 1: Trench Standard Detail

The project team anticipates that 10-ft of horizontal separation will be feasible from the secondary lift station the WRRF.

JUSTIFICAITON:

This deviation is needed for physical as well as regulatory and private landowner approval restrictions within the project area; not to reduce construction costs.

Construction conditions for the alignment of the forcemain and reuse pipeline parallel to Highway 64 (Hwy 64) are complex given the narrow corridor bound by a steep mountain slope on the north and the West Fork of the Gallatin River on the south side of the highway, shown in **Figure 2**. The property owner of parcel S32, T06 S, R04 E, C.O.S. 2333, PARCEL B, ACRES 167.65, has formally denied the installation of pipelines on this property. This limits the pipeline alignment to Montana Department of Transportation (MDT) right of way on United State Forrest Service (USFS) property immediately adjacent to Hwy 64.

Figure 2: Guard Rail Section

USFS has indicated that they would prefer that no infrastructure be installed on the south side of HWY 64 near the West Fork of the Gallatin River as it would impact the riparian zone within the area as shown in **Figure 3**.

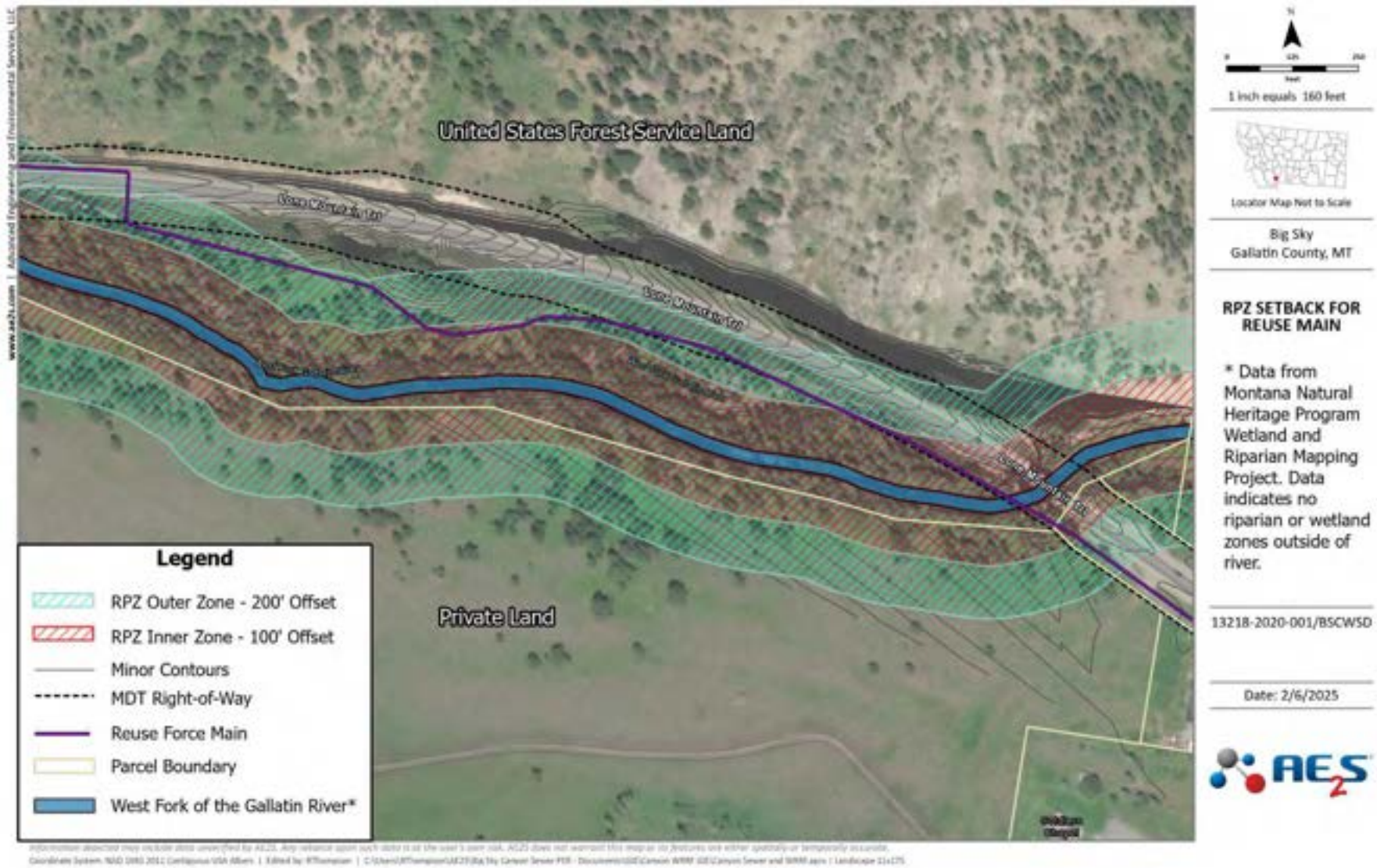


Figure 3. Riparian Zone (RPZ) Setbacks

MDT has further restricted pipeline installation by requiring that both lanes of traffic remain open or operational at all times. MDT has also indicated that they would not approve plans that incorporate unnecessary road crossings. Road crossings have the potential to damage the structural integrity of the road and MDT has advised the project team to minimize road crossings.

During recent meetings with MDT, concerns were raised regarding the proposed alignment within the MDT right-of-way, along the north side of Highway 64 between the primary lift station and the secondary lift station. MDT expressed significant concerns about potential geotechnical disturbances along the talus slope of Highway 64. To address these concerns, MDT has requested a comprehensive geotechnical report for this area.

The area in question is situated near a talus slope, which is inherently unstable and susceptible to erosion or sloughing if disturbed. MDT has specifically noted the importance of preserving the integrity of the slope to avoid triggering potential landslides or other geotechnical hazards. Any significant excavation or multiple trenching activities in this area could exacerbate the instability of the slope, increasing the risk of damage to both the highway infrastructure and the surrounding environment.

Therefore, MDT's preference for a single trench approach aligns with their goal of minimizing earthwork and ensuring slope stability. By limiting excavation to the necessary footprint and reducing the vertical depth of digging, the project will mitigate the risk of destabilizing the talus slope, preserving the natural terrain, and minimizing long-term maintenance concerns for both the pipeline and the highway. The following steps have been taken during pipeline preliminary design to safeguard against pipe leakage and potential contamination of the reuse pipeline.

- The reuse pipeline will be 10-inch, fused, high density polyethylene (HDPE) DR 9, previously DR 13.5, rated and tested for 250 psi (operating pressure 43 PSI to 83 PSI); the wastewater forcemain will be 8-inch, fused, HDPE DR 9 rated and tested for 250 psi (operating pressure 48 psi to 80 psi). Both pipe thickness and pressure rating criteria exceed DEQ 2 38.31 (a) for slip-on mechanical joint pipes complying with public water supply design standards (DEQ 1) and be pressure tested to minimum 150 psi to assure watertightness.
- As an update to previous draft deviation requests, the reuse pipeline thickness has been increased, the horizontal separation between pipes has increased from 2 feet to 3 feet, and a minimum of 1” vertical separation between the bottom of the reuse pipeline and top of forcemain is required. 3 feet is the maximum separation distance to install both pipelines in a single trench. It is well documented that installing infrastructure in previously disturbed trenches has a higher chance of collapse. Keeping the pipes in the same trench increases safety of the crews installing the pipes and maintaining them in the future.
- Constructing both pipelines of fused (jointless) HDPE, thicker than required by fluid pressure, and minimizing fittings to the extent possible is one of the most effective leakage control measures that can be taken with this project.
- Requiring a 1” minimum vertical separation from the bottom of reuse line to the top of forcemain adds an additional protective barrier and minimizes vertical excavation.
- There are no service connections to the sewage force main or reuse main in the entirety of the pipe run between the primary lift station and Big Sky WRRF where a horizontal separation is a minimum of three feet.

- Pipeline leaks predominantly occur at joints and fittings rather than along continuous sections of pipe. This is especially true for pipelines having mechanical joints. In contrast, fused High-Density Polyethylene (HDPE) pipes, which employ fusion to create continuous, joint-free systems, exhibit significantly lower leakage rates. Separating pipelines, when possible, with variable separation will add fittings and/or fused bends, increasing the likelihood of leaks, as well as creating operational complexity regarding pipeline locating for maintenance and repairs on the shoulder of Hwy 64. The entire goal is to minimize joints and fittings on the project, not create more, as they are the primary source of leaks and breaks in pipelines.
- Construction constraints, such as the narrow alignment created by the steep mountain toe slope on the north side of Hwy 64 and the proximity of the West Fork of the Gallatin River on the south side of Hwy 64, and keeping two traffic lanes open at all times (Hwy 64 is the sole entrance and egress for the public for Big Sky), make construction of an 18-inch vertical shelf and/or providing a 10-foot horizontal separation unsafe for construction and O&M activities. A vertical separation will drive the trench depth to 10 feet and increase construction and O&M complexity.
- All pipe connections for pipe spools, fittings, valves, and appurtenances will be fused. Fittings will be reduced by bending the piping equal to or less than manufacturer recommended bending radius standards, thereby reducing the number of fittings needed along the pipeline alignment.
- The BSCWSD District will monitor e. coli in the storage ponds and reuse main. A port for sodium hypochlorite injection will be installed near the beginning of the reuse pipeline. If contamination is detected, the pipeline will be taken out of service and the source of the detection will be investigated. This chlorination injection point can be used to provide additional public health protection when deemed necessary. If disinfection does not bring water back into compliance, operators will have the capability to stop irrigation, drain the reuse line, and clean the entirety of the reuse main and then bring it back into service.
- The GCCWSD MGWPCS discharge permit requires a sampling/monitoring plan. It has been confirmed with DEQ that for a system with multiple outfalls, a single/centralized point to collect effluent samples can be used prior to disposal. The effluent sampling point will be in a manhole or vault structure near the intersection of Hwy 191/64.
    - If the effluent sampling detects the presence of E. Coli or other pathogen or contaminant of concern, one or more of the isolation valves on the pipeline will be closed while operators investigate the source of contamination. There will be several pressure gauges on the pipeline that can be used to locate the general proximity of a leak should one develop. The entire pipeline will always be under static pressure, so eventually the pressure within the line will stabilize at the elevation of the leak.
- All new buried pipe within the public domain, including service lines, valves, and other appurtenances shall be colored purple – Pantone 512 or equivalent. Clearly labeled tracer location tape will be installed 2-ft above pipe with white or black text on purple field that reads “Caution: Treated Wastewater – Do Not Drink”.
- Valve box covers shall be non-interchangeable shapes with potable water covers and will have the inscription “Reclaimed Water” or “Treated Wastewater.” Valve boxes shall meet AWWA standards. All above ground facilities shall be consistently color-coded purple and marked to differentiate treated effluent facilities from potable water facilities.

- In order to detect leaks within the reuse main, pressure indicating transmitters (PIT) will be installed at the nearest reuse manhole from lift stations 1 and 2. The PIT's will alarm operators when pressures drop below an alarm setpoint. Operator will then have the ability to:
    - Completely shut off the reuse main at all times of operation
    - Manually check other reuse manhole pressure gauges to identify the length of pipe with the leak.
    - Identify and fix the leak
- All distribution pipes and sprinklers will have the capability to be completely drained. Main distribution headers will have flow measurement devices and pressure gages. All land applied flow will be measured at each separate property of use and totalized.
- In order for contamination to occur, negative pressure would have to be present in the reuse main with an opening at the same location as a leak in the wastewater force main pipe. As stated previously, this pipe will be under constant static pressure from elevation head. In addition, combination air vacuum relief valves (AVVs) on the pipeline will prevent a vacuum from occurring even when the pipe is being drained.
    - The operation of a potable water main cannot be compared to the operation of this reuse pipeline, as potable water mains have variable flows from changing demands and fire flows, and therefore at times draw a vacuum and can become contaminated. In contrast, the reuse pipeline will always be under pressure unless it is being taken out of service, and AAV's will prevent a vacuum in these events.
- Most states guidelines for horizontal separation are based on separation between potable water and raw sewage. The deviation request for this project is based on the separation of non-potable reclaimed wastewater and raw sewage. The reclaimed wastewater will be used for irrigation or groundwater disposal only and not for potable reuse. Therefore, design standards of potable water and sanitary sewer water horizontal separation are not applicable.
- This project will improve the health of the Gallatin River in addition to removing continued pollution from raw septage and replacement of minimally treated septage with Class A-1 reclaimed wastewater. Much higher quality reclaimed water than the existing wastewater will be returned to supplement flows in the Gallatin River and will improve the river's health.
- The project reduces the public's risk of human contact with raw sewage. The many septics and level 2 systems in operation in the Canyon present a higher public health risk than having two fused HDPE pipelines within three feet of one another. The higher quality reclaimed water is safer for human contact that the existing water quality of the impaired river that is popular for recreation where human contact is actively occurring.
- BSCWSD provided feedback on the design and acknowledges the potential risks associated with contamination. BSCWSD operators have the capability to address the additional operations and maintenance needed to own and operate the new system.

Table 1 shows a risk comparison between the minimum design requirements from DEQ Circular 2 when less than 10 feet of horizontal separation between potable water and sewer is possible and the proposed design for this project.

Table 1: Design Comparison

Design and Public Health Risk Comparison				
Criteria/Risk	**MDEQ minimum design requirement for Potable water relation to sewer pipe**	**Comparative Level of Risk Mitigation**	**Design of non-potable water relation to sewer pipe**	**Comparative Level of Risk Mitigation**
Horizontal Separation	More than 3 ft and up to 10 ft where possible, minimum 3 ft where absolutely needed	+	Minimum 3 ft	-
Number of Bends and Fittings	Increased number of bends and fittings to fused HDPE to obtain the maximum horizontal distance possible where possible after allowing less than 10 ft separation	-	Reduced number of bends and fittings with straight runs of piping	+
Construction and Operations & Maintenance (O&M) Complexity	Installing the pipelines with variable separation will require multiple trenches and unsafe work conditions for both construction workers and District staff	-	Installing piping at uniform separation will ease the burden of finding pipelines for repairs. A maximum separation of 3 ft is required for a single trench installation based on the size of typical trench boxes.	+
Pipeline and Joint Type	Slip on or mechanical joint	-	Fused, thicker walled DR 9 HDPE rated for 250 psi has a much lower risk of leaks than jointed pipe.	+
Minimum Pressure Rating	150 PSI	-	250 PSI	+
Vertical Separation	18-inches	+	Minimum of 1-inch	+
Air Vacuum Release Valves	Installed at high points	+	Installed at high points	+
Operations	Potable water has no shut off capability without impact to	-	Immediate shut off capability for extended durations	+

Design and Public Health Risk Comparison				
Criteria/Risk	**MDEQ minimum design requirement for Potable water relation to sewer pipe**	**Comparative Level of Risk Mitigation**	**Design of non-potable water relation to sewer pipe**	**Comparative Level of Risk Mitigation**
	potable water distribution		will not impact customers	
Possibility of negative pressures	High due to the potential for vacuum due to fluctuating flow	-	Nonexistent due to AVV valves and no fluctuation in flow	+
Public Awareness	No reference for signage on potable water relation to sewage	-	Applicable signage marking non-potable water is not safe for human contact.	+
No. of Instances of More Risk Mitigation (No. of +'s)	**3**		**9**	

The conclusion of the analysis is that there will be a higher risk of contamination with meeting minimum requirements of DEQ 2 and maintaining the maximum amount of separation where possible. It is important to note that DEQ 2 and DEQ1 requirements do not reduce the risk of contamination to zero between potable and wastewater systems and the risk of a person being contaminated by this non-potable reuse main is less than the risk of typically found in a municipal water system.

HUMAN AND ENVIRONMENTAL HEALTH CONSIDERATIONS:

There are three major human and environmental health benefits of the completion of this project:

1. improvement of water quality entering the Gallatin River Water Shed,
2. the decreased risk of human contact with minimally treated sewage, and
3. the decreased risk of human consumption of drinking water wells that are downgradient of septic systems and have elevated levels of Nitrate.

The Gallatin Canyon County Water and Sewer District (GCCWSD) rely on aging septic systems for treatment and disposal of the wastewater generated within the district. The middle segment of the Gallatin River, Yellowstone National Park Boundary to Spanish Creek (MT41H001_021) has been declared by DEQ as impaired for aquatic life and recreational use support by excess algal growth. EPA approved DEQ's decision.

Nitrogen load modeling from Canyon Area septics and Level 2 drain fields to this impaired reach of the River was completed as part of the 2018 Canyon Area Feasibility Study and the 2021 Preliminary Engineering Report (PER) developed by WGM group and AE2S. This work shows that the septic and Level 2 systems in the area are the primary contributing nutrient source to the River.

Without the completion of this project, the ongoing degradation of the Gallatin River will persist, further compromising its water quality and ecosystem. Completing the project will take a proactive approach to controlling the contaminants entering the river.

Many citizens living within the GCCWSD rely on residential wells as their drinking water source. The wells within the project area are generally shallow and draw from the same aquifer that the septic and Level 2 systems discharge into. Montana Bureau of Mines and Geology (MBMG) Canyon Area monitoring well was installed for their modeling. This well had an average of 8.43 mg/L of nitrate in 2020 and has reached levels as high as 28.8 mg/L. The aging septic systems within the Canyon Area are a human health risk and will continue to impact the Gallatin Canyon Community without the completion of a sewer project.

NATIONAL STANDARDS:

The following list outlines the national scale of reduction for horizontal separation between non-potable reuse water pipelines and sewer pipelines:

- Section 9.2.B in the State of Georgia's *Guidelines for Water Reclamation and Urban Water Reuse* state that "A minimum horizontal separation of three feet (outside of pipe to outside of pipe) shall be maintained between reclaimed water lines and either potable water mains or sewage collection lines." A vertical separation is not required.
- Section 730.02 of the *City of Burnet, TX Technical Construction Standard Specifications,* states that "The horizontal separation distance shall be three feet (outside to outside) with the reclaimed water line at the level of or above the sewer line. Reclaimed water lines, which parallel sewer lines may be placed in the same benched trench provided the three feet separation is provided."
- Section III.C. – Table 4 of the City of *Phoenix Design Standards Manual for Water and Wastewater Systems* shows that a 3-feet minimum, outside of pipe to outside of pipe, separation is required.
- Section 5.6.1 of American Water Works Association California/Neveda Section *Guidelines for the Distribution of Non-Potable Water* states that if 10 feet of horizontal separation is not possible, a minimum of 4 feet should be maintained. A 1-foot vertical separation is required **if possible.**
- Section 2. B of the *Florida Administrative Code 62-604.400- Design/Performance Considerations* states that F.A.C Sewers and Force mains shall be laid at least three feet (outside to outside) horizontal form an existing or proposed reclaimed water line permitted under Part II or Part V of Chapter 62-610, F.A.C."
- Section R317-3-11.8 A. 1. A. of the Utah Office of Administrative Rule states that a vertical separation is required at crossings and the reuse water must be above the sewer line. If a sanitary sewer main is located below a reuse main, 3 ft of horizontal separation is acceptable.

CONCLUSION:

Appendix B Section B.5 of MDEQ Circular 2: Design for Standard for Public Sewage Systems states, **"**Note that circular DEQ 1 must be used with the interpretation that reclaimed wastewater is to be considered sewage for the purpose of complying with Section 8.8 (Separation of Water Mains, Sanitary Sewers, and Storm Sewers). Likewise, in DEQ 2, Section 38.3 (Relation to Water Works) adequate separation must be

maintained between pipes carrying sewage and pipes carrying reclaimed wastewater. Therefore, the required vertical and horizontal separation distances must be met."

These two statements are conflicting, in that one interprets reclaimed wastewater as equivalent to sewage, and another acknowledges that they are different. Reclaimed wastewater regulations overall need further development in Montana as more reuse projects develop to address water scarcity in the western US and are only being brought up here as it informs the challenge engineers face when engineering reuse systems in Montana.

States employing more reuse/reclaimed water infrastructure than Montana (i.e., Georgia, Arizona, Texas, Utah, and California where water scarcity has encouraged more reuse) have revisited the 10-ft separation in 2014 ten state standards, and changed their regulations when the pipeline fluids are reuse effluent and raw wastewater, so that they do not unnecessarily inhibit the construction of reuse infrastructure with what are, at times, unachievable pipeline alignment widths.

Granting this deviation request to install the reuse water main with three feet of separation from a force main has less risk of human contamination than what is experienced in most DEQ compliant water and sewer systems.

Attachment A

FORCE MAIN FITTINGS AND STRUCTURES

STRUCTURE	STA./OFFSET	NORTHING	EASTING	GRND ELEV.	PIPES IN	PIPES OUT
8" CPL	9+24.49 0.00'	375401.0106	1516740.4509	5995.88		8" HDPE INV W = 5994.17
8" 22.5° BEND	9+75.00 0.00'	375410.2225	1516690.7865	5995.93	8" HDPE INV E = 5994.22	8" HDPE INV W = 5994.22
8" 45° BEND	10+82.60 0.00'	375387.8650	1516585.5306	6002.26	8" HDPE INV E = 5994.32	8" HDPE INV SW = 5994.32
8" 45° BEND AND VERT. DEFLECTION	11+37.23 0.00'	375340.9196	1516557.5997	6001.95	8" HDPE INV NE = 5994.38	8" HDPE INV W = 5994.38
8" 45° BEND AND VERT. DEFLECTION	11+51.42 0.00'	375338.0943	1516543.6947	5997.25	8" HDPE INV E = 5995.54	8" HDPE INV NW = 5995.54
VERT. DEFLECTION	12+50.00 0.00'	375380.8105	1516454.8495	6004.21	8" HDPE INV SE = 5996.97	8" HDPE INV NW = 5996.97
72" Ø CARV MH, SEE DETAIL SD/1/C701	14+14.26 0.00'	375451.9844	1516306.8151	6005.83	8" HDPE INV SE = 5998.45	8" HDPE INV NW = 5998.45
8" 11.25° BEND (VERT.)	14+24.26 0.00'	375456.3176	1516297.8027	6000.40	8" HDPE INV SE = 5998.54	8" HDPE INV NW = 5998.54
DEFLECTION	14+45.20 0.00'	375465.3934	1516278.9259	6004.10	8" HDPE INV SE = 5994.56	8" HDPE INV NW = 5994.56
DEFLECTION	14+61.53 0.00'	375472.4706	1516264.2061	6002.72	8" HDPE INV SE = 5991.85	8" HDPE INV NW = 5991.85
DEFLECTION	14+77.87 0.00'	375479.5478	1516249.4862	6000.68	8" HDPE INV SE = 5989.94	8" HDPE INV NW = 5989.94
DEFLECTION	14+94.20 0.00'	375486.6250	1516234.7664	5999.06	8" HDPE INV SE = 5988.79	8" HDPE INV NW = 5988.79
DEFLECTION	15+10.53 0.00'	375493.7022	1516220.0466	5996.89	8" HDPE INV SE = 5988.41	8" HDPE INV NW = 5988.41
DEFLECTION	15+33.96 0.00'	375503.8542	1516198.9314	5997.24	8" HDPE INV SE = 5988.41	8" HDPE INV NW = 5988.41
DEFLECTION	15+51.78 0.00'	375511.5753	1516182.8724	5998.97	8" HDPE INV SE = 5988.86	8" HDPE INV NW = 5988.86
DEFLECTION	15+69.60 0.00'	375519.2963	1516166.8135	6000.36	8" HDPE INV SE = 5990.23	8" HDPE INV NW = 5990.23
DEFLECTION	15+87.42 0.00'	375527.0173	1516150.7546	6003.53	8" HDPE INV SE = 5992.51	8" HDPE INV NW = 5992.51
DEFLECTION	16+05.24 0.00'	375534.7383	1516134.6956	6005.24	8" HDPE INV SE = 5995.74	8" HDPE INV NW = 5995.74
8" 22.5° BEND	16+18.00 0.00'	375540.2693	1516123.1918	6005.60	8" HDPE INV SE = 5998.40	8" HDPE INV NW = 5998.40
72" Ø CARV MH, SEE DETAIL SD/1/C701	16+25.00 0.00'	375543.3025	1516116.8831	6005.89	8" HDPE INV SE = 5998.46	8" HDPE INV NW = 5998.46
8" 22.5° BEND	16+31.45 0.00'	375546.0994	1516111.0657	6006.17	8" HDPE INV SE = 5998.52	8" HDPE INV W = 5998.52
VERT. DEFLECTION	16+51.68 0.00'	375548.7087	1516091.0071	6007.34	8" HDPE INV E = 5998.71	8" HDPE INV W = 5998.71
8" 11.25° BEND AND VERT. DEFLECTION	17+29.33 0.00'	375558.7250	1516014.0078	6007.09	8" HDPE INV E = 6003.32	8" HDPE INV W = 6003.32
VERT. DEFLECTION	20+78.20 0.00'	375670.3567	1515683.4768	6016.83	8" HDPE INV E = 6006.81	8" HDPE INV W = 6006.81
8" 11.25° BEND AND VERT. DEFLECTION	23+13.05 0.00'	375745.5026	1515460.9768	6021.35	8" HDPE INV E = 6013.25	8" HDPE INV W = 6013.25
BEGIN CURVE AND VERT. DEFLECTION	26+94.66 0.00'	375794.7289	1515082.5547	6031.87	8" HDPE INV E = 6024.06	8" HDPE INV W = 6024.06
VERT. DEFLECTION	31+12.47 0.00'	375823.1396	1514665.9779	6039.55	8" HDPE INV E = 6031.57	8" HDPE INV W = 6031.57
END CURVE	34+16.14 0.00'	375811.6997	1514362.6241	6042.91	8" HDPE INV E = 6034.91	8" HDPE INV W = 6034.91
0.46° DEFLECTION AND VERT. DEFLECTION	34+43.33 0.00'	375809.4665	1514335.5240	6037.34	8" HDPE INV E = 6035.21	8" HDPE INV W = 6035.21
BEGIN CURVE	38+88.94 0.00'	375769.2865	1513891.7256	6044.91	8" HDPE INV E = 6036.99	8" HDPE INV W = 6036.99
VERT. DEFLECTION	41+01.10 0.00'	375779.3335	1513680.4751	6045.84	8" HDPE INV E = 6037.84	8" HDPE INV W = 6037.84
END CURVE	43+45.67 0.00'	375861.5166	1513451.2175	6042.66	8" HDPE INV SE = 6040.29	8" HDPE INV NW = 6040.29
VERT. DEFLECTION	45+76.45 0.00'	375972.7807	1513249.0286	6051.16	8" HDPE INV SE = 6042.60	8" HDPE INV NW = 6042.60
END CURVE AND VERT. DEFLECTION	49+43.41 0.00'	376149.6985	1512927.5339	6060.50	8" HDPE INV SE = 6052.50	8" HDPE INV NW = 6052.50
VERT. DEFLECTION	52+02.12 0.00'	376259.4307	1512693.4470	6066.18	8" HDPE INV E = 6058.19	8" HDPE INV W = 6058.19
VERT. DEFLECTION	53+05.85 0.00'	376294.7680	1512595.9381	6067.91	8" HDPE INV E = 6059.53	8" HDPE INV W = 6059.53
END CURVE 8" 45° BEND	53+19.95 0.00'	376299.1784	1512582.5490	6061.89	8" HDPE INV E = 6059.57	8" HDPE INV NW = 6059.57
8" 45° BEND	53+27.01 0.00'	376305.5625	1512579.5155	6068.05	8" HDPE INV SE = 6060.26	8" HDPE INV N = 6060.26
8" 22.5° BEND (VERT.)	53+69.66 0.00'R	376345.7411	1512593.8075	6086.88	8" HDPE INV S = 6078.47	8" HDPE INV N = 6078.47
8" CPL	53+84.97 0.00'	376360.1687	1512598.9350	6080.18	8" HDPE INV S = 6078.47	
8" 45° BEND	54+87.80 0.00'	376410.5191	1512535.4706	6077.88		8" HDPE INV SW = 6076.17
8" 45° BEND	55+09.20 0.00'	376401.3348	1512516.1436	6081.47	8" HDPE INV NE = 6074.24	8" HDPE INV S = 6074.24
8" 45° BEND	55+68.08 0.00'	376345.8620	1512496.4093	6066.19	8" HDPE INV N = 6064.31	8" HDPE INV SW = 6064.31
8" 45° BEND	55+81.83 0.00'	376339.9620	1512483.9937	6063.84	8" HDPE INV NE = 6062.13	8" HDPE INV W = 6062.13
VERT. DEFLECTION	56+14.43 0.00'	376348.4635	1512452.5226	6069.18	8" HDPE INV E = 6061.77	8" HDPE INV W = 6061.77
END CURVE	59+33.37 0.00'	376400.1894	1512138.2467	6070.87	8" HDPE INV E = 6062.42	8" HDPE INV W = 6062.42
72" Ø CARV MH, SEE DETAIL SD/1/C701	62+36.91 0.00'	376423.7741	1511835.6271	6070.95	8" HDPE INV E = 6063.03	8" HDPE INV W = 6063.03
8" 11.25° BEND (VERT.)	62+46.91 0.00'	376424.5511	1511825.6573	6071.01	8" HDPE INV E = 6063.05	8" HDPE INV W = 6063.05
DEFLECTION	62+87.06 0.00'	376427.6706	1511785.6307	6071.21	8" HDPE INV E = 6055.15	8" HDPE INV W = 6055.15
DEFLECTION	62+92.19 0.00'	376428.0688	1511780.5210	6071.17	8" HDPE INV E = 6054.27	8" HDPE INV W = 6054.27
DEFLECTION	62+97.31 0.00'	376428.4670	1511775.4114	6070.68	8" HDPE INV E = 6053.67	8" HDPE INV W = 6053.67
DEFLECTION	63+02.44 0.00'	376428.8652	1511770.3018	6070.64	8" HDPE INV E = 6053.34	8" HDPE INV W = 6053.34
DEFLECTION	63+07.56 0.00'	376429.2634	1511765.1922	6070.45	8" HDPE INV E = 6053.27	8" HDPE INV W = 6053.27
DEFLECTION	63+12.69 0.00'	376429.6617	1511760.0826	6070.44	8" HDPE INV E = 6053.46	8" HDPE INV W = 6053.46
DEFLECTION	63+17.81 0.00'	376430.0599	1511754.9730	6070.60	8" HDPE INV E = 6053.91	8" HDPE INV W = 6053.91

FORCE MAIN FITTINGS AND STRUCTURES

STRUCTURE	STA./OFFSET	NORTHING	EASTING	GRND ELEV.	PIPES IN	PIPES OUT
DEFLECTION	63+22.94 0.00'	376430.4581	1511749.8633	6070.76	8" HDPE INV E = 6054.65	8" HDPE INV W = 6054.65
DEFLECTION	63+28.06 0.00'	376430.8563	1511744.7537	6070.90	8" HDPE INV E = 6055.64	8" HDPE INV W = 6055.64
8" 11.25° BEND (VERT.)	63+69.43 0.00'	376434.0704	1511703.5127	6072.16	8" HDPE INV E = 6064.82	8" HDPE INV W = 6064.82
72" Ø CARV MH, SEE DETAIL SD/1/C701	63+79.43 0.00'	376434.8474	1511693.5430	6072.28	8" HDPE INV E = 6065.05	8" HDPE INV W = 6065.05
VERT. DEFLECTION	64+16.95 0.00'	376437.7631	1511656.1314	6073.12	8" HDPE INV E = 6065.91	8" HDPE INV W = 6065.91
8" 22.5° BEND	66+14.16 0.00'	376453.0864	1511459.5158	6080.35	8" HDPE INV E = 6072.22	8" HDPE INV NW = 6072.22
8" 11.25° BEND (VERT.)	66+31.10 0.00'	376461.5562	1511444.8471	6088.34	8" HDPE INV SE = 6072.77	8" HDPE INV NW = 6072.77
8" 11.25° BEND (VERT.)	66+91.10 0.00'	376491.5585	1511392.8869	6094.12	8" HDPE INV SE = 6086.63	8" HDPE INV NW = 6086.63
8" 22.5° BEND	67+12.54 0.00'	376502.2788	1511374.3209	6095.94	8" HDPE INV SE = 6087.14	8" HDPE INV W = 6087.14
3.3° DEFLECTION VERT. DEFLECTION	69+58.61 0.00'	376534.4077	1511130.3622	6103.95	8" HDPE INV E = 6093.05	8" HDPE INV W = 6093.06
4.66° DE=FLECTION VERT. DEFLECTION	72+65.01 0.00'	376556.6934	1510824.7729	6109.64	8" HDPE INV E = 6102.24	8" HDPE INV W = 6102.24
VERT. DEFLECTION	75+51.10 0.00'	376554.2448	1510538.6882	6114.88	8" HDPE INV E = 6107.10	8" HDPE INV W = 6107.10
VERT. DEFLECTION	76+34.22 0.00'	376553.5335	1510455.5734	6117.64	8" HDPE INV E = 6109.18	8" HDPE INV W = 6109.18
VERT. DEFLECTION	78+00.76 0.00'	376564.3247	1510289.3847	6124.49	8" HDPE INV E = 6117.01	8" HDPE INV W = 6117.01
VERT. DEFLECTION	79+01.10 0.00'	376567.2929	1510189.0901	6128.71	8" HDPE INV E = 6120.22	8" HDPE INV W = 6120.22
VERT. DEFLECTION	81+51.10 0.00'	376559.8005	1509939.2777	6140.34	8" HDPE INV E = 6131.96	8" HDPE INV W = 6131.96
VERT. DEFLECTION	84+01.10 0.00'	376531.1229	1509691.0037	6147.18	8" HDPE INV E = 6138.21	8" HDPE INV W = 6138.21
VERT. DEFLECTION	85+51.10 0.00'	376503.8273	1509543.5246	6147.54	8" HDPE INV E = 6139.26	8" HDPE INV W = 6139.26
72" Ø CARV MH, SEE DETAIL SD/1/C701	87+01.10 0.00'	376469.0478	1509397.6291	6151.05	8" HDPE INV E = 6143.76	8" HDPE INV W = 6143.76
8" 45° BEND	87+37.29 0.00'	376459.5472	1509362.7146	6147.18	8" HDPE INV E = 6143.76	8" HDPE INV NW = 6143.76
8" 45° BEND	87+58.67 0.00'	376470.0287	1509344.0717	6155.06	8" HDPE INV SE = 6143.76	8" HDPE INV N = 6143.76
8" 45° BEND	89+48.70 0.00'	376649.2437	1509280.9034	6145.68	8" HDPE INV S = 6143.76	8" HDPE INV NW = 6143.76
8" 22.5° BEND	89+61.67 0.00'	376654.6957	1509269.1351	6151.32	8" HDPE INV SE = 6143.76	8" HDPE INV W = 6143.76
72" Ø CARV MH, SEE DETAIL SD/1/C701	90+71.94 0.00'	376659.2315	1509158.9505	6153.22	8" HDPE INV E = 6145.44	8" HDPE INV W = 6145.44
10" x 8" RED	90+84.93 0.00'	376659.7655	1509145.9771	6153.02	8" HDPE INV E = 6145.63	10" INV W = 6145.55
EX. 10" 11.25° BEND	91+71.41 0.00'	376658.7250	1509059.4989	6155.71	10" INV E = 6147.93	10" INV W = 6147.93
DEFLECTION	91+82.55 0.00'	376657.3326	1509048.4463	6156.18	10" INV E = 6148.23	10" INV W = 6148.23
EX. 10" 22.5° BEND	92+76.25 0.00'	376645.6210	1508955.4856	6159.05	10" INV E = 6149.71	10" INV W = 6149.71
EX. 10" 22.5° BEND	94+65.07 0.00'	376687.3695	1508771.3373	6160.71	10" INV E = 6152.23	10" INV NW = 6152.23
EX. DEFLECTION	96+63.61 0.00'	376795.2684	1508604.6795	6161.11	10" INV SE = 6152.23	10" INV NW = 6152.23
EX. DEFLECTION	98+01.12 0.00'	376870.0029	1508489.2466	6158.53	10" INV SE = 6147.45	10" INV NW = 6147.45
EX. 10" 45° BEND	98+36.14 0.00'	376889.0345	1508459.8508	6158.53	10" INV SE = 6146.23	10" INV N = 6146.23
EX. 10" 45° BEND	99+03.42 0.00'	376955.3284	1508448.3825	6154.81	10" INV S = 6146.23	10" INV NW = 6146.23
EX. 10" 11.25° BEND	99+41.96 0.00'	376977.5397	1508416.8789	6156.64	10" INV SE = 6149.23	10" INV NW = 6149.23
EX. 10" 22.5° BEND	99+69.61 0.00'	376988.7553	1508391.6115	6168.36	10" INV SE = 6151.00	10" INV W = 6151.00
DEFLECTION	100+26.07 0.00'	376990.1697	1508335.1703	6176.05	10" INV E = 6167.50	10" INV W = 6167.50
EX. 10" 45° BEND	100+69.83 0.00'	376991.2658	1508291.4253	6181.80	10" INV E = 6167.50	10" INV NW = 6167.50
CONNECT TO EX. 10" PLUG VALVE	100+74.12 0.00'	376994.3739	1508288.4692	6181.93	10" INV SE = 6167.50	10" INV NW = 6167.50
CORE DRILL AND CONNECT TO EX. DIVERSION STRUCTURE	100+79.75 0.00'	376998.4534	1508284.5891	6182.09	10" INV SE = 6167.50	

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC NOT FOR CONSTRUCTION PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

PROJECT TITLE:

BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:

FORCE MAIN POINTS

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: SW

SHEET NO: C001

REUSE LINE FITTINGS AND STRUCTURES

STRUCTURE	STA./OFFSET	NORTHING	EASTING	GRND ELEV.	PIPES IN	PIPES OUT
DEFLECTION	150+06.35 0.00'	376581.4254	1509122.9503	6153.25		14" INV S = 6146.50
14" x 10" RED	150+26.33 0.00'	376561.7893	1509126.6582	6153.17		10" INV S = 6146.67
EX. 14" CAP	150+26.33 0.00'	376561.7893	1509126.6582	6153.17	14" INV N = 6146.50	
10" 45° BEND	150+36.37 0.00'	376551.9325	1509128.5195	6153.17	10" INV N = 6146.63	10" INV SE = 6146.63
10" 45° BEND	150+50.90 0.00'	376544.7707	1509141.1622	6153.14	10" INV NW = 6145.75	10" INV E = 6145.75
10" 45° BEND	151+73.96 0.00'	376574.2792	1509260.6327	6152.28	10" INV W = 6144.89	10" INV SE = 6144.89
10" 45° BEND	152+02.24 0.00'	376559.6584	1509284.8450	6152.33	10" INV NW = 6144.78	10" INV S = 6144.78
10" 45° BEND	153+13.42 0.00'	376451.7207	1509311.5050	6154.43	10" INV N = 6144.34	10" INV SE = 6144.34
10" 45° BEND	153+37.16 0.00'	376439.4506	1509331.8245	6155.43	10" INV NW = 6144.24	10" INV E = 6144.24
BEGIN CURVE	153+72.98 0.00'	376449.0819	1509366.3232	6152.04	10" INV W = 6143.93	10" INV E = 6143.93
VERT. DEFLECTION	154+86.40 0.00'	376477.4533	1509476.1349	6150.54	10" INV W = 6142.96	10" INV E = 6142.96
VERT. DEFLECTION	159+36.40 0.00'	376547.4848	1509920.2020	6140.96	10" INV W = 6133.51	10" INV E = 6133.51
10" CAP	161+19.02 10.02' R	376546.2508	1510102.7499	6133.79	10" HDPE INV N = 6109.22	
10" GV	161+19.10 5.03' R	376551.2508	1510102.7397	6133.15	10" HDPE INV N = 6109.34	10" HDPE INV S = 6109.24
10" x 10" TEE	161+19.17 0.03' R	376556.2508	1510102.7294	6133.37	10" INV W = 6125.65	10" INV E = 6125.65 10" HDPE INV S = 6109.36
VERT. DEFLECTION	161+86.40 0.00'	376556.6364	1510169.9582	6129.19	10" INV W = 6121.51	10" INV E = 6121.51
VERT. DEFLECTION	163+04.71 0.00'	376553.5135	1510288.2131	6126.07	10" INV W = 6117.96	10" INV E = 6117.96
VERT. DEFLECTION	164+36.40 0.00' L	376544.9926	1510419.6328	6118.59	10" INV W = 6110.98	10" INV E = 6110.98
END CURVE	164+72.11 0.00'	376542.6765	1510455.2677	6117.58		10" INV E = 6109.83
VERT. DEFLECTION	165+56.40 0.00'	376543.3978	1510539.5545	6115.00	10" INV W = 6107.14	10" INV E = 6107.14
4.66° HORIZ DEFLECTION AND VERT DEFLECTION	168+41.28 0.00'	376545.8360	1510824.4241	6108.95	10" INV W = 6101.44	10" INV E = 6101.44
VERT. DEFLECTION	168+86.40 0.00'	376542.5542	1510869.4246	6107.97	10" INV W = 6100.54	10" INV E = 6100.54
VERT. DEFLECTION	170+86.40 0.00'	376528.0075	1511068.8949	6102.77	10" INV W = 6095.34	10" INV E = 6095.34
3.33° DEFLECTION	171+46.93 0.00'	376523.6054	1511129.2579	6102.15	10" INV W = 6093.76	10" INV E = 6093.76
10" 22.5° BEND	173+91.03 0.00'	376491.7323	1511371.2739	6095.39	10" INV W = 6087.42	10" INV SE = 6087.42
10" 11.25° BEND (VERT.)	173+96.40 0.00'	376489.0467	1511375.9251	6095.17	10" INV NW = 6087.28	10" INV SE = 6087.28
10" 11.25° BEND (VERT.)	174+62.74 0.00'	376455.8746	1511433.3748	6081.34	10" INV NW = 6072.35	10" INV SE = 6072.35
10" 22.5° BEND	174+89.65 0.00'	376442.4208	1511456.6751	6079.80	10" INV NW = 6071.65	10" INV E = 6071.65
VERT. DEFLECTION	175+95.33 0.00'	376434.2092	1511562.0406	6076.84	10" INV W = 6068.48	10" INV E = 6068.48
72" Ø CARV MH, SEE DETAIL SD/2/C701	177+15.33 0.00'	376424.8852	1511681.6779	6074.25	10" INV W = 6066.44	10" INV E = 6066.44
10" 11.25° BEND	177+28.85 0.00'	376423.8349	1511695.1555	6074.06	10" INV W = 6066.21	10" INV E = 6066.21
VERT. DEFLECTION	177+74.95 0.00'	376420.2526	1511741.1194	6072.45	10" INV W = 6056.38	10" INV E = 6056.38
VERT. DEFLECTION	177+81.77 0.00'	376419.7234	1511747.9104	6072.49	10" INV W = 6055.07	10" INV E = 6055.07
VERT. DEFLECTION	177+88.73 0.00'	376419.1824	1511754.8517	6072.78	10" INV W = 6054.13	10" INV E = 6054.13
VERT. DEFLECTION	177+95.69 0.00'	376418.6414	1511761.7930	6072.93	10" INV W = 6053.53	10" INV E = 6053.53
VERT. DEFLECTION	178+02.65 0.00'	376418.1005	1511768.7343	6072.86	10" INV W = 6053.28	10" INV E = 6053.28
VERT. DEFLECTION	178+09.61 0.00'	376417.5595	1511775.6757	6072.80	10" INV W = 6053.38	10" INV E = 6053.38
VERT. DEFLECTION	178+16.58 0.00'	376417.0185	1511782.6170	6072.74	10" INV W = 6053.83	10" INV E = 6053.83
VERT. DEFLECTION	178+23.54 0.00'	376416.4776	1511789.5583	6072.74	10" INV W = 6054.64	10" INV E = 6054.64
VERT. DEFLECTION	178+30.37 0.00'	376415.9467	1511796.3704	6072.66	10" INV W = 6055.76	10" INV E = 6055.76
10" 11.25° BEND	178+75.33 0.00'	376412.4533	1511841.1942	6072.27	10" INV W = 6064.60	10" INV E = 6064.60
72" Ø CARV MH, SEE DETAIL SD/2/C701	178+85.33 0.00'	376411.6763	1511851.1639	6072.18	10" INV W = 6064.57	10" INV E = 6064.57
BEGIN CURVE AND VERT. DEFLECTION	181+72.47 0.00'	376389.3657	1512137.4361	6071.33	10" INV W = 6063.71	10" HDPE INV E = 6063.71
VERT. DEFLECTION	182+75.33 0.00'	376379.2375	1512239.7786	6070.14	10" HDPE INV W = 6062.58	10" HDPE INV E = 6062.58
VERT. DEFLECTION	184+45.33 0.00'	376348.3495	1512406.8698	6069.82	10" HDPE INV W = 6061.90	10" INV E = 6061.90
VERT. DEFLECTION	184+95.33 0.00'	376335.9486	1512455.3055	6068.96	10" INV W = 6061.35	10" INV E = 6061.35
END CURVE AND VERT. DEFLECTION	185+29.68 0.00'	376326.5673	1512488.3455	6069.29	10" INV W = 6061.06	10" HDPE INV E = 6061.06
TRANSITION COUPLING	186+22.39 0.00'	376297.2500	1512576.3031	6068.39	10" HDPE INV W = 6060.45	10" INV E = 6060.45
BEGIN CURVE AND VERT DEFLECTION	186+41.81 -0.06' L	376291.1665	1512594.7378	6068.07	10" INV W = 6060.32	10" INV E = 6060.32
VERT. DEFLECTION	187+45.33 0.00'	376255.8424	1512692.0402	6066.43	10" INV W = 6058.98	10" INV E = 6058.98
END CURVE AND VERT. DEFLECTION	190+03.54 0.00'	376146.3218	1512925.6757	6060.86	10" INV NW = 6053.30	10" INV SE = 6053.30
VERT. DEFLECTION	193+70.50 0.00'	375969.4041	1513247.1704	6051.34	10" INV NW = 6043.39	10" INV SE = 6043.39
BEGIN CURVE	196+01.28 0.00'	375858.1399	1513449.3594	6048.59	10" INV NW = 6041.08	10" INV SE = 6041.08
VERT. DEFLECTION	198+45.33 0.00'	375775.8692	1513678.0482	6046.27	10" INV W = 6038.64	10" INV E = 6038.64
END CURVE	200+60.30 0.00'	375765.4481	1513892.0731	6045.31	10" INV W = 6037.78	10" INV E = 6037.78

REUSE LINE FITTINGS AND STRUCTURES

STRUCTURE	STA./OFFSET	NORTHING	EASTING	GRND ELEV.	PIPES IN	PIPES OUT
0.51° DEFLECTION AND VERT. DEFLECTION	205+05.90 0.00'	375805.6267	1514335.8560	6043.45	10" INV W = 6036.00	10" INV E = 6036.00
BEGIN CURVE	205+33.08 0.00'	375807.8586	1514362.9407	6037.57	10" INV W = 6035.69	10" HDPE INV E = 6035.69
VERT. DEFLECTION	208+36.40 0.00'	375819.2863	1514665.9516	6039.79	10" HDPE INV W = 6032.36	10" HDPE INV E = 6032.36
END CURVE AND VERT. DEFLECTION	212+53.74 0.00'	375790.9069	1515082.0575	6026.73	10" HDPE INV W = 6024.85	10" INV E = 6024.85
10" 11.25° BEND	216+34.97 0.00'	375741.7296	1515460.1032	6021.54	10" INV W = 6014.18	10" INV E = 6014.18
VERT. DEFLECTION	218+69.88 0.00'	375666.5610	1515682.6704	6017.13	10" INV W = 6007.60	10" INV E = 6007.60
10" 11.25° BEND	222+18.69 0.00'	375554.9520	1516013.1342	6011.52	10" INV W = 6004.11	10" INV E = 6004.11
10" 22.5° BEND	222+96.71 0.00'	375544.8868	1516090.5099	6007.65	10" INV W = 5999.51	10" INV SE = 5999.51
72" Ø CARV MH, SEE DETAIL SD/2/C701	223+26.40 0.00'	375532.0227	1516117.2659	6006.94	10" INV NW = 5999.21	10" INV SE = 5999.21
10" 11.25° BEND (VERT.)	223+36.40 0.00'	375527.6895	1516126.2784	6006.75	10" INV NW = 5999.11	10" INV SE = 5999.11
VERT. DEFLECTION	223+49.31 0.00'	375522.0970	1516137.9103	6006.51	10" INV NW = 5996.41	10" INV SE = 5996.41
VERT. DEFLECTION	223+67.21 0.00'	375514.3404	1516154.0432	6005.06	10" INV NW = 5993.15	10" INV SE = 5993.15
VERT. DEFLECTION	223+85.11 0.00'	375506.5838	1516170.1761	5999.02	10" INV NW = 5990.84	10" INV SE = 5990.84
VERT. DEFLECTION	224+03.01 0.00'	375498.8272	1516186.3090	5997.69	10" INV NW = 5989.47	10" INV SE = 5989.47
VERT. DEFLECTION	224+20.91 0.00'	375491.0706	1516202.4420	5996.58	10" INV NW = 5989.01	10" INV SE = 5989.01
VERT. DEFLECTION	224+31.98 0.00'	375486.2754	1516212.4154	5996.79	10" INV NW = 5989.01	10" INV SE = 5989.01
VERT. DEFLECTION	224+48.48 0.00'	375479.1263	1516227.2847	6000.14	10" INV NW = 5989.40	10" INV SE = 5989.40
VERT. DEFLECTION	224+64.98 0.00'	375471.9773	1516242.1541	6001.68	10" INV NW = 5990.57	10" INV SE = 5990.57
VERT. DEFLECTION	224+81.47 0.00'	375464.8282	1516257.0234	6003.70	10" INV NW = 5992.53	10" INV SE = 5992.53
VERT. DEFLECTION	224+97.97 0.00'	375457.6791	1516271.8927	6005.22	10" INV NW = 5995.29	10" INV SE = 5995.29
10" 11.25° BEND (VERT.)	225+06.40 0.00'	375454.0265	1516279.4898	6006.33	10" INV NW = 5996.91	10" INV SE = 5996.91
72" Ø CARV MH, SEE DETAIL SD/2/C701	225+16.40 0.00'	375449.6934	1516288.5023	6005.98	10" INV NW = 5996.87	10" INV SE = 5996.87
VERT. DEFLECTION	227+36.40 0.00'	375354.3647	1516486.7759	6003.70	10" INV NW = 5995.99	10" INV SE = 5995.99
SEE WGM SHEET NO. XXXX FOR CONTINUATION	228+86.40 0.00'	375289.3679	1516621.9625	6001.54	10" INV NW = 5994.04	

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC — NOT FOR CONSTRUCTION — PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

PROJECT TITLE:

BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:

REUSE LINE POINTS

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

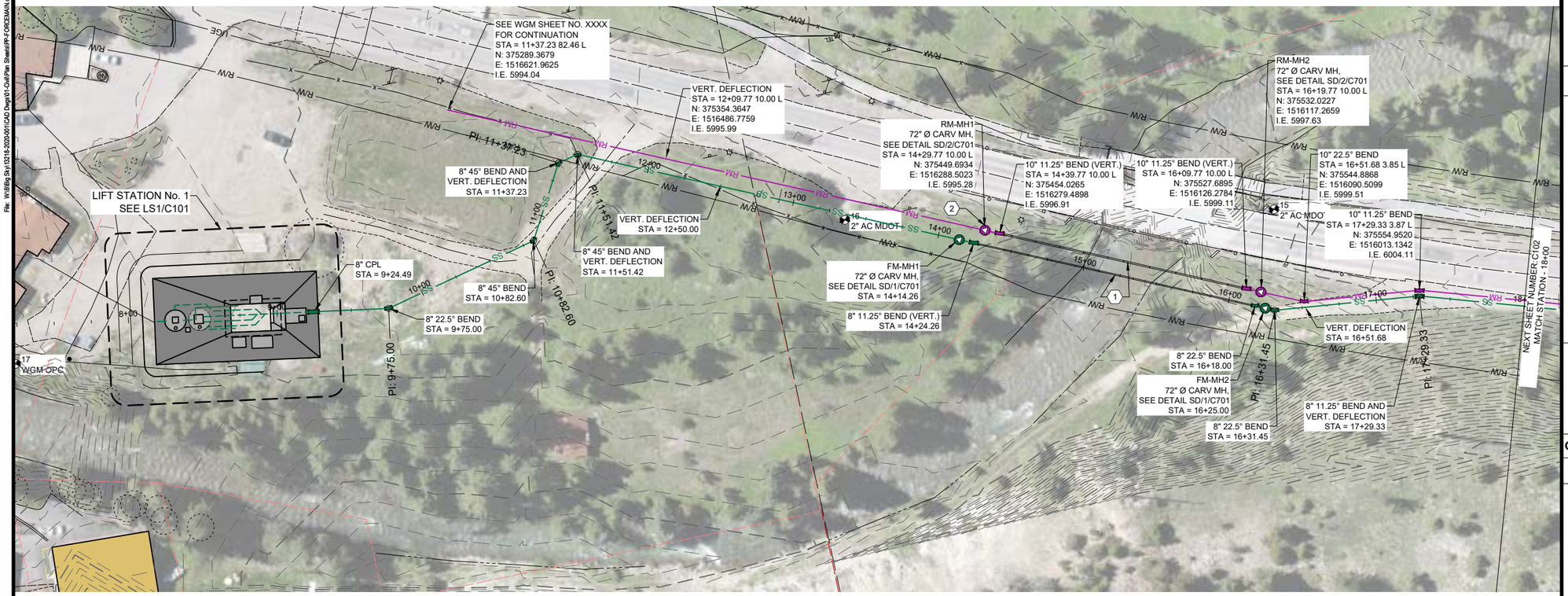
PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

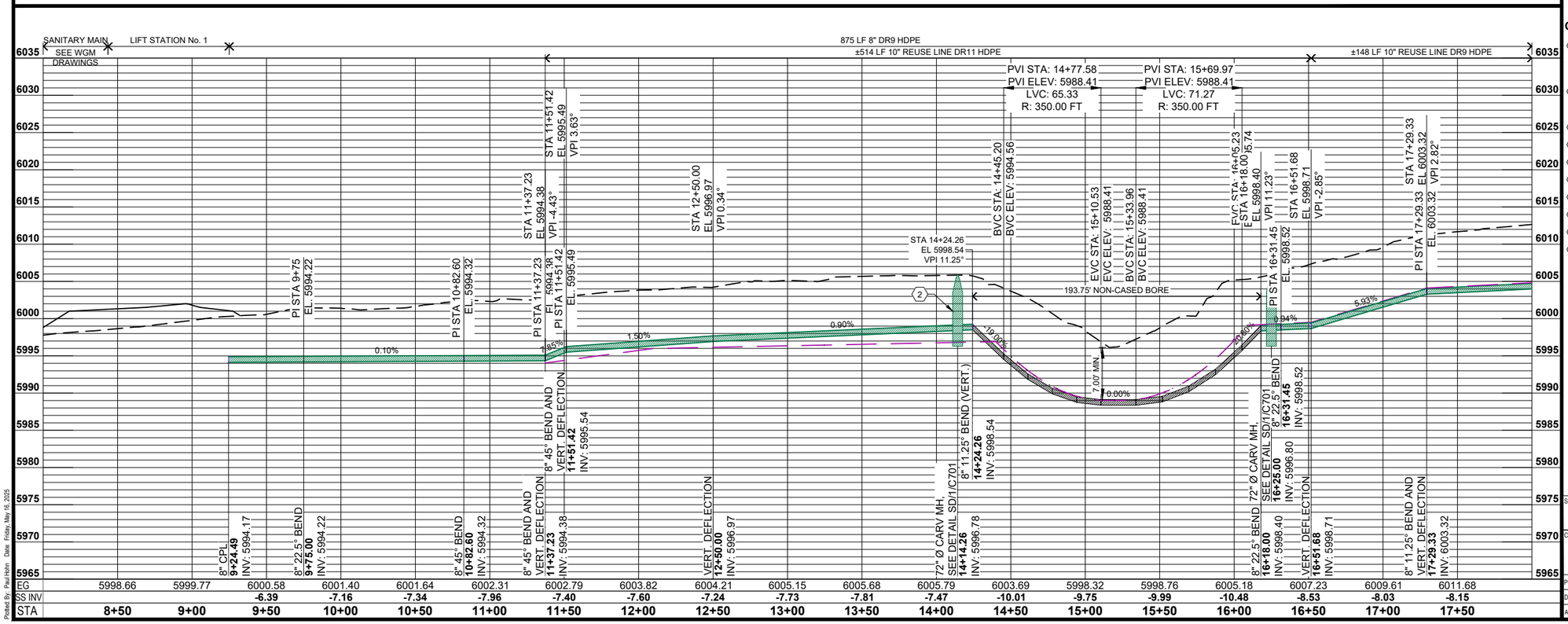
PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: **SW**

SHEET NO: **C002**

File: W:\BSg Sky\13218-2020001\CAD Dwgs\01-Civil\Plan Sheets\PP-FORCEMAIN.dwg





Plotted By: Paul Hohn Date: Friday, May 15, 2025

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

NORTH

0 40
Scale in Feet

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

CONSTRUCTION NOTES

1. DEPTH OF THE STREAM CHANNEL CROSS SECTION AND RELATED PIPE PROFILE DEPTH IS ESTIMATED BASED ON SOUTH SIDE SURVEY AND WILL BE UPDATED BASED ON SURVEY ON THE NORTH SIDE IN THE SUMMER 2025
2. SEE ELECTRICAL DRAWINGS FOR PRESSURE INDICATING TRANSMITTER POWER REQUIREMENTS IN REUSE MANHOLE RM-MH1
3.
4.
5.
6.
7.
8.
9.
10.

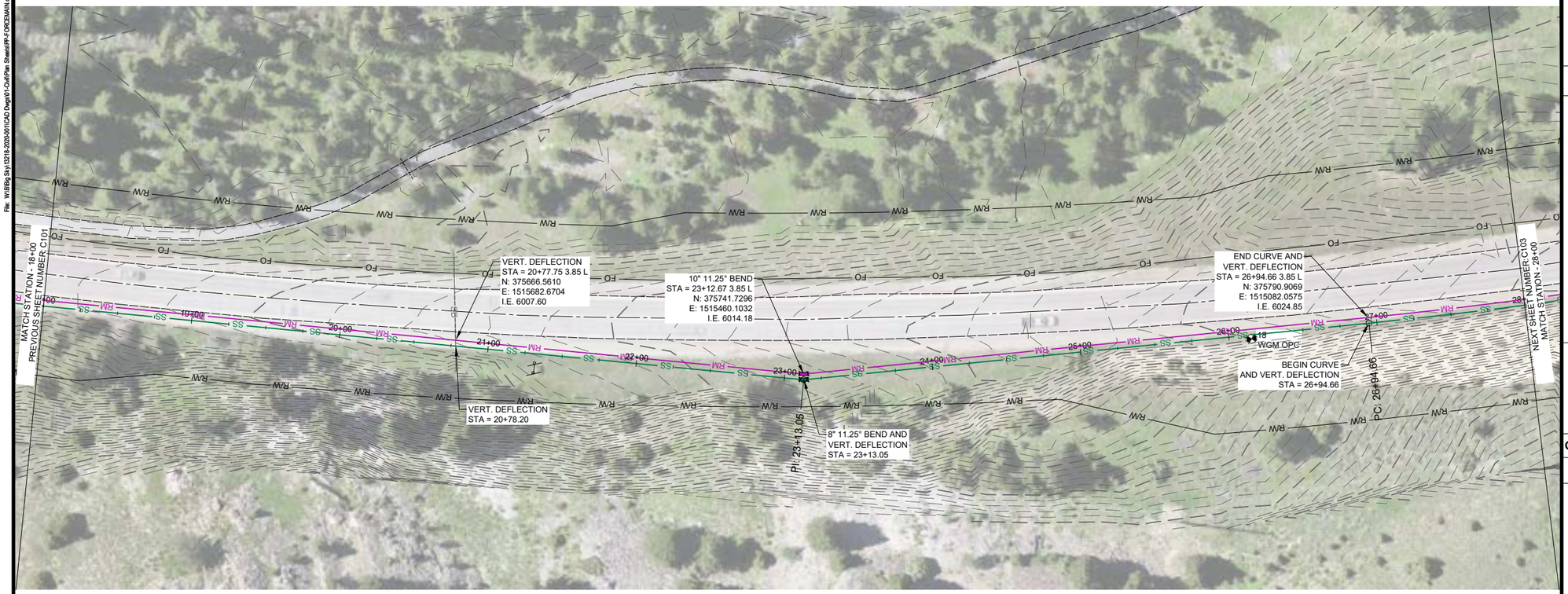
PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE
Advanced Engineering and Environmental Services, LLC www.ae2s.com

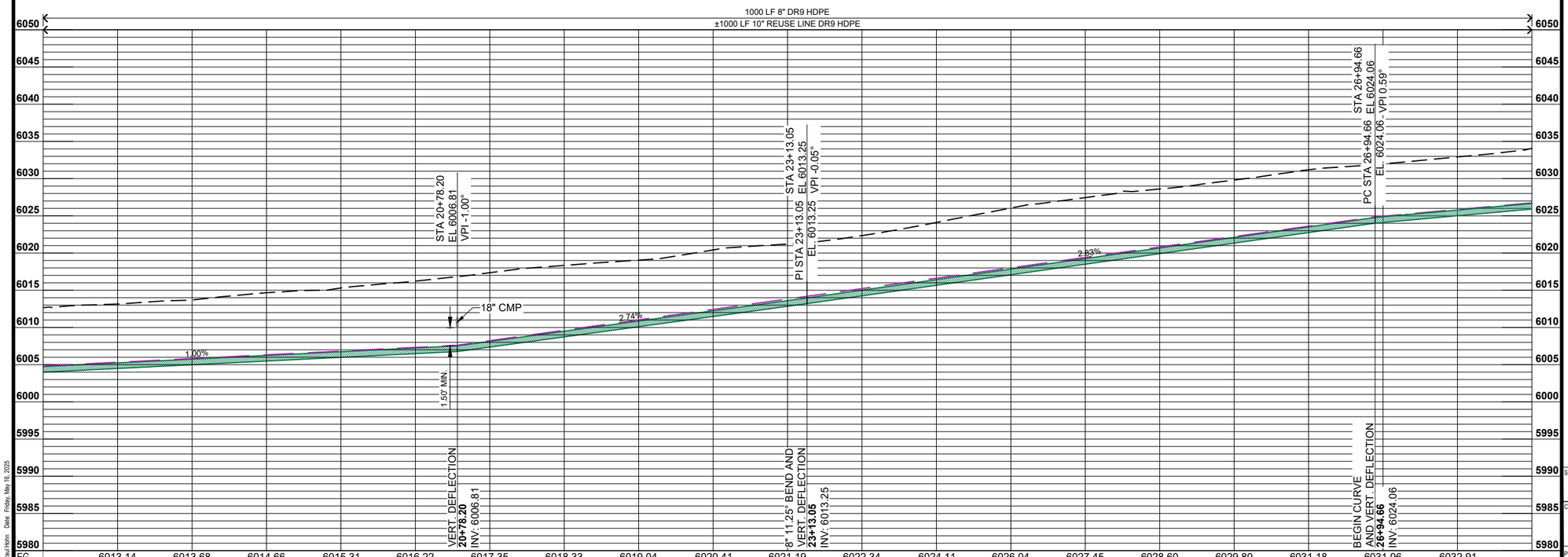
SHEET TITLE:
FORCE MAIN AND REUSE PLAN AND PROFILE

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:
SHEET DESIGNATOR: SW
SHEET NO: C101





STA	18+50	19+00	19+50	20+00	20+50	21+00	21+50	22+00	22+50	23+00	23+50	24+00	24+50	25+00	25+50	26+00	26+50	27+00	27+50
EG	6013.14	6013.68	6014.66	6015.31	6016.22	6017.35	6018.33	6019.04	6020.41	6021.19	6022.34	6024.11	6026.04	6027.45	6028.60	6029.80	6031.18	6031.96	6032.91
SS INV	-8.62	-8.66	-9.14	-9.28	-9.69	-9.94	-9.56	-8.89	-8.89	-8.30	-8.05	-8.39	-8.91	-8.90	-8.64	-8.43	-8.39	-7.81	-7.86

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC
NOT FOR CONSTRUCTION
PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

NORTH

0 40
Scale in Feet

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
FORCE MAIN AND REUSE PLAN AND PROFILE

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

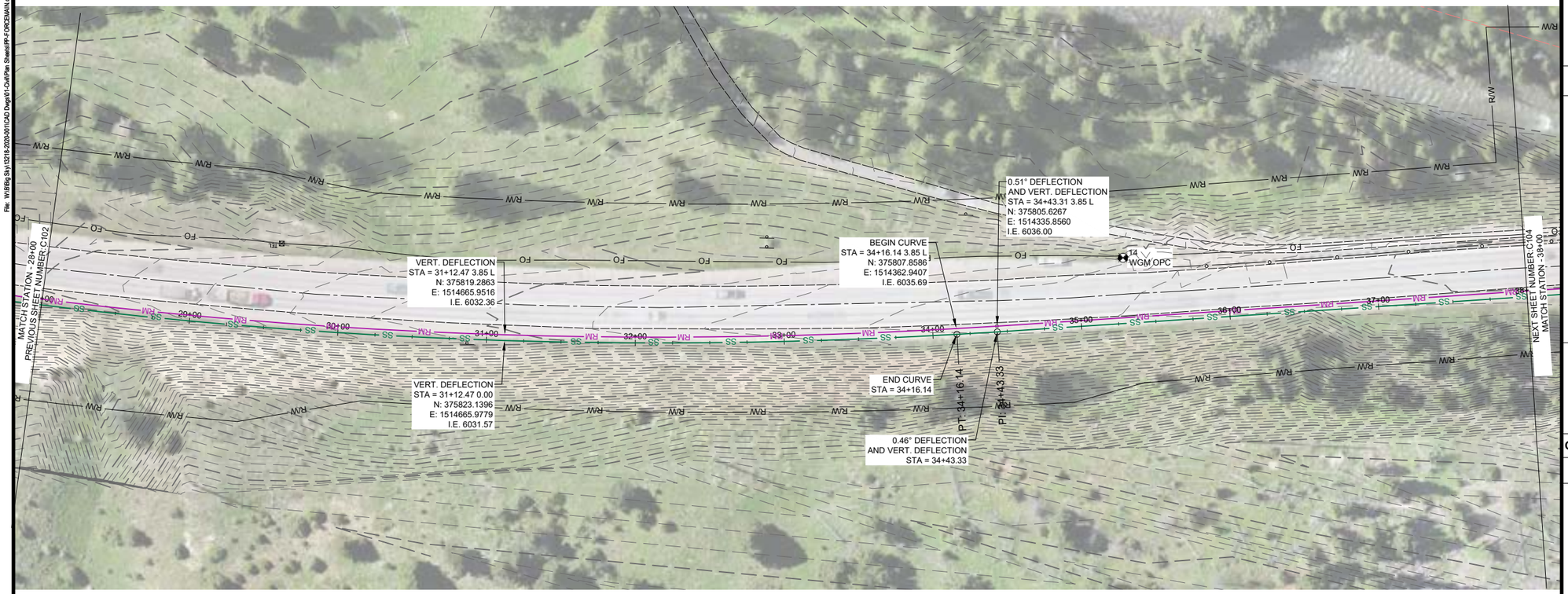
PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

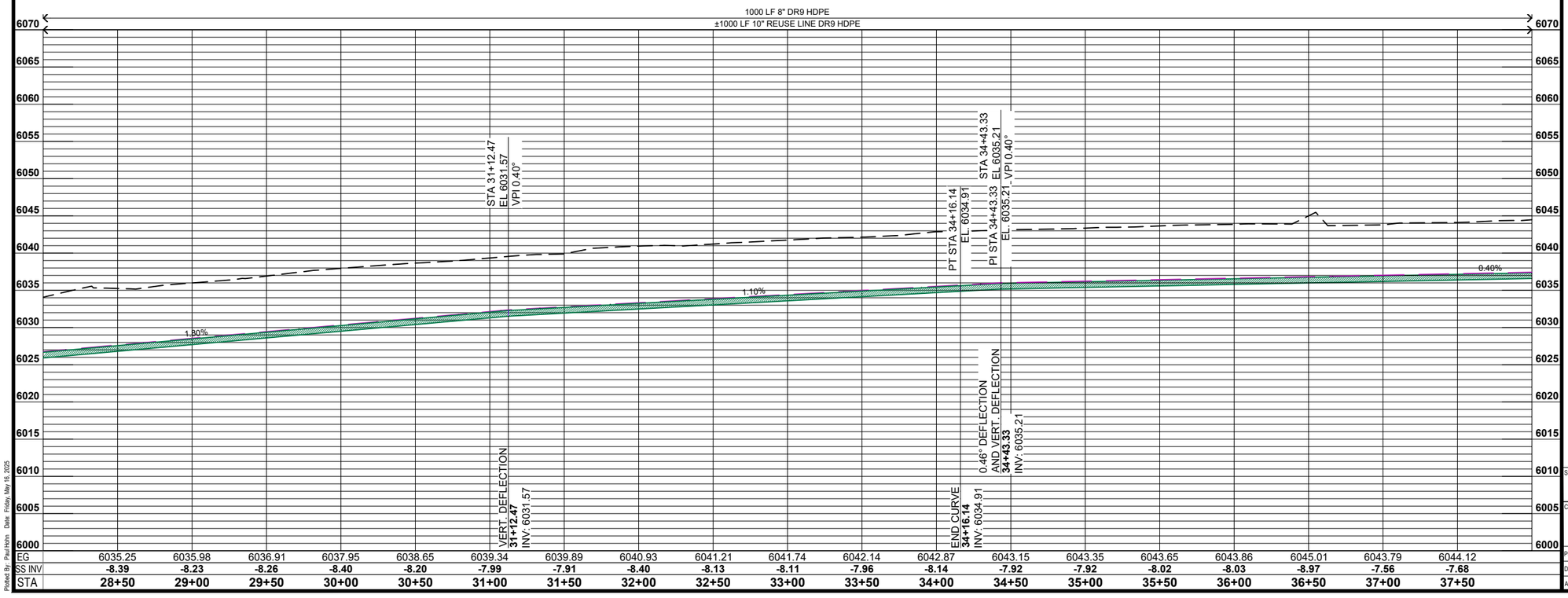
PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: SW

SHEET NO: C102

File: W:\BIGsky\13218-2020001\CAD Dwgs\01-Civil\Plan Sheets\PP-FORCEMAIN.dwg





Plotted By: Paul Hohn Date: Friday, May 16, 2025

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC
NOT FOR CONSTRUCTION
PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

NORTH

0 40
Scale in Feet

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE
Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
FORCE MAIN AND REUSE PLAN AND PROFILE

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

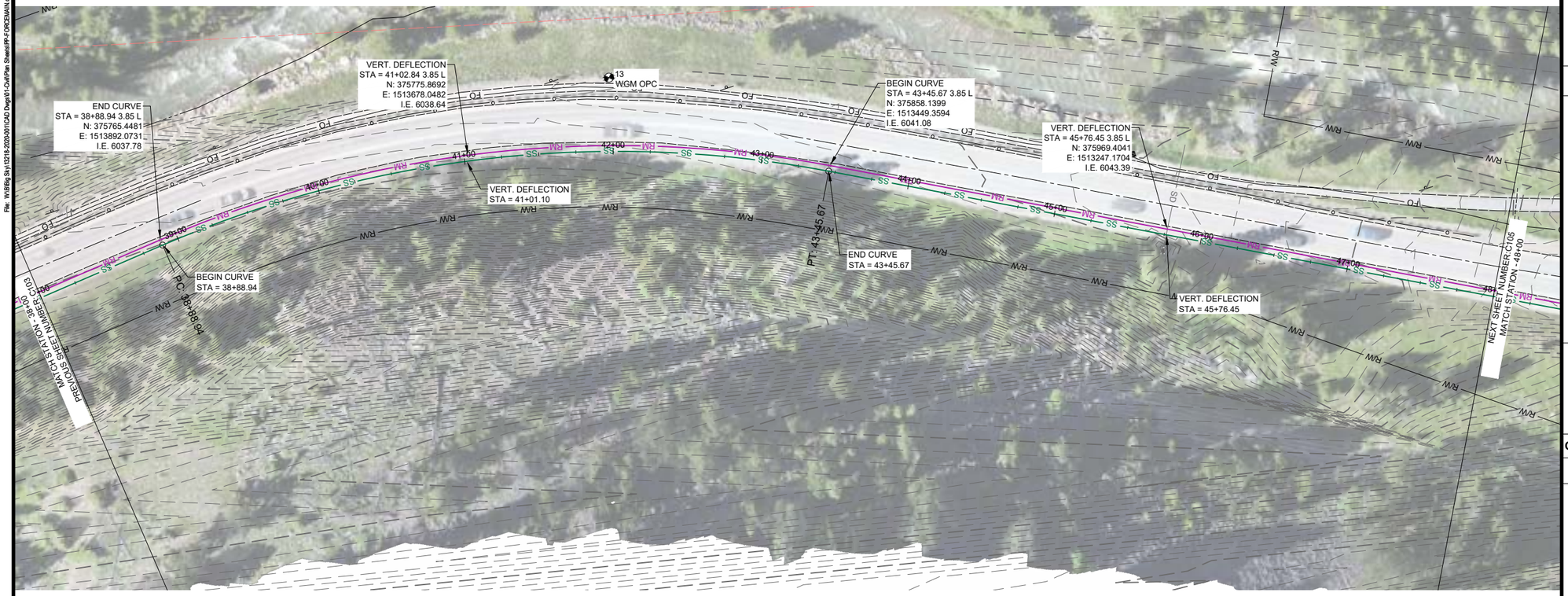
PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

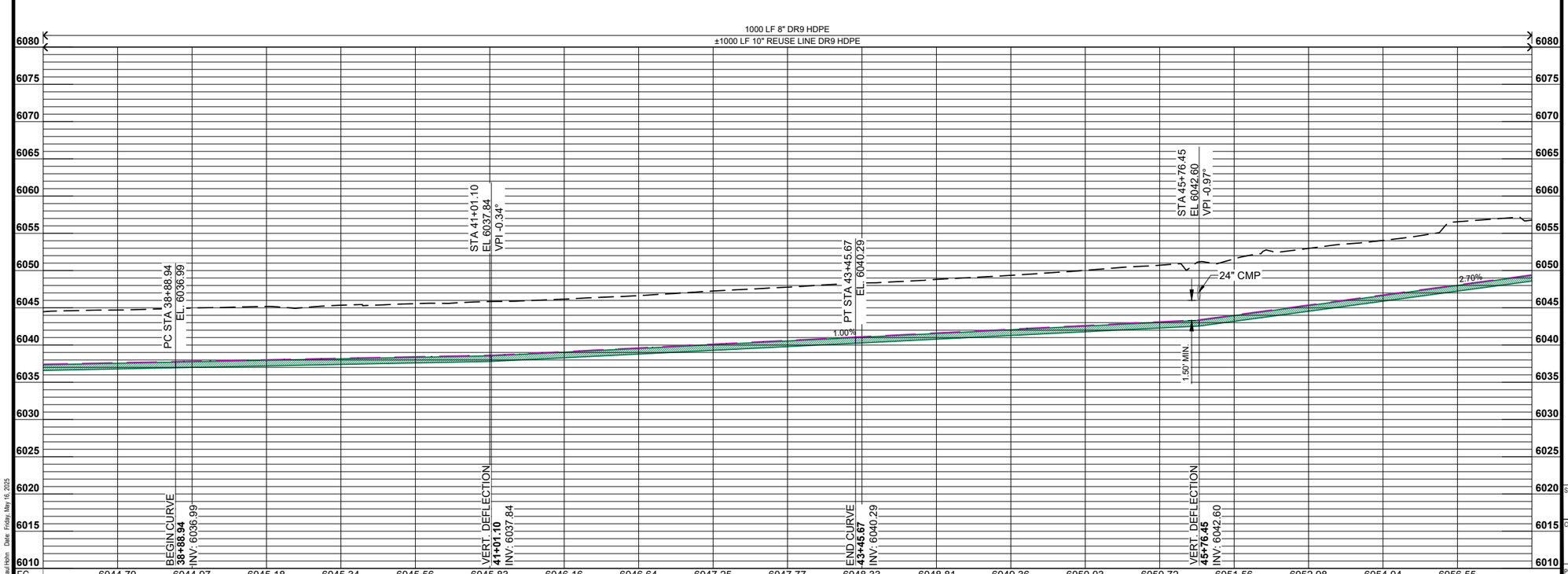
PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: **SW**

SHEET NO: **C103**

File: W:\BIG\Big Sky\13218-2020001\CAD Dwgs\01-Civil\Plan Sheets\PP-FORCEMAIN.dwg





EG	6044.70	6044.97	6045.18	6045.34	6045.56	6045.83	6046.16	6046.64	6047.25	6047.77	6048.33	6048.81	6049.36	6050.03	6050.72	6051.56	6052.98	6054.04	6056.55
SS INV	-7.86	-7.93	-7.95	-7.91	-7.92	-8.00	-7.83	-7.81	-7.92	-7.94	-8.00	-7.98	-8.03	-8.20	-8.38	-8.33	-8.39	-8.11	-9.27
STA	38+50	39+00	39+50	40+00	40+50	41+00	41+50	42+00	42+50	43+00	43+50	44+00	44+50	45+00	45+50	46+00	46+50	47+00	47+50

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC — NOT FOR CONSTRUCTION — PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

NORTH

0 40 Scale in Feet

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

APPR. | DATE | SYM.

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
FORCE MAIN AND REUSE PLAN AND PROFILE

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

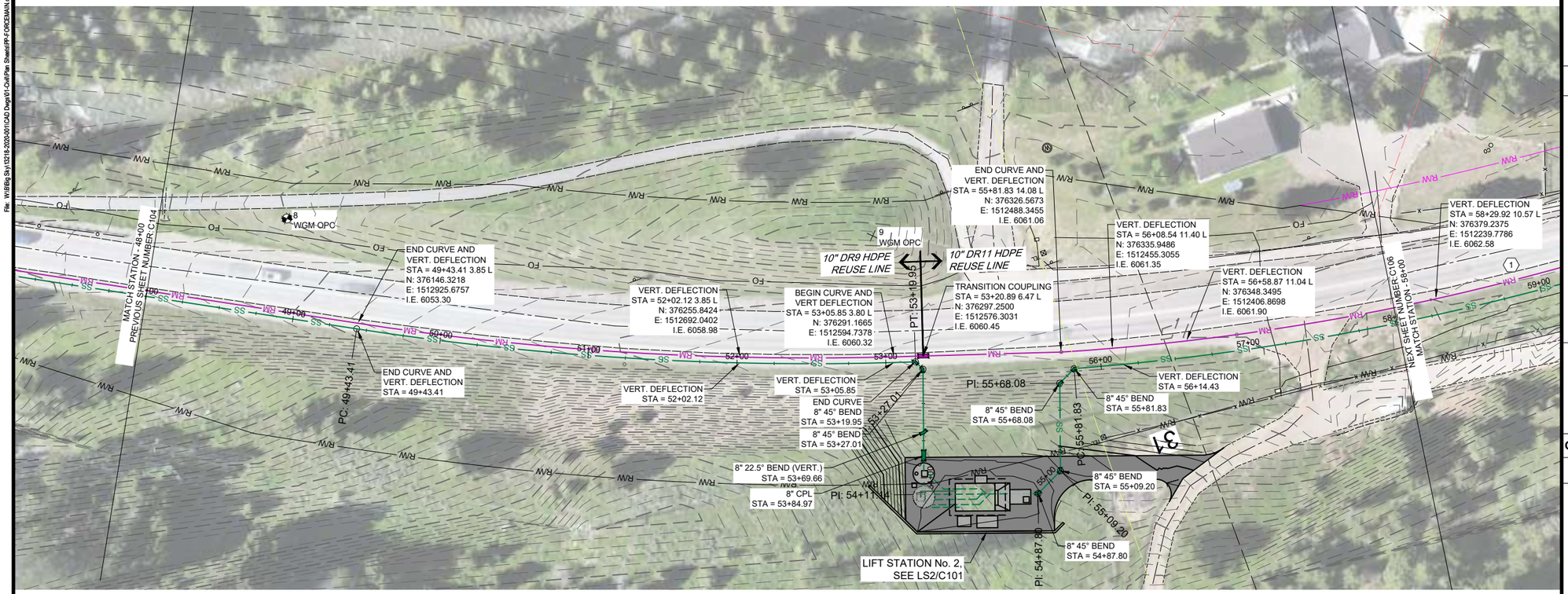
PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

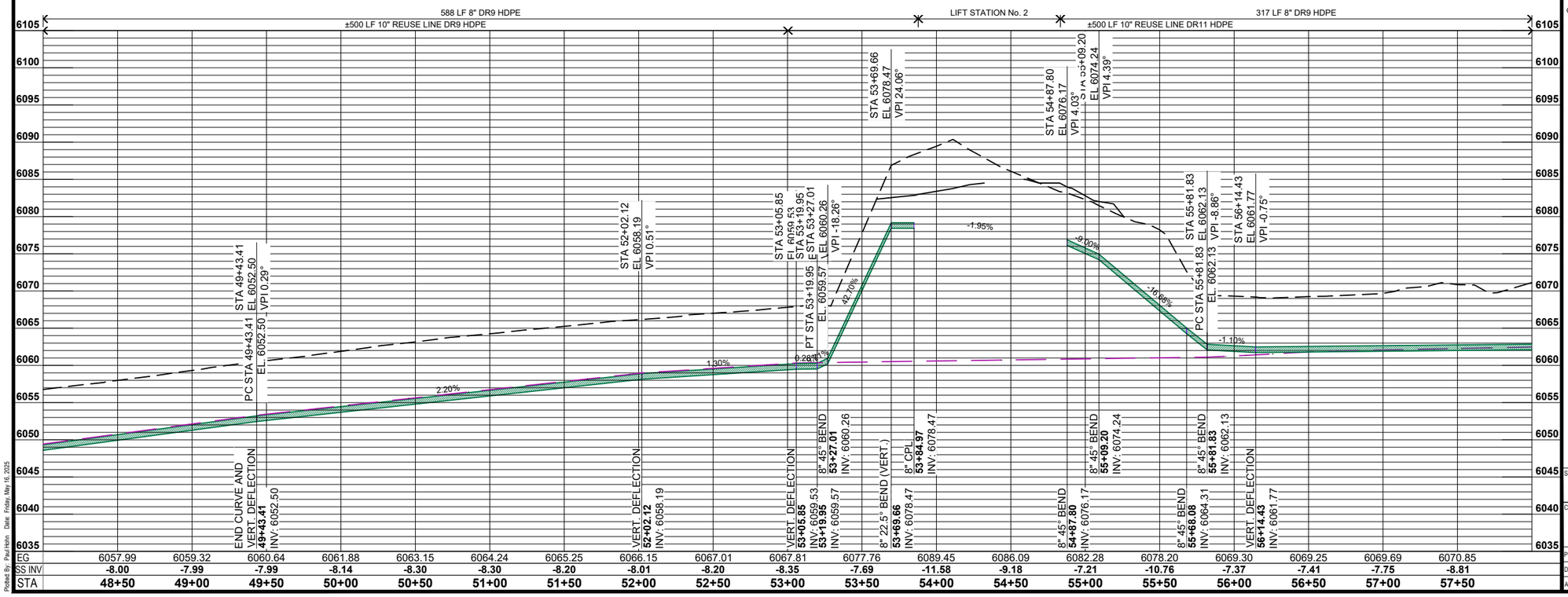
SHEET DESIGNATOR: SW

SHEET NO: C104

Plotted By: Paul Hohn Date: Friday, May 16, 2025

File: W:\BSg Sky\13218-2020001\CAD Dwgs\01-Civil\Plan Sheets\PP-FORCEMAIN.dwg





Plotted By: Paul Hohn Date: Friday, May 16, 2025

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC
NOT FOR CONSTRUCTION
PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

NORTH

0 40
Scale in Feet

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

CONSTRUCTION NOTES

1. SEE ELECTRICAL DRAWINGS FOR PRESSURE INDICATING TRANSMITTER POWER REQUIREMENTS IN REUSE MANHOLE RM-MH3 (SEE C106)

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

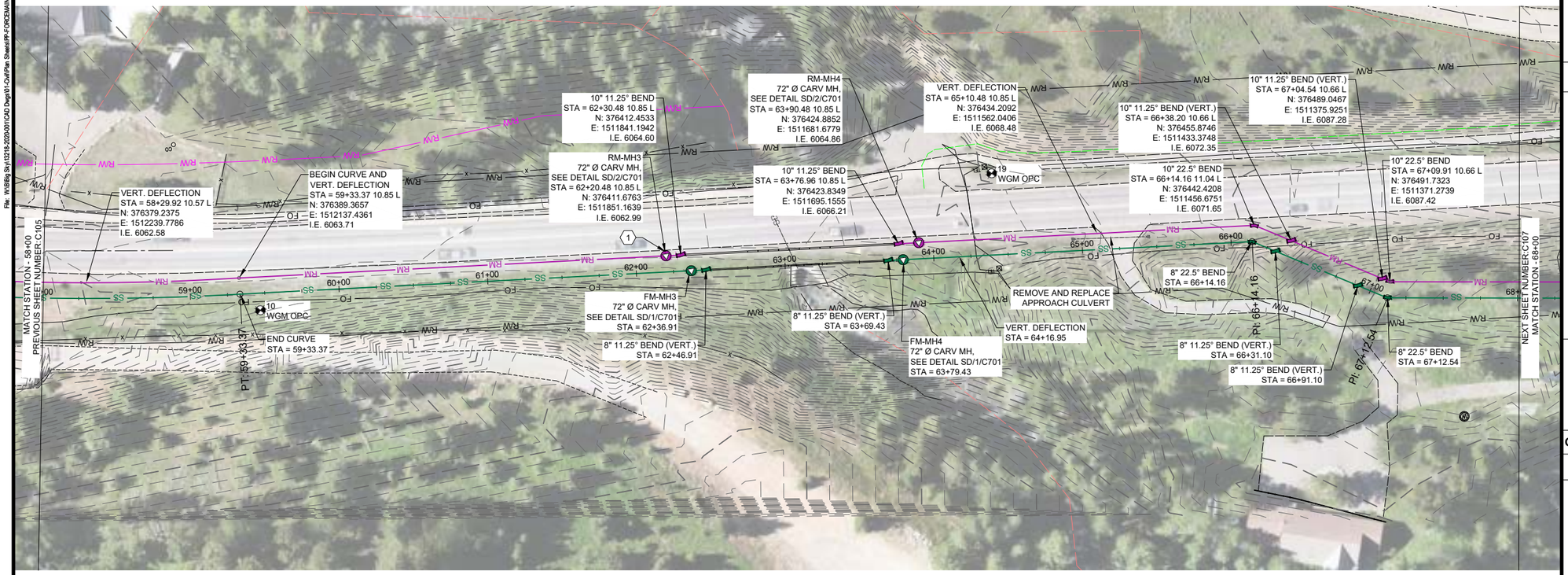
SHEET TITLE:
FORCE MAIN AND REUSE PLAN AND PROFILE

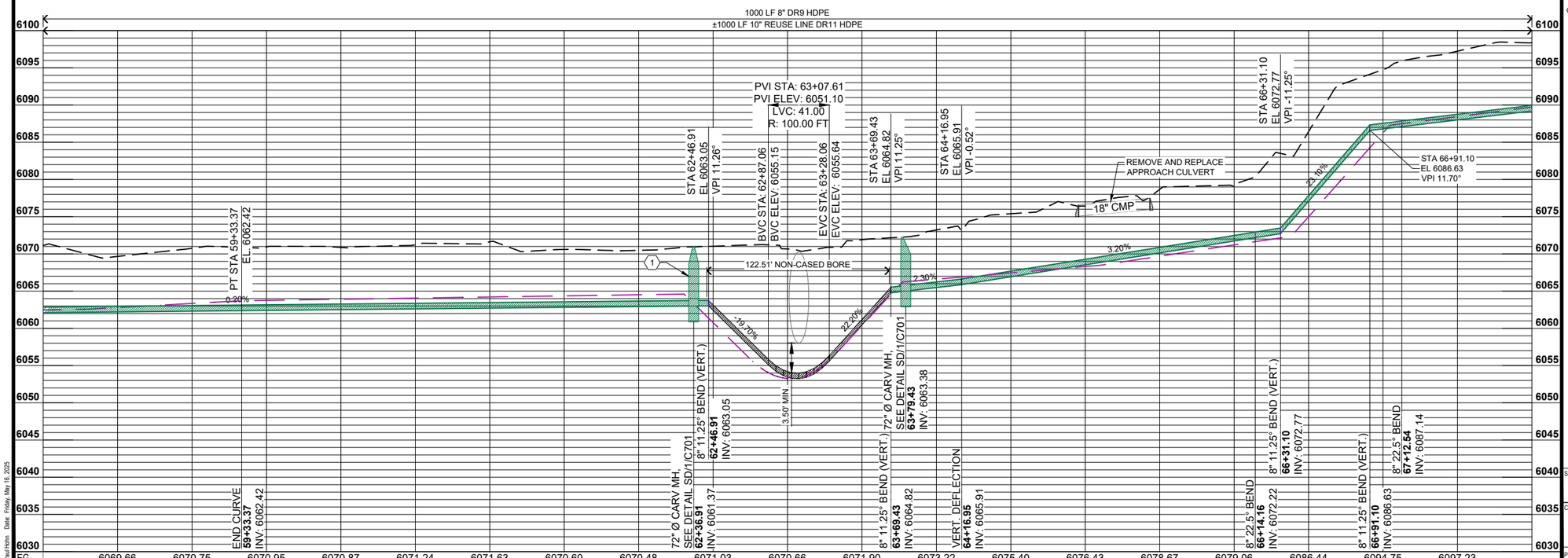
CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: **SW**
SHEET NO: **C105**





Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC
NOT FOR CONSTRUCTION
PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

NORTH

0 40
Scale in Feet

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

CONSTRUCTION NOTES

1. SEE ELECTRICAL DRAWINGS FOR PRESSURE INDICATING TRANSMITTER POWER REQUIREMENTS IN REUSE MANHOLE RM-MH3

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
FORCE MAIN AND REUSE PLAN AND PROFILE

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

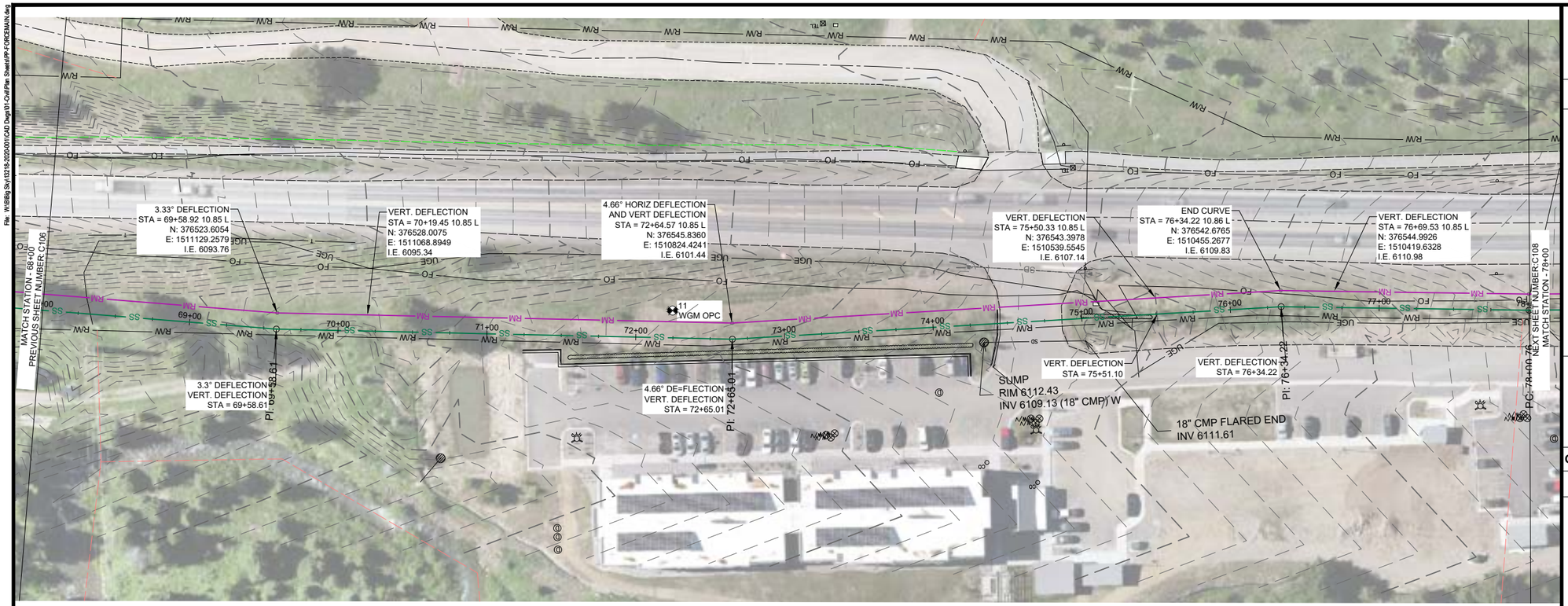
PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

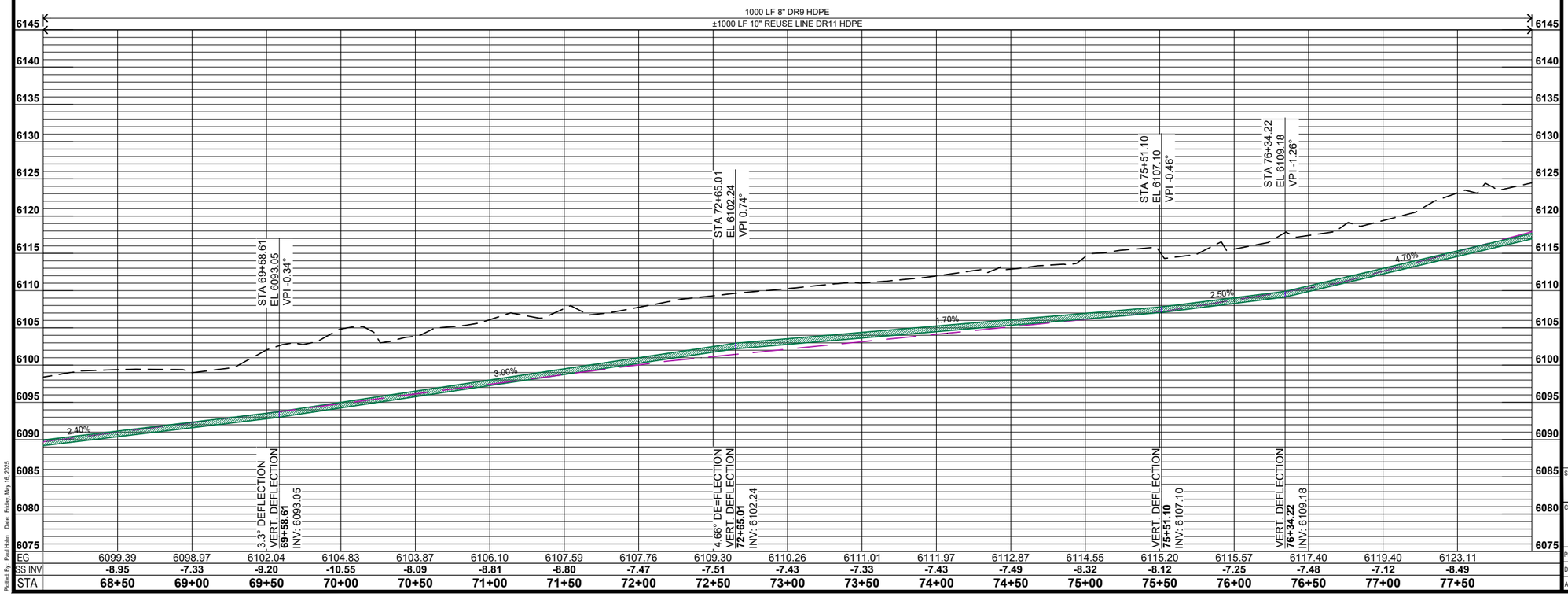
PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: SW
SHEET NO: C106

File: W:\BIG\Sky\13218-2020001\CAD Dwg\01-Civil\Plan Sheets\PP-FORCEMAIN.dwg
Plotted By: Paul Hohn Date: Friday, May 16, 2025

File: W:\BIGsky\13218-2020001\CAD Dwgs\01-Civil\Plan Sheets\PP-FORCEMAIN.dwg





EG	6099.39	6098.97	6102.04	6104.83	6103.87	6106.10	6107.59	6107.76	6109.30	6110.26	6111.01	6111.97	6112.87	6114.55	6115.20	6115.57	6117.40	6119.40	6123.11
SS INV	-8.95	-7.33	-9.20	-10.55	-8.09	-8.81	-8.80	-7.47	-7.51	-7.43	-7.33	-7.43	-7.49	-8.32	-8.12	-7.25	-7.48	-7.12	-8.49
STA	68+50	69+00	69+50	70+00	70+50	71+00	71+50	72+00	72+50	73+00	73+50	74+00	74+50	75+00	75+50	76+00	76+50	77+00	77+50

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC
NOT FOR CONSTRUCTION
PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

NORTH

0 40
Scale in Feet

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
FORCE MAIN AND REUSE PLAN AND PROFILE

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

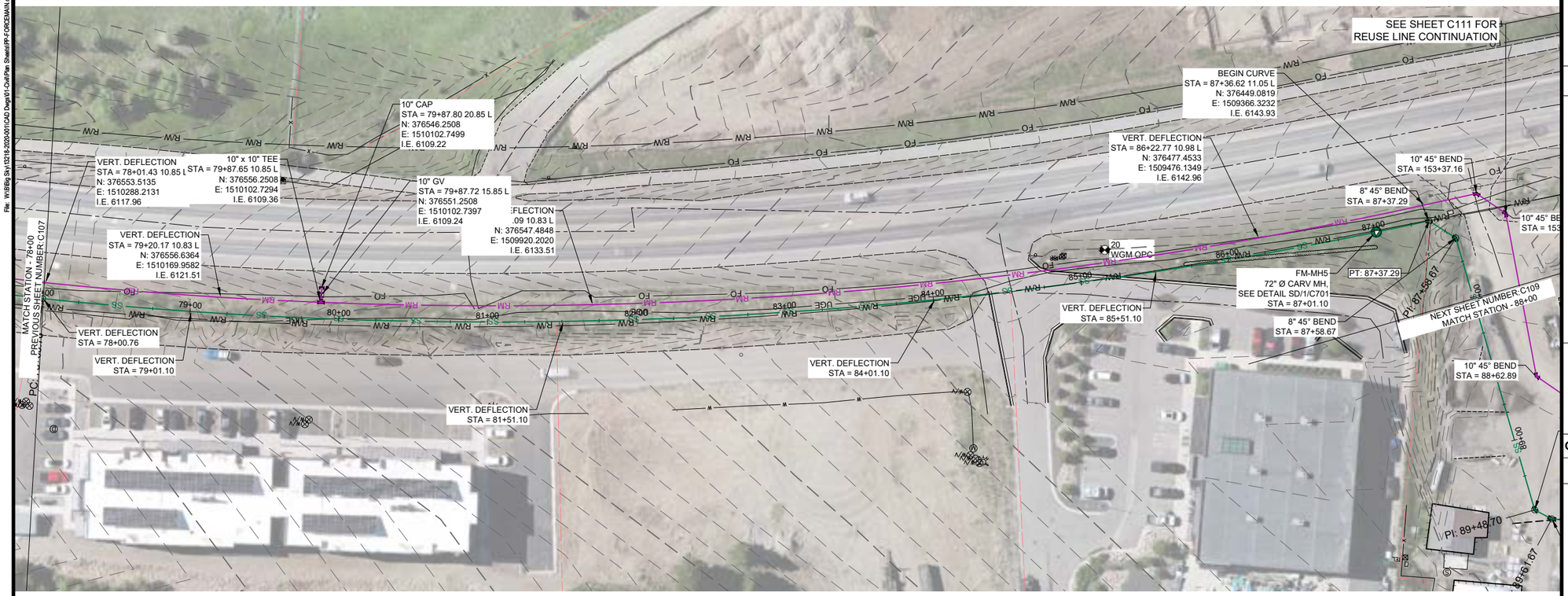
PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

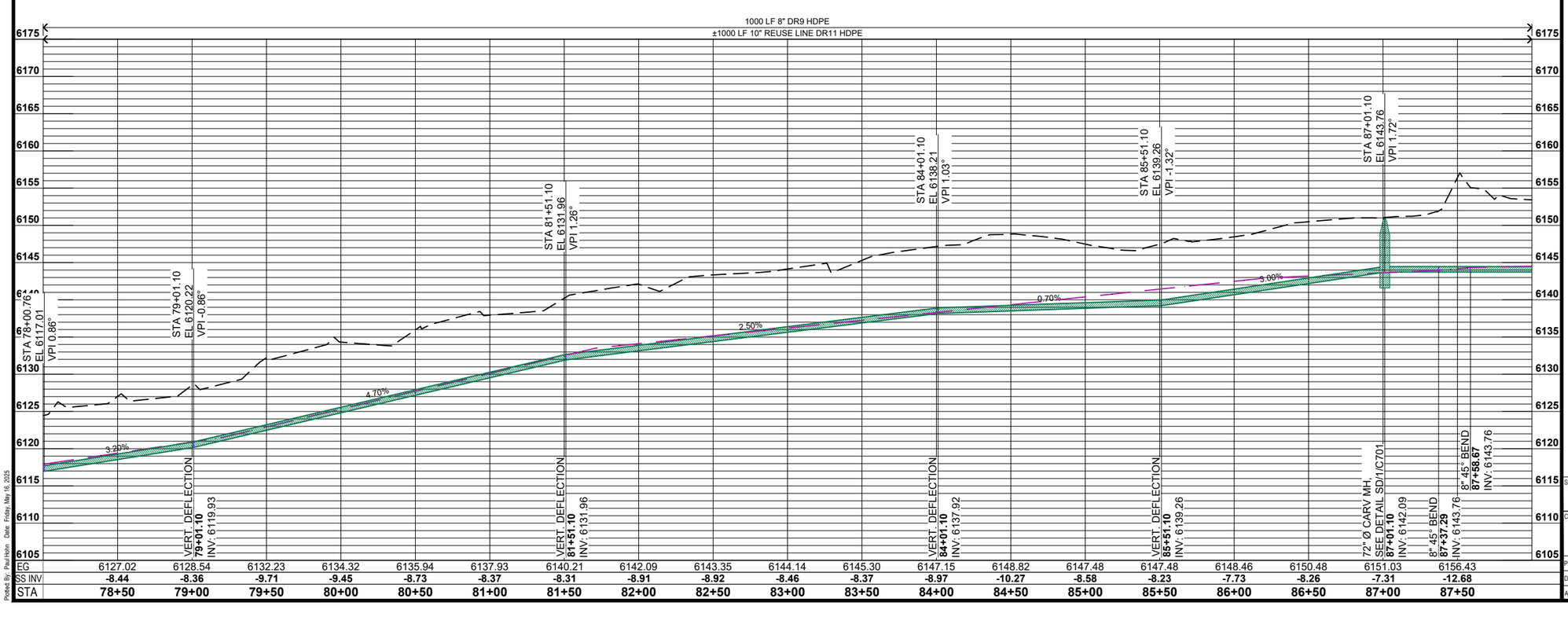
PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: **SW**

SHEET NO: **C107**

Plotted By: Paul Hohn Date: Friday, May 16, 2025





EG	6127.02	6128.54	6132.23	6134.32	6135.94	6137.93	6140.21	6142.09	6143.35	6144.14	6145.30	6147.15	6148.82	6147.48	6147.48	6148.46	6150.48	6151.03	6156.43
SS INV	-8.44	-8.36	-9.71	-9.45	-8.73	-8.37	-8.31	-8.91	-8.92	-8.46	-8.37	-8.97	-10.27	-8.58	-8.23	-7.73	-8.26	-7.31	-12.68
STA	78+50	79+00	79+50	80+00	80+50	81+00	81+50	82+00	82+50	83+00	83+50	84+00	84+50	85+00	85+50	86+00	86+50	87+00	87+50

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

NORTH

0 40 Scale in Feet

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC
NOT FOR CONSTRUCTION
PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

APPR	DATE	SYM

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE
Advanced Engineering and Environmental Services, LLC www.ae2s.com

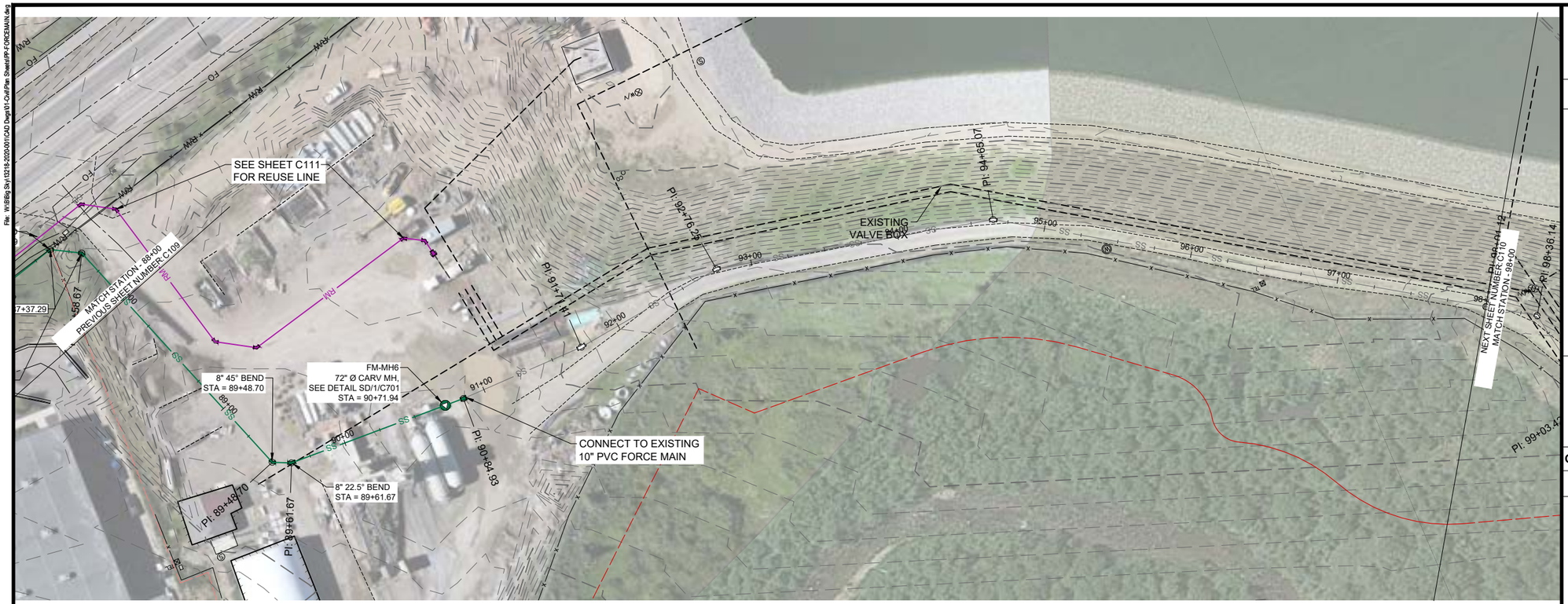
SHEET TITLE:
FORCE MAIN AND REUSE PLAN AND PROFILE

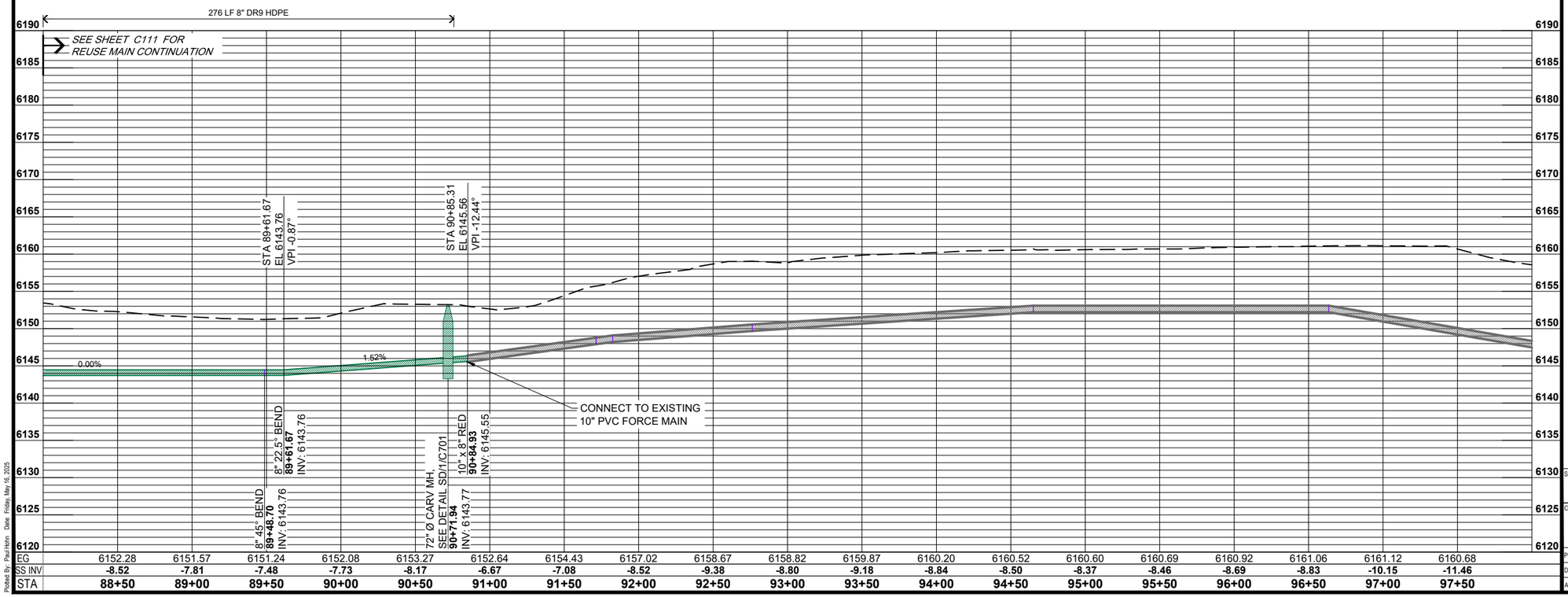
CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: **SW**
SHEET NO: **C108**





EG	6152.28	6151.57	6151.24	6152.08	6153.27	6152.64	6154.43	6157.02	6158.67	6158.82	6159.87	6160.20	6160.52	6160.60	6160.69	6160.92	6161.06	6161.12	6160.68
SS INV	-8.52	-7.81	-7.48	-7.73	-8.17	-6.67	-7.08	-8.52	-9.38	-8.80	-9.18	-8.84	-8.50	-8.37	-8.46	-8.69	-8.83	-10.15	-11.46
STA	88+50	89+00	89+50	90+00	90+50	91+00	91+50	92+00	92+50	93+00	93+50	94+00	94+50	95+00	95+50	96+00	96+50	97+00	97+50

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC — NOT FOR CONSTRUCTION — PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

NORTH

0 40 Scale in Feet

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
FORCE MAIN AND REUSE PLAN AND PROFILE

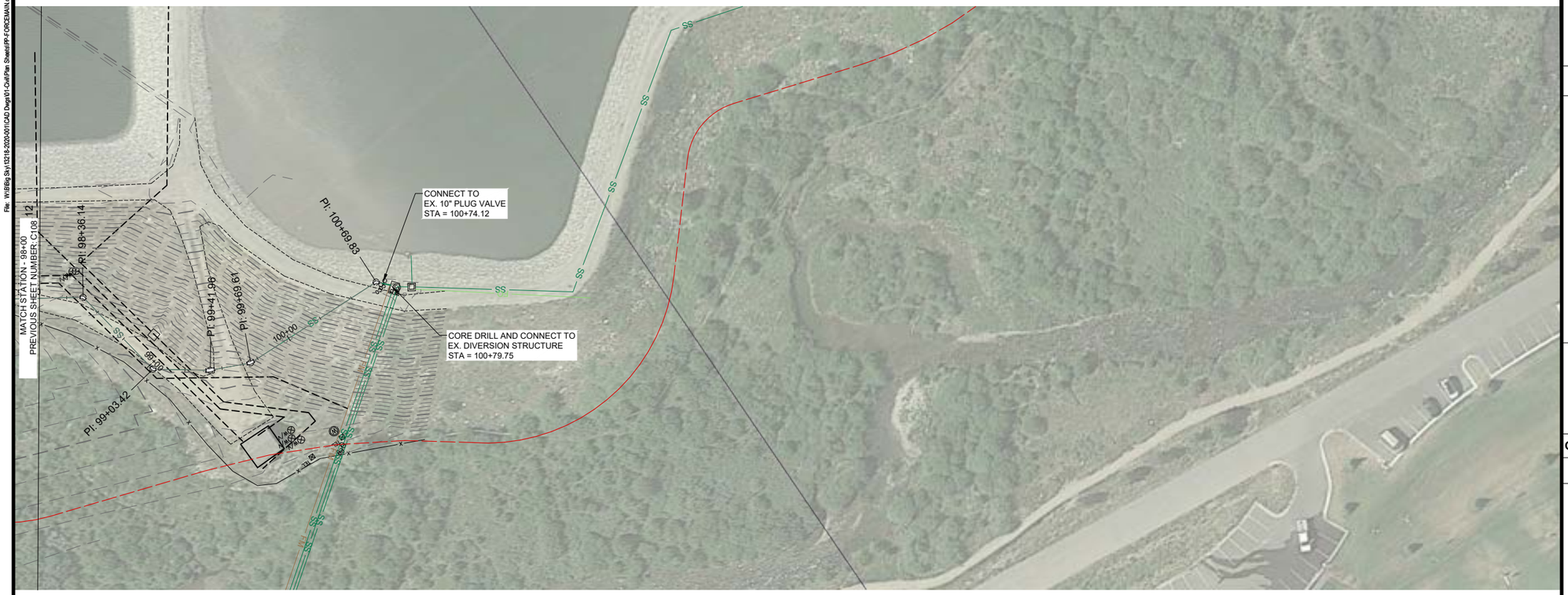
CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

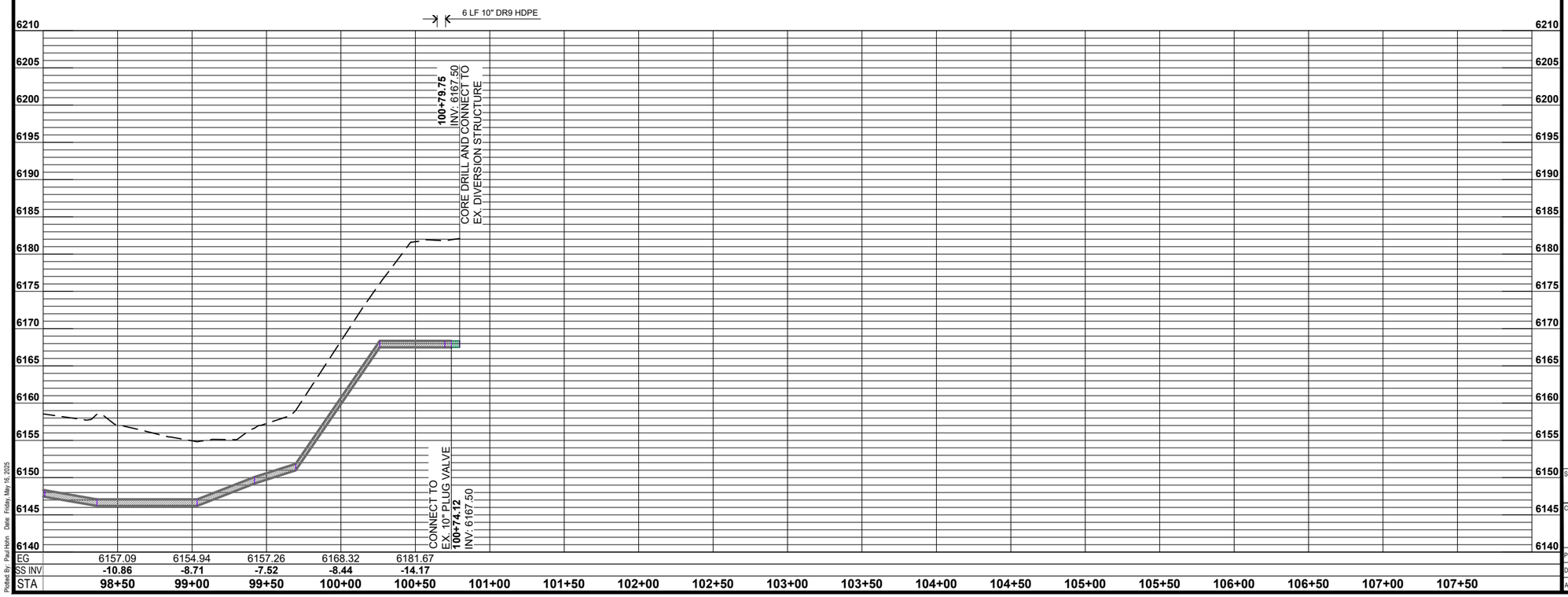
PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: **SW**
SHEET NO: **C109**

Plotted By: Paul Hohn Date: Friday, May 16, 2025
File: W:\BIGsk\13218-2020001\CAD Dwgs\01-Civil\Plan Sheets\PP-FORCEMAIN.dwg





Plotted By: Paul Hohn Date: Friday, May 16, 2025

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC
NOT FOR CONSTRUCTION
PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

NORTH

0 40
Scale in Feet

GENERAL NOTES

1. STATION AND OFFSETS SHOWN WHERE LINES ARE PARALLEL ARE FROM FORCE MAIN ALIGNMENT.

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
FORCE MAIN AND REUSE PLAN AND PROFILE

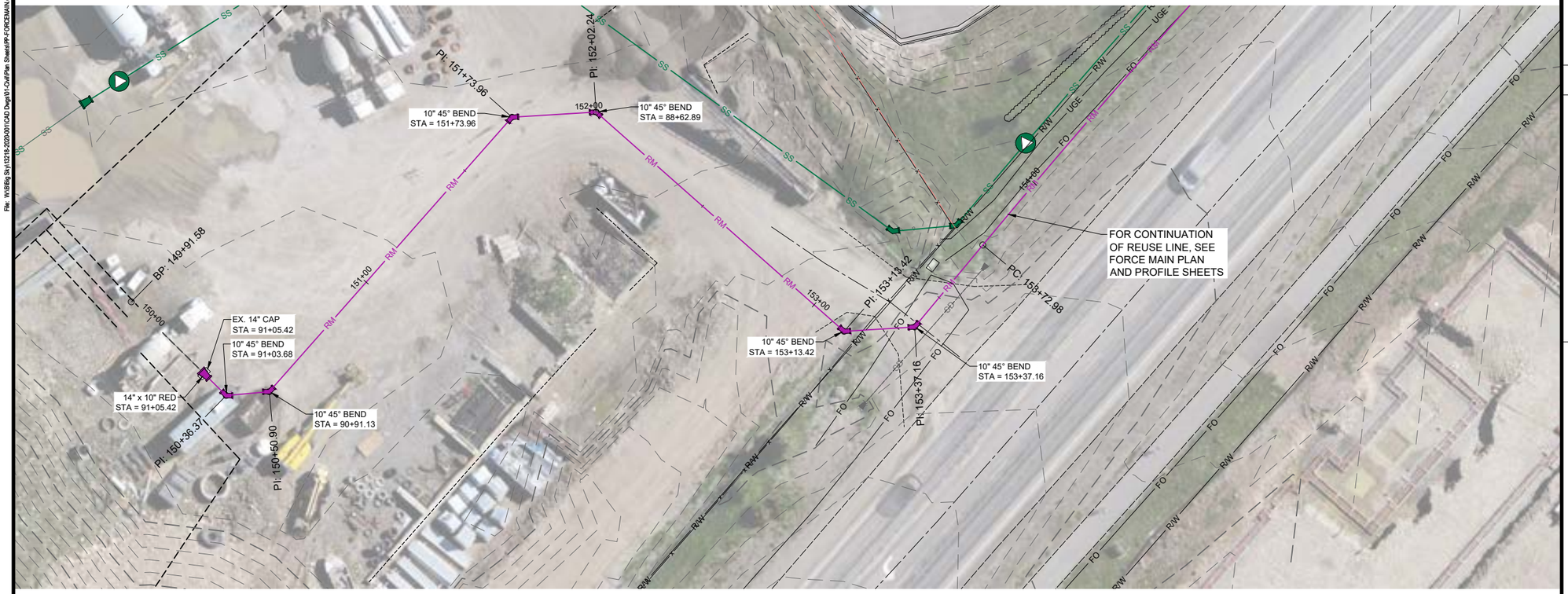
CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

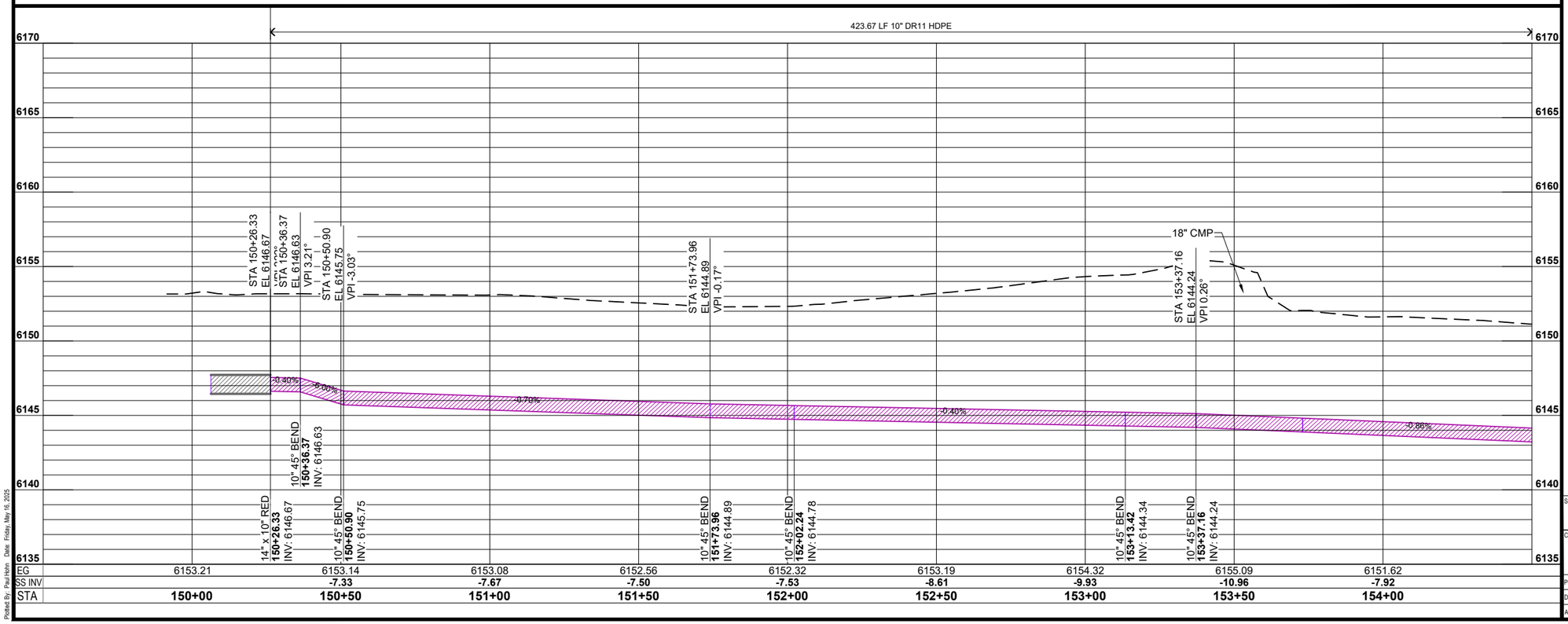
PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: SW
SHEET NO: C110

File: W:\BIG\Big Sky\13218-2020001\CAD Dwgs\01-Civil\Plan Sheets\PP-FORCEMAIN.dwg





Plotted By: Paul Hohn Date: Friday, May 16, 2025

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC
NOT FOR CONSTRUCTION
PRELIMINARY

STATUS: 60% DESIGN SUBMITTAL

SYM	DATE	APPR

NORTH

0 20
Scale in Feet

LEGEND

- SS — SANITARY SEWER FORCE MAIN
- SS — EXISTING 12" SS FORCE MAIN
- RM — REUSE MAIN
- REUSE MAIN INVERT (IN PROFILE)
- DIRECTIONAL DRILL OR BORE

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

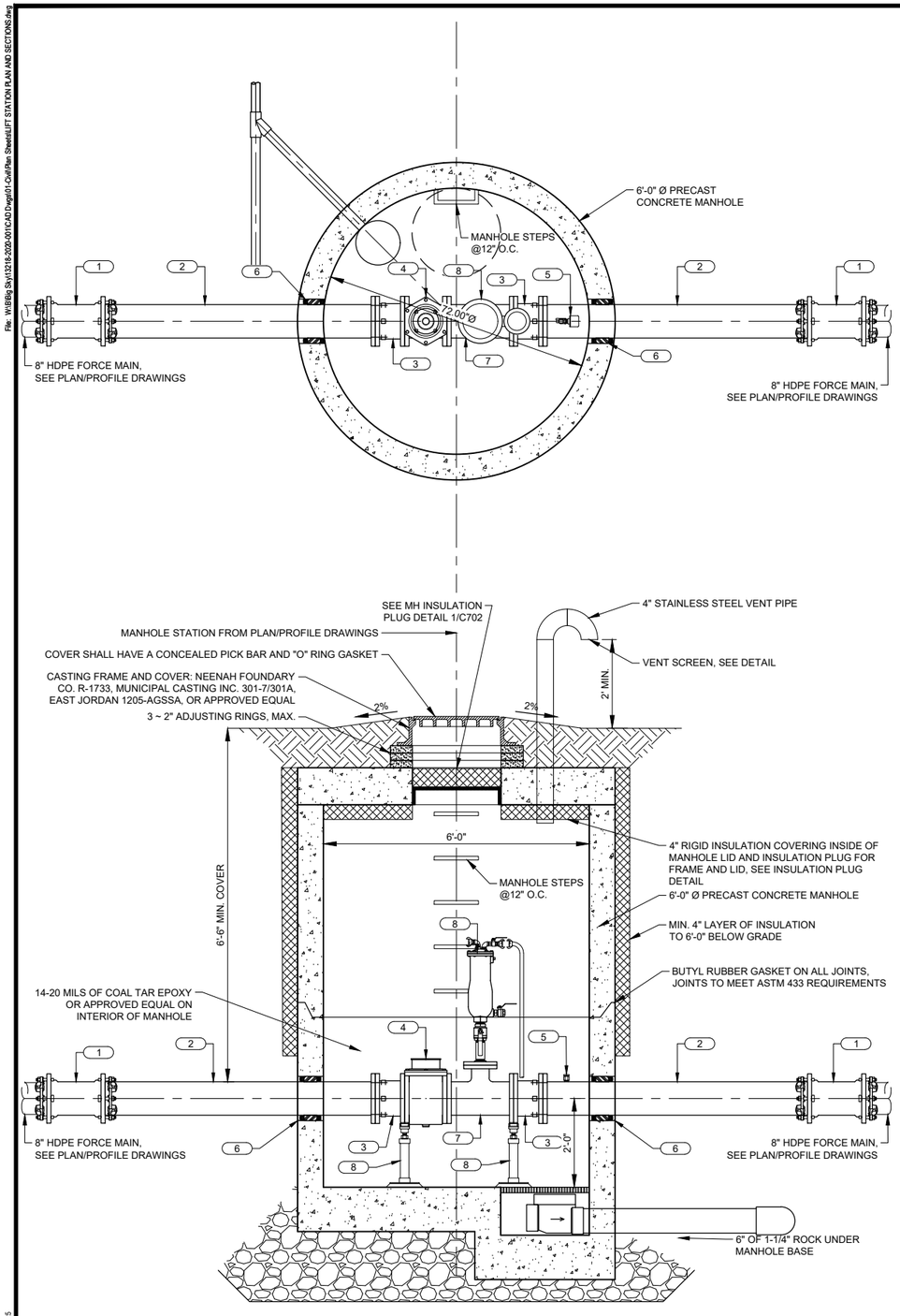
SHEET TITLE:
REUSE PLAN AND PROFILE

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

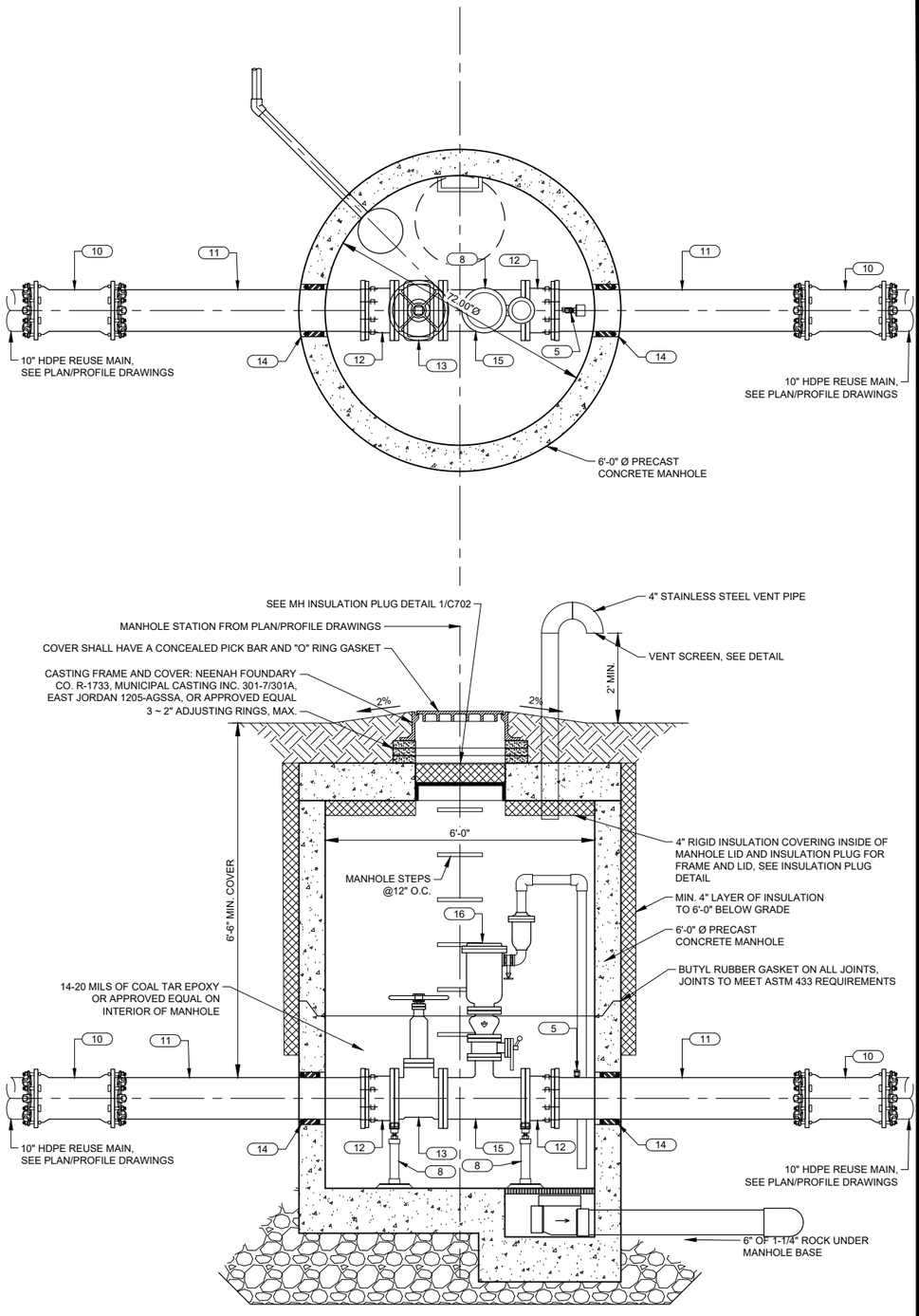
PREPARED BY: PWH
CHECKED BY: RT
APPROVED BY: KW

PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: SW
SHEET NO: C111



1 C701 **8" FORCE MAIN ISOLATION AIR RELIEF VALVE MANHOLE**
SCALE: NONE



2 C701 **10" REUSE LINE ISOLATION & COMBINATION AIR VACUUM VALVE MANHOLE**
SCALE: NONE

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC
NOT FOR CONSTRUCTION
PRELIMINARY

STATUS: **60% DESIGN SUBMITTAL**

SYM	DATE	APPR

GENERAL NOTES

1. SEE PLAN AND PROFILE SHEETS FOR APPROXIMATE LOCATION OF MANHOLE. PRECISE LOCATION AND ORIENTATION OF MANHOLE AND VENT PIPE TO BE DETERMINED IN THE FIELD BY THE ENGINEER BASED UPON CONDITIONS ENCOUNTERED.
2. THE SUPPLIER OF THE PRECAST CONCRETE MANHOLE SHALL DESIGN AND PROVIDE DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MONTANA AND SUBMITTED TO THE ENGINEER FOR REVIEW. SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

IMPROVEMENTS

1. 8" TRANSITION COUPLING (DIPS HDPE-DI) (RMJxRMJ)
2. 8" DI PIPE SPOOL (PE X PE)
3. 8" FLANGE ADAPTER
4. 8" PLUG VALVE (FL X FL)
5. TAP PIPE W/ 3/4" HOLE AND PLUG
6. 8" ANNULAR SEAL
7. 8"X4" DI REDUCING TEE (FL X FL)
8. 2" SEWAGE AIR RELEASE VALVE
9. PIPE SUPPORT
10. 10" TRANSITION COUPLING (DIPS HDPE-DI) (RMJxRMJ)
11. 10" DI PIPE SPOOL (PE X PE)
12. 10" FLANGE ADAPTER
13. 10" WEDGE GATE VALVE (FL X FL)
14. 10" ANNULAR SEAL
15. 10"X4" DI REDUCING TEE (FL X FL)
16. 4" COMBINATION AIR RELEASE/VACUUM RELIEF VALVE

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

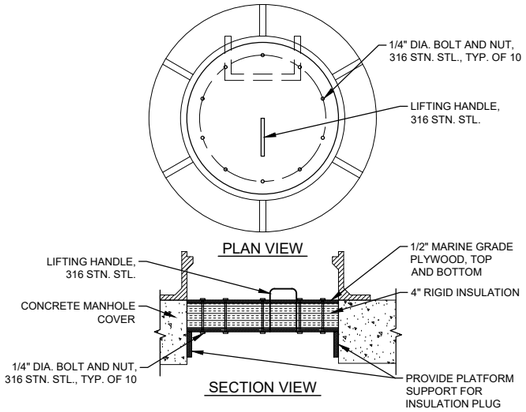
SHEET TITLE:
ISOLATION VALVE & COMBINATION AIR VALVE MANHOLE

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

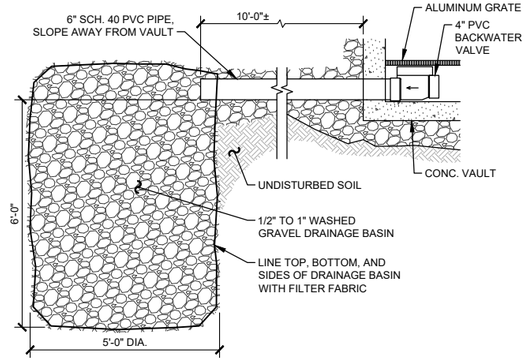
PREPARED BY: PWH
CHECKED BY: ARW
APPROVED BY: KW

PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: **SD**
SHEET NO: **C701**



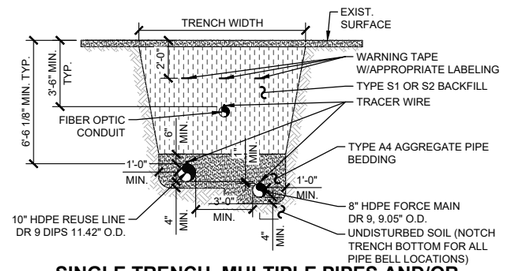
1 C702 INSULATION PLUG DETAIL
SCALE: NONE



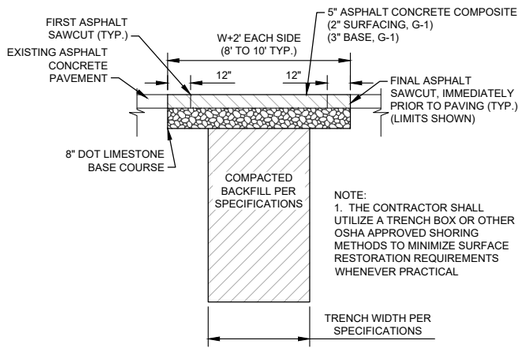
2 C702 VAULT DRAIN DETAIL
SCALE: NONE

NOTES

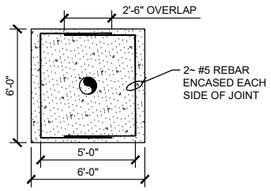
1. TRENCH EXCAVATION SHALL COMPLY WITH ALL OSHA REQUIREMENTS.
2. DEWATERING SHALL BE IMPLEMENTED IN AREAS OF HIGH GROUND WATER.
3. NO ROCKS LARGER THAN 3" DIAMETER WILL BE ALLOWED IN PIPE ZONE OR TRENCH ZONE. NO ROCKS LARGER THAN 6" DIAMETER WILL BE ALLOWED IN THE BACKFILL ZONE. CONTRACTOR TO PROPERLY DISPOSE OF UNWANTED ROCKS.
4. SEE SPECIFICATIONS FOR COMPACTION REQUIREMENTS.

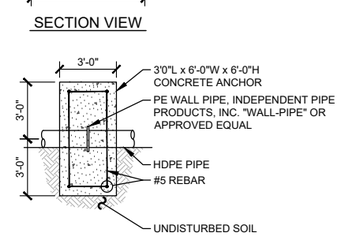


3 C702 SINGLE TRENCH, MULTIPLE PIPES AND/OR CONDUITS BEDDING AND BACKFILLING DETAIL
SCALE: NONE



4 C702 TYPICAL UTILITY CROSSING AT ASPHALT CONCRETE PAVEMENT
SCALE: NONE

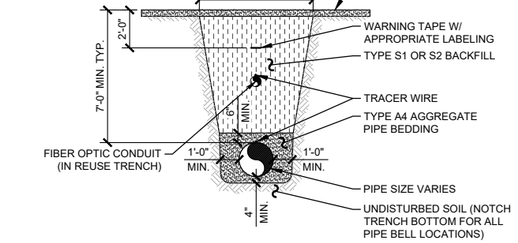




5 C702 CONCRETE HDPE PIPE RESTRAINT DETAIL
SCALE: NONE

NOTES

1. TRENCH EXCAVATION SHALL COMPLY WITH ALL OSHA REQUIREMENTS.
2. DEWATERING SHALL BE IMPLEMENTED IN AREAS OF HIGH GROUND WATER.
3. NO ROCKS LARGER THAN 3" DIAMETER WILL BE ALLOWED IN PIPE ZONE OR TRENCH ZONE. NO ROCKS LARGER THAN 6" DIAMETER WILL BE ALLOWED IN THE BACKFILL ZONE. CONTRACTOR TO PROPERLY DISPOSE OF UNWANTED ROCKS.
4. SEE SPECIFICATIONS FOR COMPACTION REQUIREMENTS.



6 C702 SINGLE PIPE BEDDING AND BACKFILLING DETAIL
SCALE: NONE

STATUS: 60% DESIGN SUBMITTAL

APPR	SYM	DATE

PROJECT TITLE:
BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE
Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
CIVIL DETAILS

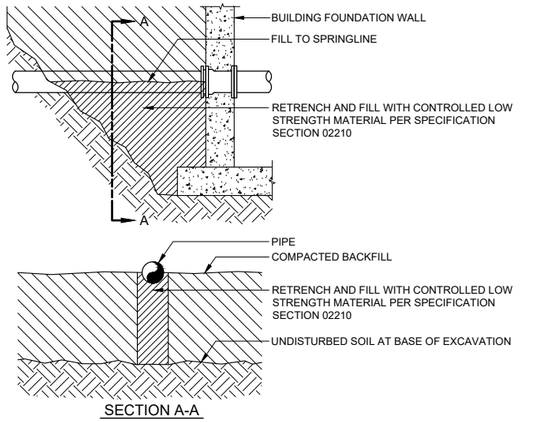
CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

PREPARED BY: PWH
CHECKED BY: ARW
APPROVED BY: KW

PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: **SD**

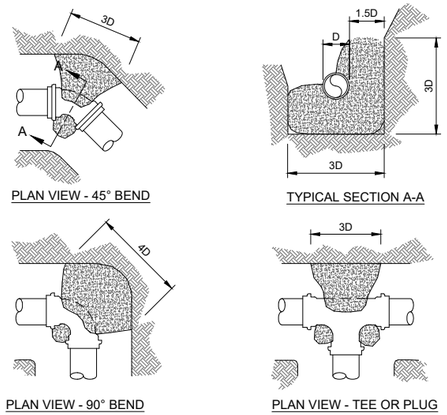
SHEET NO: **C702**



1 C703 TYPICAL PIPE SUPPORT THROUGH EXCAVATION

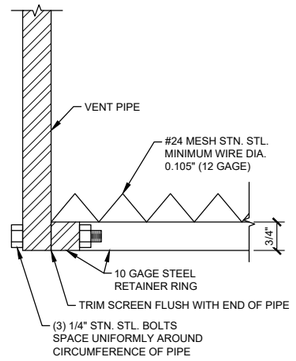
SCALE: NONE

DRAWING NAME



2 C703 CONCRETE THRUST BLOCK

NO SCALE



3 C703 VENT SCREEN DETAIL

SCALE: NONE

4 C703 DUAL BODY COMBINATION AIR VALVE DETAIL

SCALE: NONE

PVALV004

5 C703 SEWAGE AIR RELEASE VALVE DETAIL

SCALE: NONE

PVALV005

Plotted By: Paul Hohn Date: Friday, May 16, 2025

File: W:\Big Sky\13218-2020-001\CAD Dwgs\01-Civil\Plan Sheets\PS-DETAILS.dwg

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

Advanced Engineering and Environmental Services, LLC NOT FOR CONSTRUCTION PRELIMINARY

STATUS	SYM	DATE	APPR
60% DESIGN SUBMITTAL			

PROJECT TITLE:

BIG SKY CANYON AREA LIFT STATIONS, FORCEMAIN AND REUSE PIPELINE

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:

CIVIL DETAILS

CLIENT:
BIG SKY COUNTY WATER AND SEWER DISTRICT NO. 363
BIG SKY, MONTANA

PREPARED BY: PWH
CHECKED BY: ARW
APPROVED BY: KW

PROJECT NO: 13218-2020-001
DATE: MAY 2025
ALT. PROJECT NO:

SHEET DESIGNATOR: **SD**

SHEET NO: **C703**

EXHIBIT B

Gallatin Canyon Sewer Project

REQUEST FOR QUALIFICATIONS

PROJECT NAME: Gallatin Canyon Sewer

NOTICE TO CONTRACTORS
The Gallatin Canyon County Water & Sewer District (GCCWSD) in partnership with the Big Sky County Water & Sewer District (BSCWSD) (together herein referred to as Districts) are accepting Statements of Qualifications (SOQs) from entities (Contractors) interested in providing Construction Manager / General Contractor (CM/GC) services for the project identified below. Contractors are to submit SOQs by hand or electronically to WGM Group, Inc. (District Representative) via the Project Leader below.

The District Representative Project Leader throughout the CM/GC process will be:

Shane Strong, PE
WGM Group, Inc.
109 E Main St, Suite B, Bozeman, MT 59715
sstrong@wgmgroup.com
406-728-4611

SOQs are due no later than **11:00 a.m.**, local time on **July 23, 2025**.

Regardless of cause, late proposals will not be accepted and will automatically be disqualified from further consideration. It shall be solely the Contractor's responsibility to ensure electronic or hand delivery at the specified office by the specified time. Contractor may request the Districts delete late proposals. If no request is made, late proposals become the property of the Districts. All proposals submitted on time become the property of the Districts.

The costs for developing and delivering responses to this solicitation are entirely the responsibility of the Contractor. The Districts are not liable for any expense incurred by the Contractor in the preparation and presentation of this submittal.

The project is designated as an Adjusted Score CM/GC type qualifications based contract. The Districts will evaluate the relative ability of each Contractor to perform the required services based on SOQ information and past experience. (See the SOQ Submittal Requirements section of this document for selection criteria.) For this project, the Districts will short-list three (3) responsive Contractors. All Contractors will be contacted, and the results of the short-listing process will be forwarded to all proposers and shared on the GCCWSD website.

Short-listed Contractors will be provided a Request for Proposal (RFP) containing a detailed project description and a preliminary scope of work for Preconstruction Services and are requested to provide a

Technical Proposal for the project. The Total Technical Proposal Score determined by a Technical Review Committee representing the Districts will be used to identify the best value proposal. At the discretion of the Districts, an interview may be required with the interview score included as part of the overall Total Technical Proposal Score. Contractors will be solely responsible for all costs and expenses of any nature associated with responding to the RFQ and RFP, including attending required meeting(s) and providing supplemental information.

The successful Contractor will partner with the Districts, the engineering staff Consultants (WGM Group, Inc. & AE2S), and an Independent Cost Estimator (ICE) to develop the subject project. Discussions may also include representatives from applicable funding and/or regulatory agencies.

PROJECT DESCRIPTION

Schedule A:

The intent of this Schedule A is to construct a new sanitary sewer system to serve the new GCCWSD, generally extending along US Hwy 191 from the intersection of MT Hwy 64 south to Ophir School. This project includes preconstruction services and the option for construction services to construct this new sewer collection, conveyance, and disposal infrastructure in the Gallatin Canyon Area. The area of work is illustrated on **Attachment A** to include construction adjacent to MT Hwy 64 and US Hwy 191. This work may include but is not limited to sewer collection system, trunk sewer, reclaimed water distribution systems, infiltration gallery and spray irrigation type disposal systems, new sewer lift station(s) and existing lift station retrofit, grading, pavement repair, stream protection, and traffic management on local and state highways. Construction will occur along and within Montana Department of Transportation (MDT) ROW and to-be-acquired easements on private properties. Construction will be governed by Montana Public Works Standard Specifications (MPWSS), supplemented by BSCWSD Standard Specifications & Drawings, and by applicable MDT Specifications controlling portions of work within MDT's ROW. Additionally, the project is anticipated to require permitting through Montana Department of Environmental Quality (DEQ), MDT, US Forest Service (USFS), US Army Corps of Engineers (USACE), Montana Department of Natural Resources and Conservation (DNRC), among others.

Work along US Hwy 191 is more specifically described as follows:

- Design and construction of gravity trunk sewer, which may include +/- 17,000 LF of 8"-15" PVC SDR 35 sanitary sewer main and manholes, along with +/- 2,200 LF of 8" PVC or HDPE force main with combination air/vacuum valves and vaults. Installation of mains is anticipated to require Jack and Bored steel casing and Horizontal Directional Drilling (HDD) trenchless methods for perpendicular crossings of the MDT ROW, trench dewatering systems in areas of high groundwater (approximately half of the trenched pipe), and dry utility relocation. Collection main installation will also require multiple connections to existing systems.
- Design and construction of new packaged low-pressure sewer lift station including telemetry controls as well as design and construction to retrofit an existing sewer lift station to meet operating conditions of the proposed redirected force main piping.
- Design and construction of reuse effluent force main, which may include +/- 26,000 LF of 6"-10" HDPE pipe, buried isolation valves, combination air/vacuum valve vaults, pressure reduction valve stations and/or booster pump stations, and control valve vaults with flow metering, solenoid valves, and telemetry controls. Control logic for valve operation is anticipated to be dependent on totalized daily flows and maintaining pressure differentials.

- Design and construction of underground infiltration galleries for subsurface treated effluent disposal. Infiltration galleries are anticipated to generally follow conventional drainfield installation including buried perforated laterals with infiltration chambers to distribute and dispose of treated effluent. The scale of underground disposal infrastructure for Phase I of the project is anticipated to require +150,000 gpd of capacity. It is also anticipated to include retrofitting existing community drainfields to be reused for treated effluent disposal.
- Design and construction of surface irrigation facilities for reuse of treated effluent. This is anticipated to include new service connections to existing irrigation infrastructure, new buried irrigation infrastructure in planned landscaping areas, and new buried irrigation infrastructure for use similar to agricultural operations – riser lines, etc. - for more temporary and mobile irrigation by the Districts via handlines on the ground surface.

Schedule B:
The primary sewer treatment and disposal goal of Schedule B requires pumping raw wastewater along MT Hwy 64 from the US Hwy 191 intersection up to the existing BSCWSD Water Resource Reclamation Facility (WRRF) influent infrastructure and returning the Class A-1 treated effluent to the Gallatin Canyon Area for various underground and surface applied disposal applications.

Work along MT Hwy 64 is more specifically described as follows:

- Design and construction of parallel sewer force main and reuse effluent main, which may include a combined +/- 18,000 LF of 8" and 10" DIPS HDPE pipe with combination air/vacuum valves and vaults. Installation of mains is anticipated to require Jack and Bored steel casing and/or Horizontal Directional Drilling (HDD) trenchless methods for multiple crossings of MT Hwy 64 and West Fork Gallatin River. Open trench dewatering systems are anticipated in areas of high groundwater (eastern end near river). Highway crossings may require casing pipe.
- Pipeline construction is anticipated to vary between single, shared trench and separate trenches with horizontal alignment offsets from 3' to 10'+, and shared trench installation may require an 18" minimum vertical separation between the bottom of the reuse main and top of the force main. Frost depth is 6.5' below grade. MT DEQ may require the two pipes to maintain a vertical separation in the shared trench portion of the project. The reuse main will be above the raw sewage force main and to maintain frost protection, the pipe may either require insulation board at depths shallower than 6.5' or very deep trenches (up to 10'+).
- Design and construction of two pump stations in series: 1) primary lift station (LS1) at the intersection of MT Hwy 64 and US Hwy 191 and 2) intermediate sewer lift station (LS2). Each lift station will have a bypass manhole, wet well, valve vault utility building, and flow meter vaults including telemetry controls. The two (2) reuse main vaults closest to the lift stations will be outfitted with pressure indicating transmitters and alarms. Lift stations are to be similar but are not identical due to the site-specific conditions that differ between the two locations.
- Design and construction of connections to the existing BSCWSD WRRF inlet siphon structure and effluent discharge structure, which may include modifications to these structures.
- Much of MT Hwy 64 construction will require control of construction operations within a tight footprint due to MDT's anticipated requirement to maintain two lanes of traffic at all times. This will require creative planning and management of trench excavation and fill materials.

If proposed parallel main construction along MT Hwy 64 cannot be permitted with MDT, the project's treatment will require pivoting to a new treatment plant in the Gallatin Canyon Area which will result in

the cancelation of Schedule B and an additional scope to design and construct a new packaged MBR wastewater treatment plant.

The following background information and preliminary scope of work items are anticipated for the proposed project. These are provided for information and not as required SOQ submittals.

PROJECT AREAS OF FOCUS

- *Safety:* Promote and maintain safety of the travelling public and project personnel throughout construction.
- *Mobility:* Minimize impacts to the travelling public and other stakeholders throughout construction.
- *Constructability:* Determine and advise on overall ability to construct and maintain all project systems. Contractor's confidence in project constructability will be paramount to project permitting with DEQ and MDT.
- *Permitting:* Overall project requires permitting with MDT, DEQ, and USFS. Additionally, various other agencies will review and permit project work associated with crossing of West Fork Gallatin River and isolated work across small "pocket" wetland areas along the project corridor. Project viability primarily hinges on MDT and USFS permitting along the MT Hwy 64 corridor.
- *Quality:* Construct a functional, high quality, and durable solution for sewer collection, treatment, and disposal with minimal complexity of operations and ample ability to access and maintain.
- *Environmental Compliance:* Comply with all environmental commitments, regulations, and permitting requirements.
- *Project Cost Controls:* Establish an accurate and timely method of reporting project spending to ensure the Districts will not exceed the established budget.
- *Project Schedule:* Develop and implement innovative solutions to target a potential fall 2026 start of construction date for any early work packages or an overall spring 2027 start date.
- *Communication and Coordination:* Develop a process for clearly communicating construction work to the key project stakeholders such as adjacent developers/contractors, utility companies, and the general public using the Districts' Public Involvement consultant.

PROJECT TEAM

The Project Team, as referenced herein, is composed of GCCWSD, BSCWSD, the selected engineering consultants WGM Group, Inc. and AE2S (Engineers), the ICE (not yet selected), the CM/GC (Contractor), and any additional project stakeholders as necessary. The Districts designate Shane Strong of WGM Group as Project Leader with responsibility to manage the successful design and construction of the proposed project.

PRECONSTRUCTION SERVICES

The Contractor, herein referred to as the Construction Manager (CM), will work as an integral part of the Project Team to develop, implement, and maintain a spirit of cooperation and open communication among parties. The intent is that project goals and objectives are clearly understood, potential problems are identified and resolved promptly, and upon completion, the project is deemed a success by all. The successful CM will provide preconstruction services by performing the following:

- Serve in a valuable support role to the Engineers and Districts during the design phase of the project. The Engineers are responsible for completion and stamping of all construction

documents. The CM will participate in all pre-construction design discussions, estimating, risk identification, innovation discussions, and schedule development.

- Evaluate the design as it is originally intended and compare it to the scope of work with both the required budget and schedule to determine if the scope can be executed within those constraints. A validated design is one that can be constructed within the budget and schedule constraints of the project.
- Perform design reviews to identify errors, omissions, and ambiguities with intent to improve the constructability and economy of the design submittal. As necessary, assist the Engineers with feasibility and options evaluations. Prepare cost/benefit input on potential options or alternatives. Provide input on potential alternatives for solutions to address the deficiencies and challenges with the existing project site.
- Analyze and evaluate the constructability of the preliminary design.
- Evaluate and identify existing utilities in conflict with proposed project design and assist in determining best means to resolve conflicts.
- Verify the quantities and schedule of values (Bid Items) generated by the Engineers for the estimate.
- Provide information, cost estimates, and alternative options to help facilitate decisions regarding existing conditions, construction impacts, and staging.
- Prepare production-based estimates at Rough Order of Magnitude (ROM) for current 60 percent and future 90 percent complete designs.
- Provide input to the Project Team regarding current construction industry practices, labor market, and material and equipment availability.
- Furnish the Engineers with alternative materials or equipment, along with current pricing data and availability, to assist in making informed design decisions early in the process. The intent of this information sharing is to reduce the need to change the design late in project development, resulting from budget or schedule considerations.
- Provide assistance in shaping the scope of work to ensure that the work conforms to the budget and schedule constraints.
- Perform feasibility investigations on potential options or construction approaches, as requested.
- Use subcontractors, as needed, to supplement preconstruction services to provide the necessary expertise.
- Play an integral part in identifying and providing risk mitigation strategies. Assist the Engineers, ICE and Districts with risk identification, pricing, mitigation strategies, and how risk will be assigned.
- Provide detailed construction schedules to execute construction, including potential early work packages.
- Review, validate, and/or propose alternative traffic staging and traffic control concepts for the project.
- Review environmental commitments/permits associated with the project and determine and/or identify feasibility of commitments/permits.
- Collaborate with ICE to establish an agreed approach to pricing.
- Attend and participate in discussions with MDT, resource agencies, and Districts' Board meetings, as appropriate.
- Provide a construction bid for early work packages, and/or at project design completion. Assuming that an acceptable bid(s) is received, and the Districts accept the bid, enter into a construction contract to build the project.

SOQ SUBMITTAL REQUIREMENTS

The legal entity (Contractor) desiring consideration for this project will submit seven (7) hard copies or one (1) electronic copy of their Statement of Qualifications (SOQ) not to exceed **ten** 8½ x 11 pages. Each page that contains text, graphics, drawings, or other illustrations is considered in the page limit. The transmittal letter, letters of commitment, proof of insurance, resumes, SOQ fronts/backs, and blank section dividers are not included in the page limit. The prime contractor or other key personnel cannot team with other partners to submit more than one SOQ per project. The Contractor and associated key personnel on a CM/GC team cannot change after award without the prior written approval of the Districts. Only one SOQ per Contractor is acceptable. Receipt of multiple SOQs from one Contractor will disqualify the Contractor.

The SOQ must, at a minimum, include information on each of the following:

1) Provide an SOQ transmittal letter that identifies the legal entity (business structure) authorized to render the CM/GC services. **Not included in the page limit. Submittal of this criterion will be considered Pass/Fail of the SOQ.**

2) Identify participating companies and business phone numbers, emails, and addresses of the Contractor members. Provide an organization chart relating to the project and include the names, titles, classifications, and experience (one-page resumes) of key personnel, which includes the overall Project Manager, Construction Superintendent, Project Estimator, and Quality Manager. The key personnel on a CM/GC team cannot change after submittal of the SOQ without prior written approval of the Districts. Provide proof of insurance. **Page limit is two pages. (Resumes and proof of insurance are not included in the page limit). Response to this criterion accounts for 40% of the overall SOQ score.**

3) Provide a list of active and/or recently completed projects similar in nature to this project that have been completed in the past ten years. Include start and completion dates or anticipated completion dates, budget, owner, name and telephone number of owner's project representative, and names of Contractor's key project team members that performed construction management activities. Experience may be drawn from projects contracted with state DOTs, private industry, or local governments. Include with this list any experiences or challenging situations that arose during the projects, and resultant solutions that showcase a collaborative team effort to complete the project. If applicable, include and describe how the projects were delivered using alternative contracting methods. CM/GC experience is not required to make the Short List. **Page limit is three pages. Response to this criterion accounts for 20% of the overall SOQ score.**

4) Include a narrative of the Contractor's understanding and approach to how the CM/GC process and the Contractor's organization will contribute to the success of the project and meet the Districts' project goals. In addition, provide a description of the Contractor's understanding of the risk sharing and the teaming relationship between the Construction Manager, the Engineers, the ICE, and the Districts. Outline potential innovations in design, materials, and construction means and methods anticipated for the project. Briefly describe any project issues identified and outline proposed resolutions by the Contractor. **Page limit is five pages. Response to this criterion accounts for 40% of the overall SOQ score.**

PROJECT BUDGET: $50 Million

PERCENTAGE OF WORK REQUIREMENTS
The Proposer must perform the CM/GC services work valued at not less than 30% of the overall contract value with its own staff, excluding specialized services.

TECHNICAL QUESTIONS
All questions are to be submitted in writing to the Project Leader, Shane Strong, at sstrong@wgmgroup.com. Questions will then be posted with answers or clarifications on the following link to the "Question and Answer Site" (see RFQ announcement): https://www.gallatincanyonwsd.com/rfp

Questions must be submitted at least 48 hours before the SOQ is due. The Project Leader will provide an answer posted on the same "Question and Answer Site." Every effort will be made to post the answer within 24 work hours after the question is submitted.

From the date this solicitation is issued until the selection is finalized, proposers are not allowed to communicate with any herein described Districts' staff, Engineers, ICE, public relations staff, or officials regarding this solicitation, except through the "Question and Answer Site". If unauthorized contact is made and the Districts determine the context of the contact gives the proposer an unfair advantage, the proposer will be disqualified from the solicitation.

INSURANCE REQUIREMENTS
Contractors must provide insurance certifications, either a certificate of insurance evidencing current policies, or written evidence from an insurance company or broker indicating that the Contractor is capable of obtaining the following types of insurance: Commercial General Liability, Professional liability, Auto Liability, and Workers' Compensation / Employer's Liability. General liability limits must be no less than $1,000,000 per occurrence and $2,000,000 in the aggregate. Auto liability limit must be no less than $2,000,000, combined single limit for each occurrence for bodily injury and death, or property damage.

In addition, the selected Contractor will be required to indemnify the Districts, Districts' Engineers, and ICE with respect to claims arising out of the construction contract.

BONDING REQUIREMENTS
Contractors must attach a notarized statement from an admitted surety insurer authorized to issue bonds in the State of Montana that states:

- Contractor's current bonding capacity is sufficient for the project and referenced payment and performance bonds; and
- Contractor's current available bonding capacity

The selected Contractor will be required to submit payment and performance bonds upon execution of a construction contract (Guaranteed Maximum Price (GMP)), each in the amount of 100 percent of the contract price. Contractors will be required to demonstrate their capacity to obtain the required bonds.

TENTATIVE SCHEDULE OF EVENTS

RFQ Advertisement:	**June 27, 2025**
SOQ Response Due:	**July 23, 2025**
Short List Issued:	**July 31, 2025**
RFP Issued:	**August 1, 2025**
Technical Proposal Due:	**August 29, 2025**
Technical Proposal Scored (written):	**September 5, 2025**
Technical Interview (if necessary):	**September 8-12, 2025**
Final Selection:	**September 17, 2025**
Notice To Proceed:	**September 19, 2025**

FUNDING & SPECIAL PROVISIONS

The construction project is anticipated to be funded by a combination of federal and state grant and loan programs as well as local tax authorities. The funding agencies are anticipated to require contract special provisions for Montana Public Facility projects including but not limited to minimum wage requirements (Davis-Bacon or MT Prevailing Wage, whichever is greater), MBE & WBE solicitation and percentage goals, debarment and non-collusion certification, and BABA requirements. The draft SRF special provisions are included for general reference in **Attachment B**. These SRF special provisions may be subject to change throughout the design process in coordination with funding agencies.

Construction special provisions will also be required to include MDT specifications to control materials and work within MDT ROW. These MDT specifications are anticipated to primarily supersede MPWSS specifications governing traffic control requirements, miscellaneous removal and replacement of signs, fences, culvert ends, and other structures in conflict with construction, surface restoration and seeding, grading to maintain/improve preconstruction drainage patterns, paving materials, testing, and construction records.

DISADVANTAGED BUSINESS ENTERPRISES (DBE) GOAL

In accordance with 49 Code of Federal Regulations Part 26, the Districts do not have a proposed overall DBE goal. The Districts encourage the use of DBE-certified companies in accordance with the SRF special provisions. The Subcontractor Report must be completed and submitted with any Early Work Package GMP and/or overall Project GMP, per the requirements described in **Attachment B**.

The Districts will not discriminate on the basis of race, color, national origin or sex in the award, performance or administration of any contract or in the administration of its DBE program (49 CFR Part 26). The Districts attempt to provide reasonable accommodations for any known disability that may interfere with a person participating in any service, program or activity of the District. Alternate accessible formats of this document will be provided upon request. If reasonable accommodation is needed, call Project Leader Shane Strong at 406-728-4611. Accommodation requests must be made at least 48 hours prior to any meeting or deadline.

GENERAL

This project is under the jurisdiction of DEQ for engineering review and approval of overall project design. Much of the project will occupy MDT ROW as well as a portion of USFS property, which will require

acceptance and occupancy permitting by both agencies, and construction will have to comply with their permitting requirements.

This project will follow the MDT CMGC Guidance Document, Version 3, December 2023 with Amendments adopted by the Districts. Refer to **Attachment C** for the amendment document.

The BSCWSD & GCCWSD are considered a joint entity for the purpose of this project and as established by an executed Interlocal Agreement.

CONTRACTOR REGISTRATION

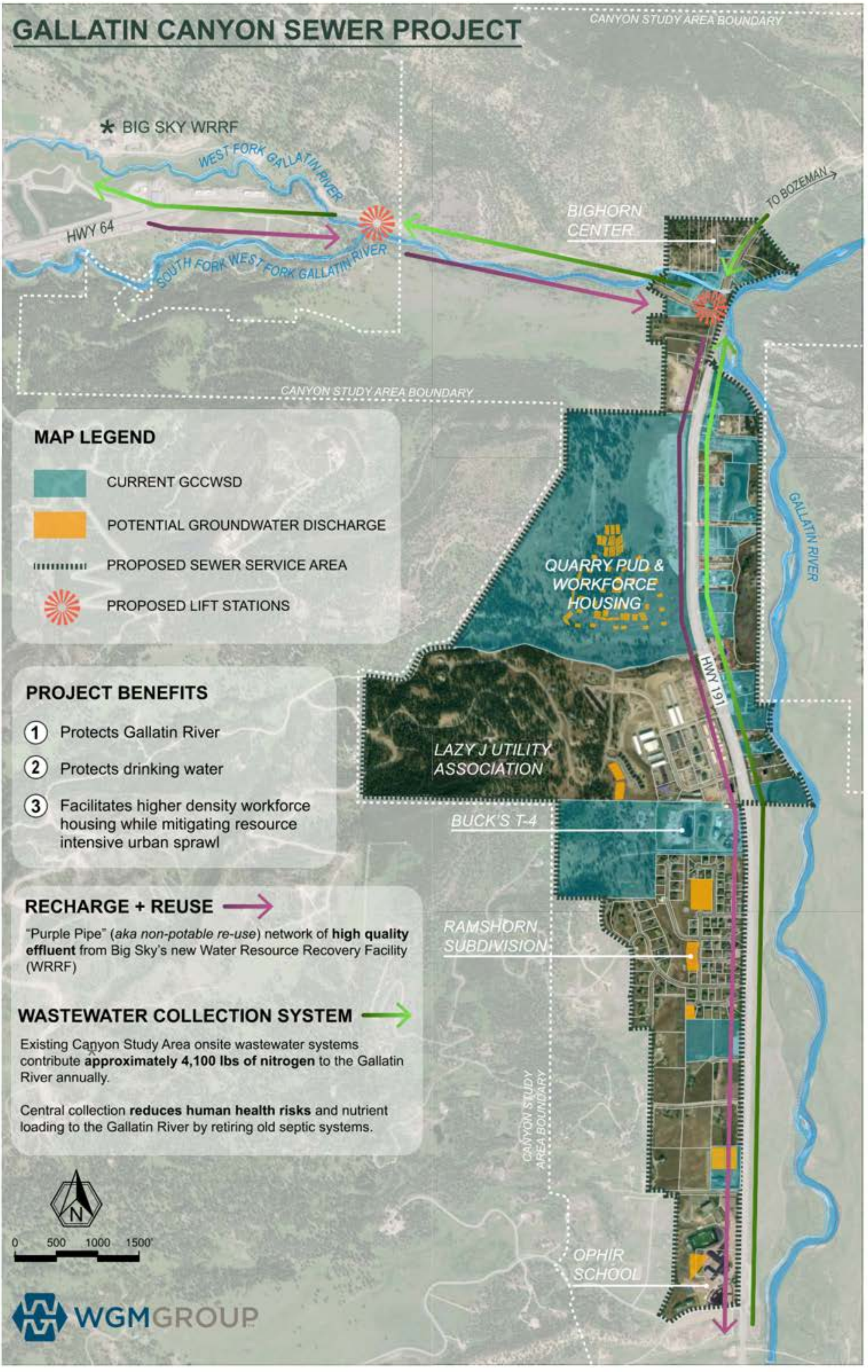
Montana law requires all contractors to register with the Montana Department of Labor. The Districts will not contract with any debarred companies. On Federal Aid projects, contractors must register prior to executing a contract and comply with all Federal requirements. For information regarding this requirement, contact the Department of Labor at 1-406-444-7734 or TTY 1-406-444-5549.

ATTACHMENTS

A. General Project Overview Exhibit
B. DRAFT SRF Special Provisions
C. Project Amendments to MDT CM/GC Guidance Document

ATTACHMENT A – General Project Overview Exhibit

GALLATIN CANYON SEWER PROJECT



MAP LEGEND

- CURRENT GCCWSD
- POTENTIAL GROUNDWATER DISCHARGE
- PROPOSED SEWER SERVICE AREA
- PROPOSED LIFT STATIONS

PROJECT BENEFITS

1. Protects Gallatin River
2. Protects drinking water
3. Facilitates higher density workforce housing while mitigating resource intensive urban sprawl

RECHARGE + REUSE →

"Purple Pipe" (*aka non-potable re-use*) network of **high quality effluent** from Big Sky's new Water Resource Recovery Facility (WRRF)

WASTEWATER COLLECTION SYSTEM →

Existing Canyon Study Area onsite wastewater systems contribute **approximately 4,100 lbs of nitrogen** to the Gallatin River annually.

Central collection **reduces human health risks** and nutrient loading to the Gallatin River by retiring old septic systems.

N

0 500 1000 1500'

WGMGROUP