CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	**Blackfeet Gulch Railroad Project**
Proposed Implementation Date:	October 2015
Proponent:	Burlington Northern Santa Fe Railroad & Shumaker Trucking & Excavating, Inc.
Location:	Section 36, T22N, R4E
County:	Cascade
Trust:	Common Schools

I. TYPE AND PURPOSE OF ACTION

Burlington Northern Santa Fe Railroad Company (BNSF) & Shumaker Trucking & Excavation, Inc. have requested to remove borrow material, to construct an extension to an existing culvert, and to repair a slide on the railroad bed. BNSF & Shumaker Trucking & Excavation, Inc. have applied for the following: a permit to take and remove aggregate from state land (to remove borrow material), a Land Use License (to perform the necessary construction work), and an easement (to encumber state land with the culvert extension). Due to the weakness in the railroad grade, which was caused by a major slide of the soil material, the situation is urgent. The affected area would be approximately 5 acres of native rangeland, and would resolve safety and railroad bed integrity issues for BNSF.

Exhibits attached to this EA checklist:

1.) ***Exhibit A- Vicinity Map***
2.) ***Exhibit B- Aerial Photo of Borrow Area***
3.) ***Exhibit C- Aerial Photo of entire Project Area***
4.) ***Exhibit D- Survey Map of slide area***
5.) ***Exhibit E-Sketch depicting ROW culvert extension***
6.) ***Exhibit F- Topographical Map of Archaeological Resource Sites***
7.) ***Exhibit G- Aerial Photo of Archaeological Resource Sites***
8.) ***Exhibit H- Project Plan Map including Archaeological Resource Sites***

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

Agencies, Groups or Individuals Scoped:	Response:
DNRC, Landowner	Neutral
BNSF & Shumaker Trucking	Proponents are in favor of the project
Walter Gruel & Son INC	Surface lessee is neutral-received and returned "Settlement of Damages" form

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Department of Environmental Quality (DEQ) requires an Opencut Mining Permit and which also requires proper reclamation is completed. DNRC is unaware of any other necessary permits.

3. ALTERNATIVES CONSIDERED:

Proposed Alternative: Authorize BNSF & Shumaker Trucking to complete the Blackfeet Gulch Railroad Project by issuing an Aggregate Permit, Land Use License and ROW Easement in order to construct a culvert extension and remove approximately 100,000 cubic yards of borrow material in order to repair the railroad infrastructure across Blackfeet Gulch.

No Action Alternative: Deny BNSF & Shumaker Trucking authorization to complete the project by not issuing an Aggregate Permit, Land Use License and ROW Easement in order to construct a culvert extension and remove approximately 100,000 cubic yards of borrow material in order to repair the railroad infrastructure across Blackfeet Gulch.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The soils are silty and the land is used for grazing. The top 18" of topsoil would be stripped and stockpiled in the proposed project area, prior to removing the borrow material. Once the mining activities are completed, the topsoil will be evenly applied over the proposed project area.

Proposed Alternative- No direct or cumulative impacts to the geology or soil quality are anticipated as a result of the proposed action.

No Action Alternative-No direct or cumulative impacts will occur without the mining and repair activities.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

The project area does not contain any water resources. Seasonal precipitation run off events do occur in the coulees and gulches regarding project area. The project will alleviate erosion issues impacting the integrity of the railroad right-of-way that occur during these events.

Proposed Alternative- No direct or cumulative impacts to water quality are anticipated as a result of the proposed action.

No Action Alternative-No direct or cumulative impacts will occur without the mining and repair activities.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

In general, this area is considered to be of high quality air standards with good ventilation. Borrow mining and construction activities may temporarily degrade air quality while this operation takes place. As the mining and construction activities are completed, air quality will quickly restore itself to a high standard.

Proposed Alternative: No direct or cumulative effects are expected to occur to air quality as a result of the proposed action.

No Action Alternative: No impacts to air quality will occur.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

There are no known rare plants or cover types present. The Montana Natural Heritage Program lists no plant species of concern or potential species of concern within the township. This project area is classified grazing land.

Proposed Alternative- Temporary disturbances to plant communities located within the proposed project area would occur. Vegetative communities would not be permanently altered. No impacts to rare plants or cover types are anticipated. The land will be reclaimed with native grasses once the mining activities are completed.

No Action Alternative-No direct or cumulative impacts will occur without the mining and repair activities.

---

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

This tract is used by a variety of wildlife, including large ungulates (mule deer, whitetail deer, and pronghorn), small to large sized predators (weasels, skunks, red fox, and coyotes), numerous species of small mammals (mice, voles, ground squirrels, rabbits, etc.), various raptors (red-tailed hawks, golden eagles, American kestrels, prairie falcons, etc.) upland game birds (sharptail grouse, Hungarian partridge, and pheasants), waterfowl, and numerous non-game bird species (a wide variety of migrant and resident bird species associated with available habitats). The construction and mining activities would temporarily displace these wildlife species.

Proposed Alternative- The mining and construction activities would temporarily disturb habitats during the implementation of the project. No lasting impacts to terrestrial, avian, and/or aquatic life and/or habitats are anticipated.

No Action Alternative: No impacts to terrestrial, avian, and/or aquatic life and habitats will occur.

---

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

The Montana Natural Heritage Program lists 16 animal *species of concern*, 0 *potential species of concern*, and 1 *special status species* within this township.

Species of Concern
16 Species
Filtered by the following criteria:
Township = 22 N Range = 4 E (based on mapped Species Occurrences)

BIRDS (AVES) — **16 SPECIES**
FILTERED BY THE FOLLOWING CRITERIA:
TOWNSHIP = 22 N RANGE = 4 E (BASED ON MAPPED SPECIES OCCURRENCES)

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Ammodramus bairdii Baird's Sparrow	**Emberizidae** Sparrows	G4	S3B			SENSITIVE	SGCN3	27%	67%	Grasslands
		Species Occurrences verified in these Counties: Blaine, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Fallon, Fergus, Glacier, Hill, Judith Basin, Lewis and Clark, Liberty, Mccone, Meagher, Musselshell, Petroleum, Phillips, Powder River, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone **State Rank Reason:** Montana populations were declining until recently and the species is declining in most of the surrounding states and provinces.								
Anthus spragueii Sprague's Pipit	**Motacillidae** Pipits	G4	S3B	C		SENSITIVE	SGCN3	18%	67%	Grasslands
		Species Occurrences verified in these Counties: Blaine, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Fallon, Fergus, Gallatin, Garfield, Glacier, Golden Valley, Hill, Judith Basin, Lewis and Clark, Liberty, Madison, Mccone, Meagher, Park, Petroleum, Phillips, Pondera, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Valley, Wheatland, Wibaux **State Rank Reason:** Although population trends in Montana appear to be relatively stable in recent years, populations have been in decline over the long run and the species faces threats from covertype conversion, overgrazing, exotic plant invasions, altered fire regimes, and mowing prior to fledging of young.								
Athene cunicularia Burrowing Owl	**Strigidae** Owls	G4	S3B		SENSITIVE	SENSITIVE	SGCN3	2%	82%	Grasslands
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Dawson, Fallon, Fergus, Gallatin, Garfield, Glacier, Golden Valley, Hill, Jefferson, Lewis and Clark, Liberty, Madison, Mccone, Musselshell, Petroleum, Phillips, Pondera, Powder River, Prairie, Roosevelt, Rosebud, Sheridan, Stillwater, Teton, Toole, Treasure, Valley, Wheatland, Yellowstone **State Rank Reason:** Species has a negative short-term population trend.								
Botaurus lentiginosus American Bittern	**Ardeidae** Bitterns / Egrets / Herons / Night-Herons	G4	S3B				SGCN3	4%	100%	Wetlands
		Species Occurrences verified in these Counties: Blaine, Carter, Cascade, Chouteau, Fergus, Flathead, Glacier, Golden Valley, Lake, Missoula, Phillips, Powell, Ravalli, Roosevelt, Sanders, Sheridan, Teton, Valley, Yellowstone								
Buteo regalis Ferruginous Hawk	**Accipitridae** Hawks / Kites / Eagles	G4	S3B			SENSITIVE	SGCN3	11%	95%	Sagebrush grassland
		Species Occurrences verified in these Counties: Beaverhead, Blaine, Broadwater, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Fallon, Fergus, Gallatin, Garfield, Glacier, Golden Valley, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Madison, Mccone, Meagher, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Prairie, Roosevelt, Rosebud, Sheridan, Stillwater, Teton, Toole, Valley, Wheatland, Yellowstone								
Calcarius ornatus Chestnut-collared Longspur	**Calcariidae** Longspurs and Snow Buntings	G5	S2B			SENSITIVE	SGCN2	32%	67%	Grasslands
		Species Occurrences verified in these Counties: Big Horn, Blaine, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Fallon, Fergus, Garfield, Glacier, Golden Valley, Hill, Lewis and Clark, Liberty, Mccone, Musselshell, Petroleum, Phillips, Powder River, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Valley, Wheatland, Wibaux, Yellowstone **State Rank Reason:** Species has a negative short-term population trend and faces threats from loss of native prairie grassland habitats and altered frequency, intensity, and spatial distribution of grazing and fire regimes it is dependent on.								
Chlidonias niger Black Tern	**Laridae** Gulls / Terns	G4	S3B			SENSITIVE	SGCN3	7%	100%	Wetlands
		Species Occurrences verified in these Counties: Blaine, Carter, Cascade, Chouteau, Daniels, Flathead, Glacier, Golden Valley, Lake, Madison, Missoula, Phillips, Pondera, Powell, Roosevelt, Sanders, Sheridan, Teton, Yellowstone **State Rank Reason:** Species has a small breeding population size and negative short-term population trends.								

Himantopus mexicanus Black-necked Stilt	**Recurvirostridae** Avocets	G5	S3B				SGCN3	1%	8%	Wetlands
		Species Occurrences verified in these Counties: Cascade, Chouteau, Gallatin, Golden Valley, Lake, Lewis and Clark, Phillips, Ravalli, Stillwater, Teton, Yellowstone								
Lanius ludovicianus Loggerhead Shrike	**Laniidae** Shrikes	G4	S3B			SENSITIVE	SGCN3	4%	100%	Shrubland
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Fallon, Fergus, Gallatin, Garfield, Glacier, Golden Valley, Hill, Jefferson, Liberty, Madison, Mccone, Meagher, Missoula, Musselshell, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Valley, Wheatland, Wibaux, Yellowstone								
Leucophaeus pipixcan Franklin's Gull	**Laridae** Gulls / Terns	G4G5	S3B			SENSITIVE	SGCN3	7%	48%	Wetlands
		Species Occurrences verified in these Counties: Beaverhead, Cascade, Chouteau, Phillips, Roosevelt, Sheridan, Teton								
Numenius americanus Long-billed Curlew	**Scolopacidae** Sandpipers	G5	S3B			SENSITIVE	SGCN3	19%	100%	Grasslands
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Madison, Mccone, Meagher, Missoula, Musselshell, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone								
Nycticorax nycticorax Black-crowned Night-Heron	**Ardeidae** Bitterns / Egrets / Herons / Night-Herons	G5	S3B			SENSITIVE	SGCN3	1%	45%	Wetlands
		Species Occurrences verified in these Counties: Beaverhead, Cascade, Chouteau, Deer Lodge, Phillips, Ravalli, Roosevelt, Sheridan, Teton								
Plegadis chihi White-faced Ibis	**Threskiornithidae** Ibises	G5	S3B			SENSITIVE	SGCN3	4%	45%	Wetlands
		Species Occurrences verified in these Counties: Beaverhead, Carter, Cascade, Chouteau, Phillips, Roosevelt, Sheridan, Teton								
Podiceps auritus Horned Grebe	**Podicipedidae** Grebes	G5	S3B				SGCN3	3%	77%	Wetlands
		Species Occurrences verified in these Counties: Cascade, Chouteau, Flathead, Lake, Lewis and Clark, Phillips, Powell, Sheridan, Teton								
Sterna forsteri Forster's Tern	**Laridae** Gulls / Terns	G5	S3B				SGCN3	1%	59%	Wetlands
		Species Occurrences verified in these Counties: Beaverhead, Blaine, Cascade, Chouteau, Hill, Lake, Lewis and Clark, Petroleum, Phillips, Powell, Roosevelt, Sheridan, Teton								
Sterna hirundo Common Tern	**Laridae** Gulls / Terns	G5	S3B				SGCN3	5%	50%	Large rivers, lakes
		Species Occurrences verified in these Counties: Blaine, Broadwater, Cascade, Chouteau, Daniels, Flathead, Hill, Lake, Mccone, Petroleum, Phillips, Roosevelt, Sheridan, Teton, Valley								

Potential Species of Concern
0 Species
Species Occurrences are not maintained for Animal PSOC, therefore we cannot filter these species geographically

Special Status Species
1 Species
Filtered by the following criteria:
Township = 22 N Range = 4 E (based on mapped Species Occurrences)

BIRDS (AVES) — **1 SPECIES**

FILTERED BY THE FOLLOWING CRITERIA:
TOWNSHIP = 22 N RANGE = 4 E (BASED ON MAPPED SPECIES OCCURRENCES)

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Calidris canutus Red Knot	**Scolopacidae** Sandpipers	G4	SNA	LT	THREATENED	SPECIAL STATUS		0%	0%	
		Species Occurrences verified in these Counties: Cascade, Chouteau, Phillips, Teton								

Citation for data on this website:
Montana Animal Species of Concern Report. Montana Natural Heritage Program and Montana Fish, Wildlife and Parks. Retrieved on 9/29/2015, from http://mtnhp.org/SpeciesOfConcern/?AorP=a

Proposed Alternative- At this time, none of the above unique, endangered, fragile or limited environmental resources have been identified within the proposed project area. Temporary disturbances may occur during the proposed project duration. No lasting impacts to unique, endangered, fragile, or limited environmental resources habitats are anticipated.

No Action Alternative- No impacts to unique, endangered, fragile, or limited environmental resources will occur.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

No historical and archaeological sites were observed in the project area. DNRC staff, including the department archaeologist, completed a field review of the project area on September 21, 2015. Stone circles and cairns, immediately to the east, were recorded previously and verified by the field visit. The Proponent will not operate outside of the flagged project area that has been identified by the proponent and verified by DNRC staff. This flagged area is indicated in Exhibit B. This action will protect existing historical and archaeological sites.

Proposed Alternative: No impacts to areas historical, archeological, and/or paleontological resources are anticipated.

No Action Alternative: No impacts to historical, archeological, and/or paleontological resources will occur.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

The landscape consists of steep and rolling hills used primarily for farming and ranching operations. Noise levels and dust would increase during the construction and mining operations; these impacts would cease as soon as the project is completed.

Proposed Alternative- The state land in this proposal does not provide any unique or scenic qualities. This proposed project will not be visible from any populated areas. No direct or cumulative effects to the aesthetics are anticipated.

No Action Alternative-No direct or cumulative impacts will occur without the mining and repair activities.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

The proposed project area represents a typical rural farming and ranching community found in this geographic area in Cascade County, Montana. The area does not contain limited resources.

Proposed Alternative- The demands on environmental resources such as land, water, air, or energy would not be affected by the proposed action. The proposed action will not consume resources that are limited in the area. There are no other projects in the area that will affect the proposed project.

No Action Alternative: No impacts to the demands of environmental resources such as land, water, air, and/or energy resources will occur.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

DNRC is not aware of other plans or projects in the area.

Proposed Alternative: No impacts to studies, plans, and/or projects pertinent to this area are anticipated to occur.

No Action Alternative: No impacts to studies, plans, and/or projects will occur.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

The proposed project would create human health and/or safety risks associated with the construction and mining activities required by the scope of the proposed project.

Proposed Alternative- Burlington Northern Santa Fe Railroad Company (BNSF) & Shumaker Trucking & Excavation, Inc. are responsible to identify and mitigate the risks associated with the proposed construction and mining activities. No impacts to human health or safety would occur as a result of the proposal.

No Action Alternative-No direct or cumulative impacts will occur without the mining and repair activities.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

Industrial, commercial and agricultural activities are at serious risk in the event the railroad infrastructure fails.

Proposed Alternative- Mining and construction activities would have minor inconveniences to the ranching operations. The proposed project area is about 5 acres and would not have any major impacts to the lessee's ranching operation.

No Action Alternative- Industrial, commercial and agricultural activities and production would be negatively impacted if the railroad infrastructure fails.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

The project would be completed in a relatively short time frame and would not create permanent jobs; however, it is possible temporary jobs would be available during the construction and mining period.

Proposed Alternative: No lasting impacts to quantity and distribution of employment are anticipated.

No Action Alternative: No impacts to quantity and distribution of employment will occur.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

Proposed Alternative: The project would not have any significant effects to local or state tax revenues.

No Action Alternative: No impacts to the state tax base and/or tax revenues will occur.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

Proposed Alternative: The proposal would not have any impacts on traffic or government services.

No Action Alternative: No impacts to traffic, road uses, or government services will occur.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

DNRC is not aware of other zoning or management plans in the area.

Proposed Alternative: No impacts to local environmental plans and goals are anticipated occur as the construction is in remote areas.

No Action Alternative: No impacts to local environmental plans and goals will occur.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

This state land has legal access from adjacent state lands to the east which are accessible from a county road. These tracts of state land generally have low recreational value. No wilderness areas are present in the project area.

Proposed Alternative-The proposed action is not expected to impact general recreational activities on this state land.

No Action Alternative-No direct or cumulative impacts will occur without the mining and repair activities.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

Proposed Alternative: The proposal does not include any changes to housing or developments. No direct or cumulative effects to population or housing are anticipated.

No Action Alternative: No impacts to the density and/or distribution of population and housing will occur.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

Proposed Alternative: No impacts to the areas social structures, native/traditional lifestyles, or communities are anticipated to occur.

No Action Alternative: No impacts social structures, native/traditional lifestyles, or communities will occur.

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

Proposed Alternative: No impacts to the areas cultural uniqueness and/or diversity are anticipated to occur.

No Action Alternative: No impacts to the areas cultural uniqueness and/or diversity will occur.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

The project would extract approximately 100,000 cubic yards of borrow material on 5 acres in order to repair the railroad crossing across Blackfeet Gulch. Also, the proposed borrow mining operation would increase the revenue to the Trust. The proposed action would provide the Common Schools Trust with an estimated return of $65,000. The implementation of this project would alleviate safety issues, costly repairs and loss of railroad business and productivity. Safety issues, costly repairs and loss of railroad business and productivity could be imminent without the repairs.

If the Proposed Alternative is selected, DNRC Helena Unit staff recommends the following conditions be outlined as required stipulations on the permit, license, and/or easement:

- The Proponent will not operate outside of the flagged project area that has been identified by the proponent and verified by DNRC staff. This action will protect existing historical and archaeological sites.
- The proponent will be required to avoid and protect all the identified historical and archaeological sites.
- If any disturbances occur to any of the identified archeological features, the proponent will be required to pay to mitigate the adverse effects.
- The Proponent shall strip and stockpile 18 inches of topsoil and subsoil for later use in reclamation.
- The Proponent shall provide the Central Land Office (CLO)-Helena Unit staff with a specific plan of construction to include haul roads.
- The Proponent shall reclaim all cuts to its natural contour.
- The Proponent shall replace all subsoil and topsoil removed, and install erosion control devices and techniques if deemed necessary by the CLO Field Staff.
- The Proponent shall reseed with the following seed mix:
    - 40% slender wheatgrass
    - 20% bluebunch wheatgrass
    - 20% green needlegrass
    - 15% western wheatgrass
    - 5% Lewis flax

- The proponent will drill seed disturbed areas at a rate of 12 lbs/acre of PLS.
- The Proponent shall monitor and control any noxious weed infestations for 3 years commencing in 2016.
- The Proponent shall request at least three inspections to be performed by DNRC Staff to ensure compliance with the aforementioned stipulations. The inspections will include the following:
  1. Inspection upon completion of the mining operations in addition to the culvert construction activities prior to the commencement of reclamation activities.
  2. Inspection by DNRC staff at the completion of reclamation activities.
  3. Noxious weed inspection by DNRC staff in September of 2018.

EA Checklist Prepared By:	**Name:**	Casey Kellogg	**Date:**	September 25, 2015
	Title:	Land Use Specialist		

V. FINDING

25. ALTERNATIVE SELECTED:

Proposed Alternative: Authorize BNSF & Shumaker Trucking to complete the Blackfeet Gulch Railroad Project by issuing an Aggregate Permit, Land Use License and ROW Easement in order to construct a culvert extension and remove approximately 100,000 cubic yards of borrow material in order to repair the railroad infrastructure across Blackfeet Gulch.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

As proposed, no lasting, detrimental, cumulative, environmental or social impacts will result from the action alternative. The implementation of the project will address the following items:

- Due to the weakness in the railroad grade, which was caused by a major slide of the soil material, the situation is urgent. Safety hazards for BNSF employees and possibly the public exist currently and must be mitigated.
- Substantial detrimental, economic consequences will impact BNSF and other entities without these repairs.
- The Common Schools Trust would realize an increase in revenues by permitting the mining and repair projects. The returns to the Common School Trust are projected to be approximately $65,000.

The recommended stipulations regarding reclamation and noxious weed control will appear in the Aggregate Permit and the Land Use License along with the ROW easement. Compliance with these stipulations will be monitored by Helena Unit Staff.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist Approved By:	**Name:**	Andy Burgoyne		
	Title:	Helena Unit Manager, Central Land Office		
Signature:			**Date:**	10/2/2015

Project Name:	**Blackfeet Gulch Railroad Project**
Proposed Implementation Date:	October 2015
Proponent:	Burlington Northern Santa Fe Railroad & Shumaker Trucking & Excavating, Inc
Location:	Section 36, T22N, R4E
County:	Cascade
Trust:	Common Schools

VICINITY MAP

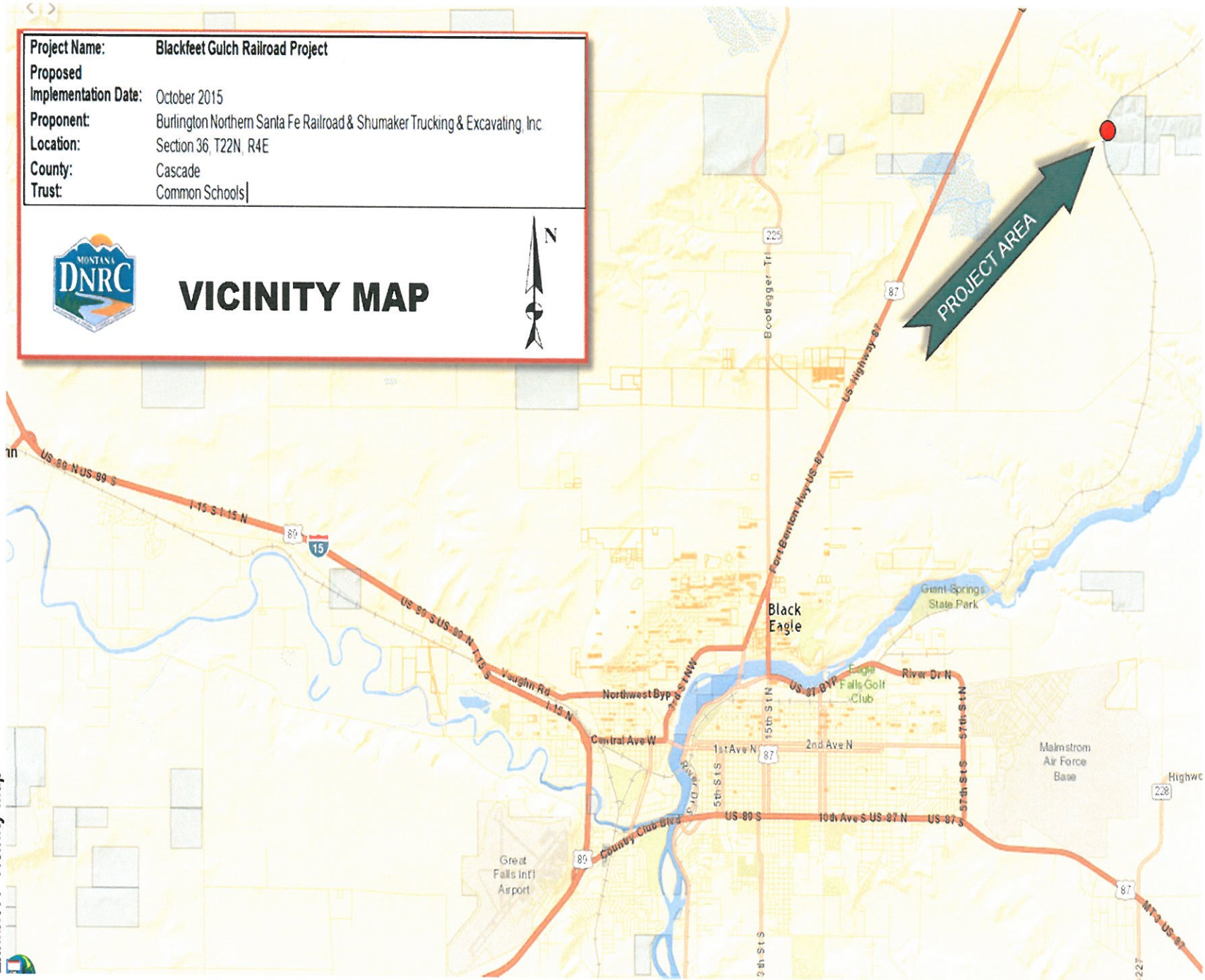
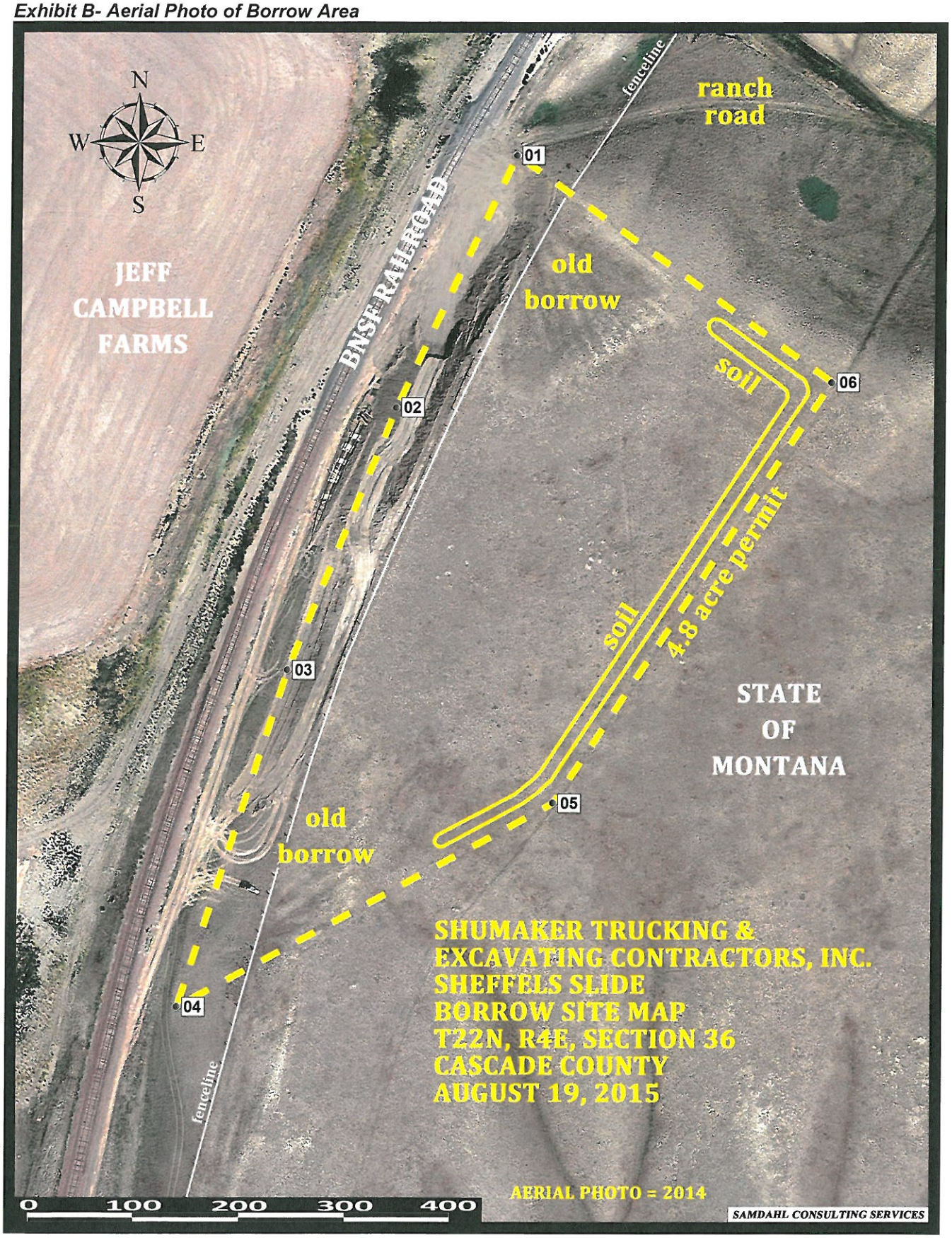


Exhibit A- Vicinity Map

Exhibit B- Aerial Photo of Borrow Area



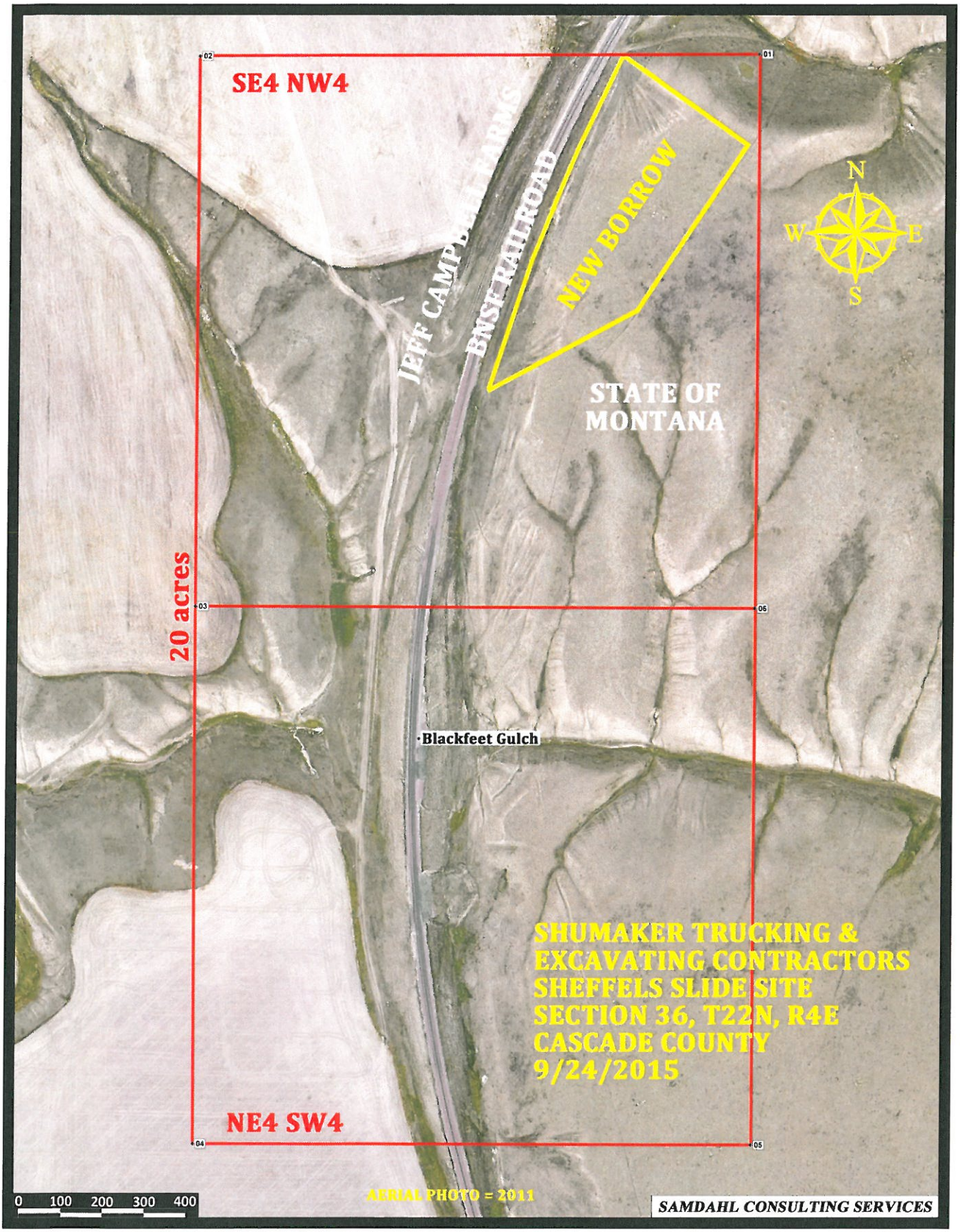


Exhibit C- Aerial Photo of entire Project Area

Exhibit D- Survey Map of slide area

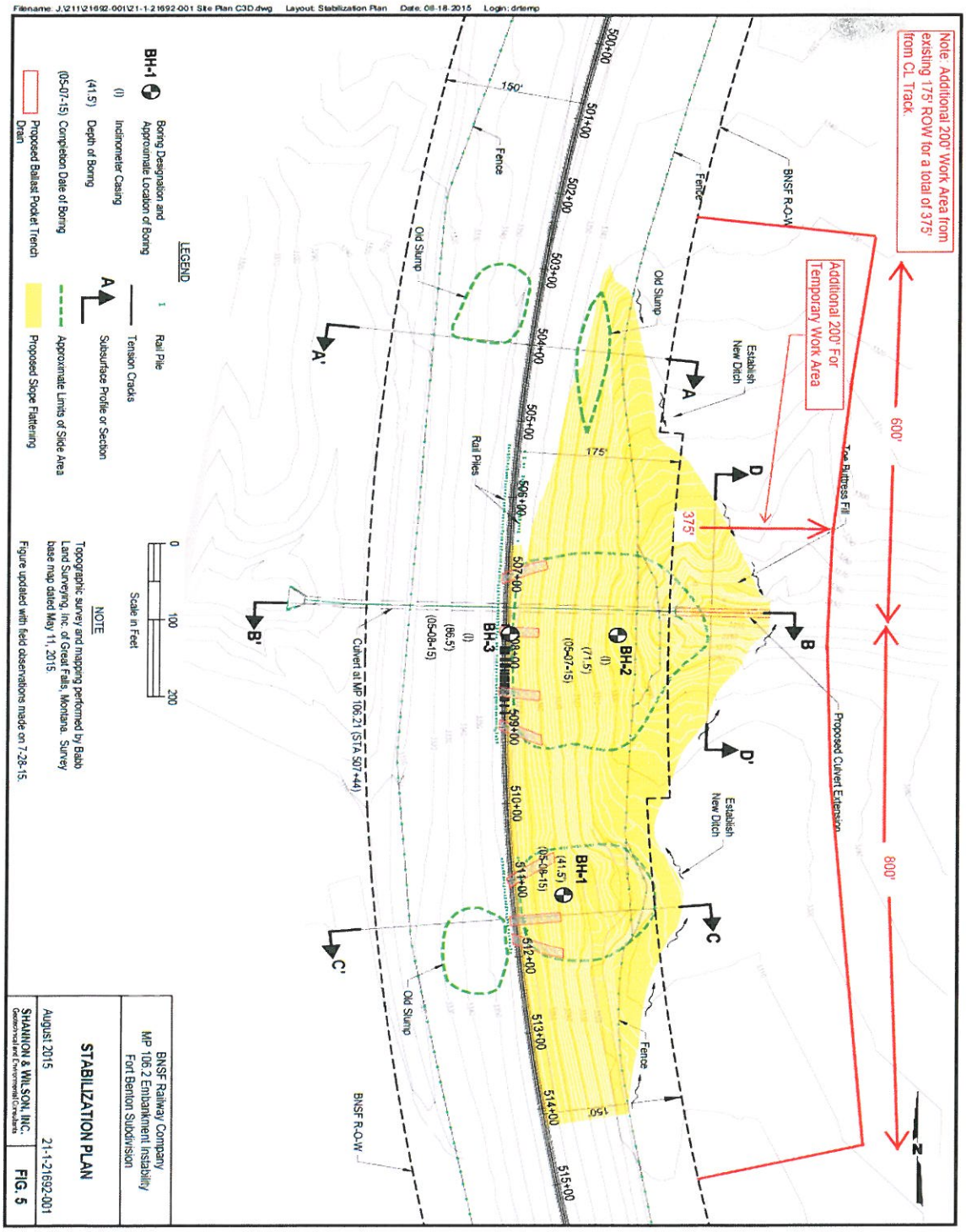
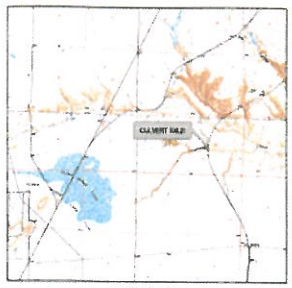
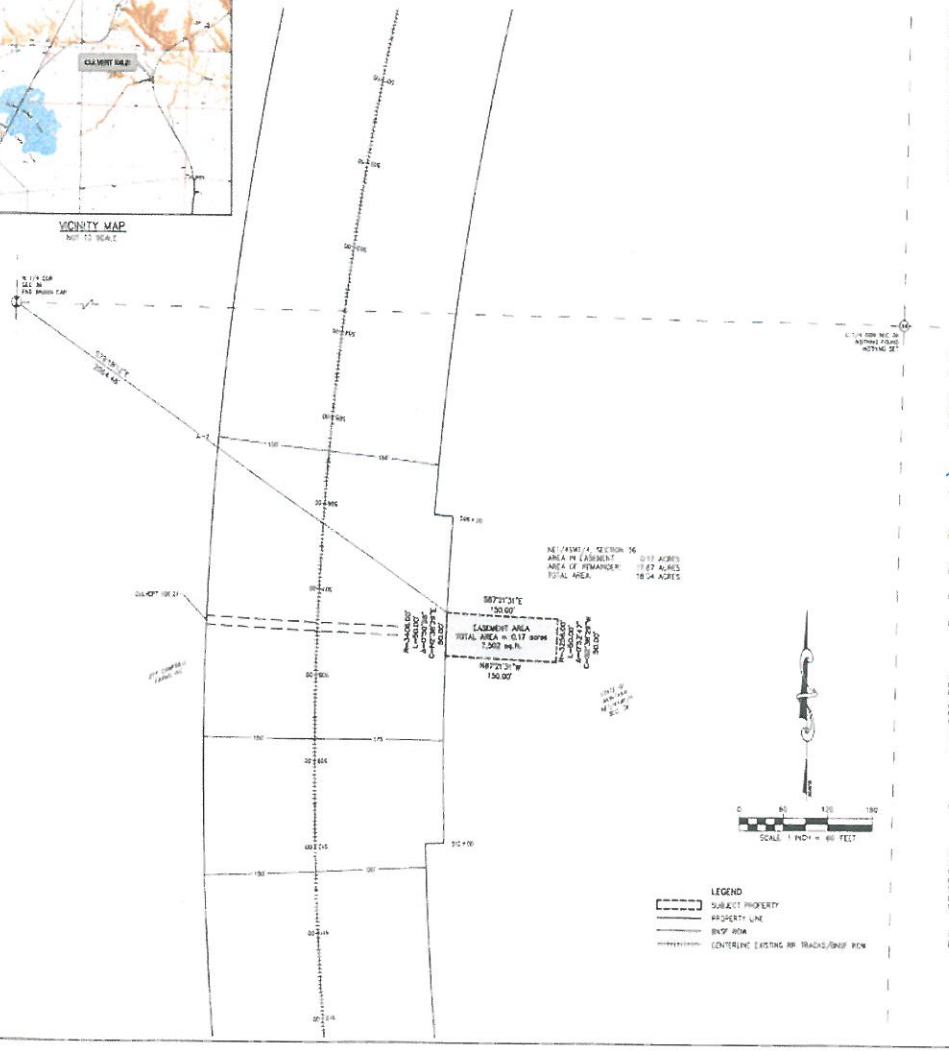


Exhibit E-Sketch depicting ROW culvert extension

SKETCH SHOWING THE EASEMENT AREA ACROSS STATE OF MONTANA LAND
LOCATED IN THE SOUTHWEST ONE-QUARTER OF SECTION 36,
TOWNSHIP 22 NORTH, RANGE 4 EAST, PRINCIPAL MERIDIAN MONTANA,
CASCADE COUNTY, MONTANA



VICINITY MAP
NOT TO SCALE



DESCRIPTION

A TRACT OF LAND LOCATED IN THE SOUTHWEST ONE-QUARTER OF SECTION 36, TOWNSHIP 22 NORTH, RANGE 4 EAST, PRINCIPAL MERIDIAN MONTANA, CASCADE COUNTY, MONTANA AND BEING FURTHER DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHEASTERLY RIGHT-OF WAY OF THE BURLINGTON NORTHERN SANTA FE RAILROAD, SAID POINT BEARS SOUTH 79°18'12" EAST A DISTANCE OF 2064.48 FEET FROM THE WEST ONE-QUARTER CORNER OF SAID SECTION 36, THENCE SOUTH 87°21'31" EAST, A DISTANCE OF 150.00 FEET, THENCE ALONG A 3256.00 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 00°52'47" FOR AN ARC LENGTH OF 50.00 FEET, WITH A CHORD BEARING AND DISTANCE OF SOUTH 02°38'29" WEST 50.00 FEET,
THENCE NORTH 87°21'31" WEST, A DISTANCE OF 150.00 FEET TO A POINT ON THE SAID SOUTHEASTERLY RIGHT-OF-WAY, THENCE ALONG SAID SOUTHEASTERLY RIGHT-OF-WAY ALONG A 3406.00 FOOT RADIUS NON-TANGENT CURVE, TO THE RIGHT THROUGH A CENTRAL ANGLE OF 00°50'28" FOR AN ARC LENGTH OF 50.00 FEET WITH A CHORD BEARING AND DISTANCE OF NORTH 02°38'29" EAST 50.00 FEET TO THE POINT OF BEGINNING
SAID EASEMENT AREA BEING 0.17 ACRES

MONTANA
GREGORY L FINCK
No. 11174LS
LICENSED
PROFESSIONAL LAND SURVEYOR
9/9/15

STATE OF MONTANA
County of Gallatin

Gregory L. Finck, being duly sworn, says: that he is the Professional Land Surveyor who made the survey of the right of way shown hereon; that the survey was correctly and accurately made; that the drawing thereon is true and accurate and that it correctly shows the quantity of land required for the right of way in each forty-acre tract or government lot and also the amount of land remaining in each portion of such forty-acre tract or government lot.

Gregory L Finck

Subscribed and sworn to before me this 9th day of September, 15

Notary Public for the State of Montana
Ken Olson
(Printed Name)
Residing at: Bozeman, Montana
My Commission Expires: May 7, 2019

KEN OLSON
NOTARY PUBLIC for the State of Montana
Residing at Bozeman, Montana
My Commission Expires May 07, 2019

BASIS OF BEARING COORDINATES
BEARINGS SHOWN ARE MONTANA STATE PLANE GRID
DISTANCES ARE GROUND DISTANCES IN INTERNATIONAL FEET

MONTANA COORDINATE SYSTEM NAD 83
HORIZONTAL DATUM: REFERENCED FROM NGS OPUS SOLUTION, ADJUSTED FROM NGS CORS
(Continuously Operating Reference System)
FB: 1234/1235
TIE TO NGS P 12 BOZEMAN CORS ARP
(D2422 POINT MONUMENTATION CORS ARP
D2422 POINT MONUMENTATION CORS ARP

MONTANA STATE PLANE NAD 83 (2011) (EPOCH 2002)
NORTH LATITUDE: 45°40'10.98"
WEST LONGITUDE: 108°28'31.84"
UNITS: INTERNATIONAL FEET
Convergence angle: -0°13'30.00"

VERTICAL DATUM: NAVD 88 UNITS: U.S. SURVEY FEET

UTILITY NOTE
THIS SURVEYOR HAS NOT LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THEREFORE, RELIANCE UPON THE TYPE, SIZE, AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED.

BOUNDARY NOTE
BOUNDARY LINES SHOWN ARE BASED ON FOUND MONUMENTS IN FIELD AS NOTED

Civil Engineering
Geotechnical Engineering
Land Surveying

SHEET 1 of 1

Exhibit F- Topographical Map of Archaeological Resource Sites

This map depicts the distribution of stone circles (green dots), cairns (red triangles), and an unidentifiable cluster of stone (yellow pentagon) documented on September 21, 2015.

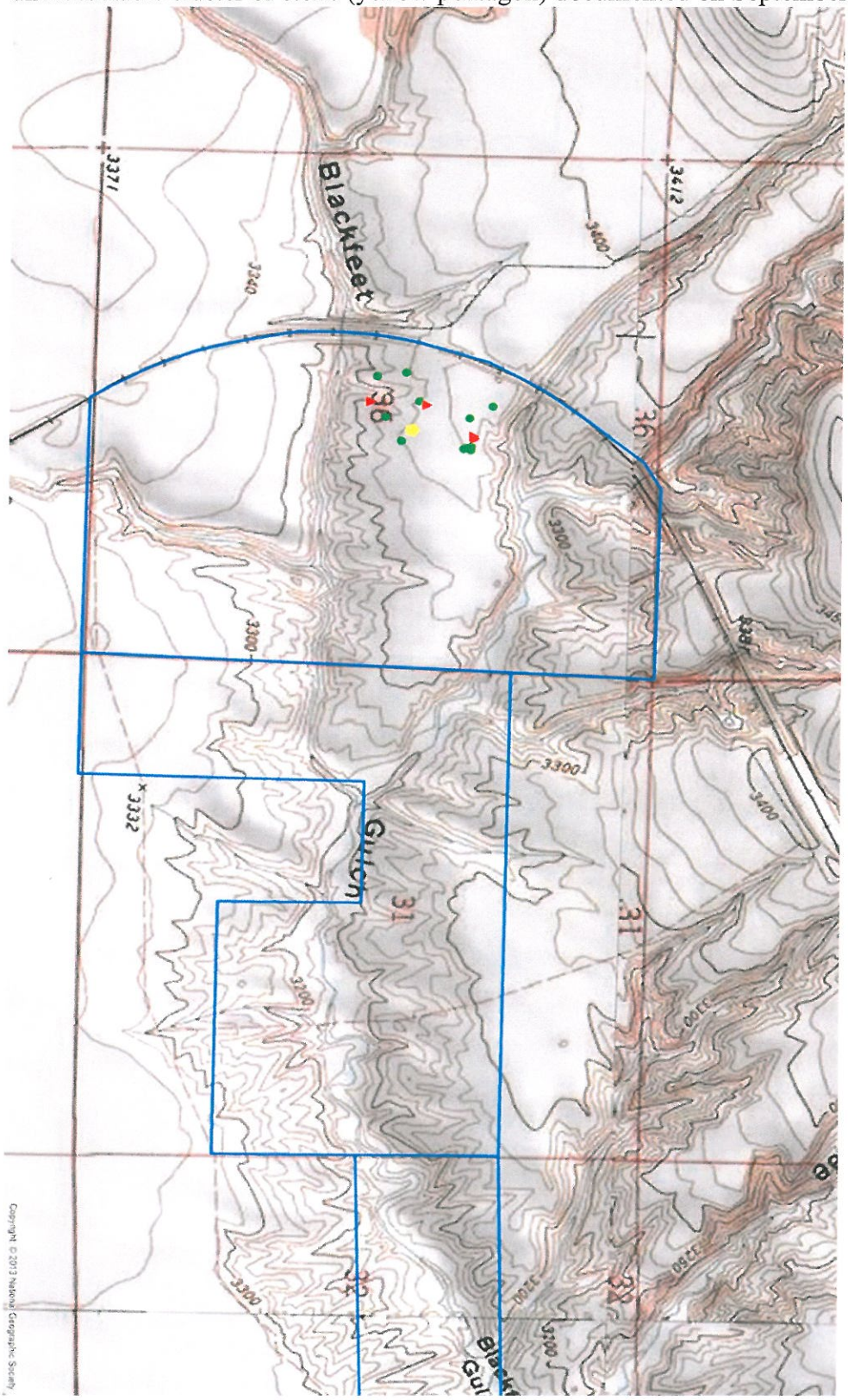


Exhibit G- Aerial Photo of Archaeological Resource Sites including the project area (in red).
This Photo depicts the distribution of stone circles (green dots), cairns (red triangles), and an unidentifiable cluster of stone (yellow pentagon) documented on September 21, 2015.

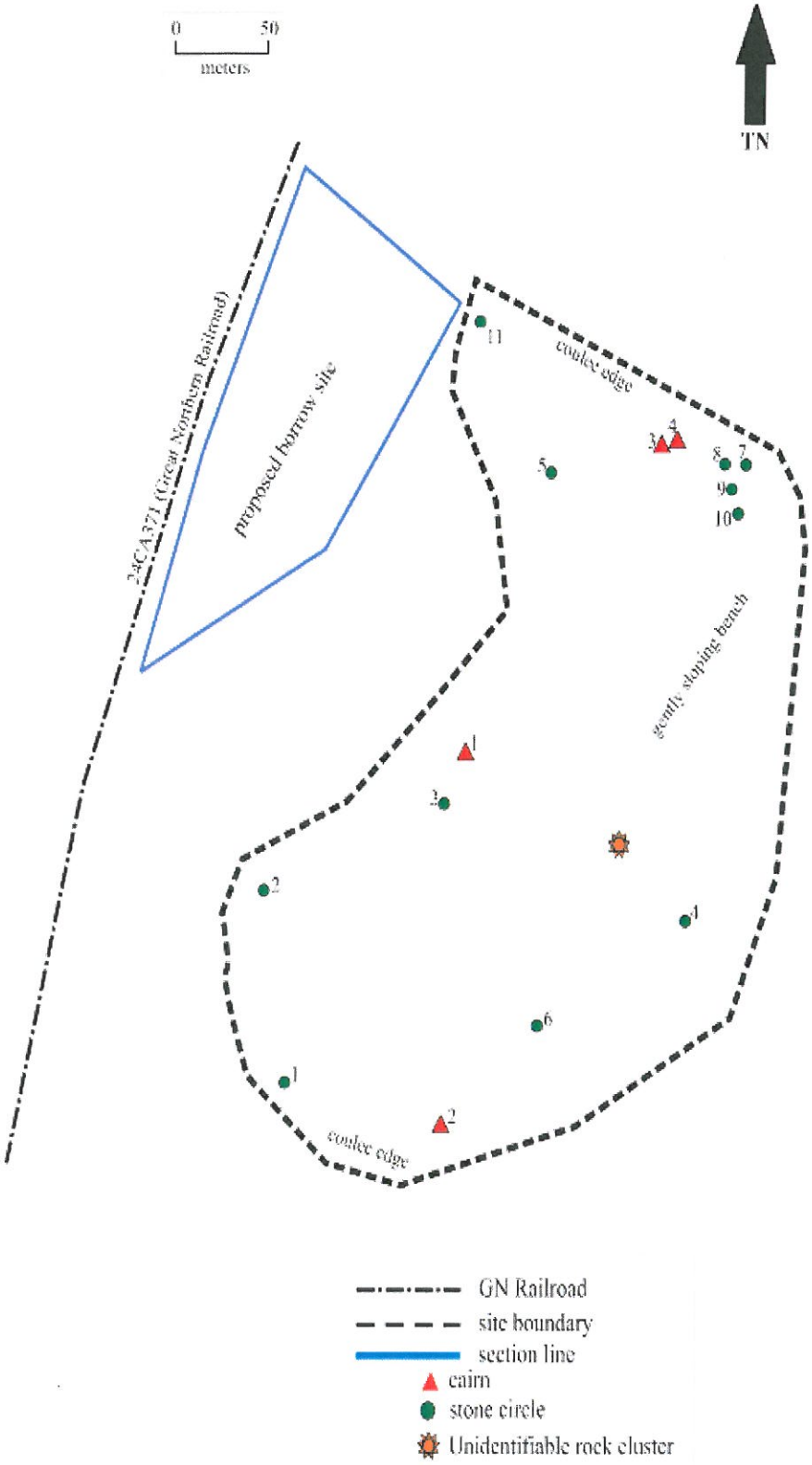



Exhibit H- Project Plan Map including Archaeological Resource Sites