

VALDEZ RURAL ROADS ASSESSMENT

PHASING PLAN AND COST ESTIMATES

PROJECT DEFINITION AND BACKGROUND

DOWL submitted a proposal to perform an assessment of select gravel roads owned by the City along with a few state and/or private roads within the city limits of Valdez in response to a Request for Qualifications (RFQ) issued on June 27, 2024. The City of Valdez accepted DOWL's proposal and the Notice to Proceed was issued August 20, 2024.

The road assessment fieldwork was performed between September 23 and 27, 2024. Each road segment was assigned a PASER rating for gravel roads and includes recommendations for improvement of the roadway surfaces and drainage issues.

The project definition and background are more specifically described in the attached memo titled "Valdez Rural Roads Assessment".

RURAL ROADS PROJECT PHASING PLAN

PHASE 1:

Corbin Creek Subdivision; Asphalt paving and drainage improvements.

Sawmill Drive, Mills Street, and 9th Street: Gravel surface and drainage repair.

Scope of work: Design work to begin summer of 2025. This includes design of asphalt pavement surfacing for Corbin Creek only, roadway surface grading/material design for all project areas, and drainage repair design for all areas. The project will go out to bid in January 2026, and construction would begin in May 2026.

Design cost estimate: \$107,817.00 (See attached DOWL cost proposal)

Construction cost estimate:

- Corbin Creek Base Bid (ditches, culvert, and gravel surface improvements) – \$3,500,000
- Corbin Creek add asphalt paving to Base Bid – \$1,100,000
- Corbin Creek Base Bid plus asphalt paving total -\$4,600,000

- Sawmill Drive, Mill Street and 9th (ditches, culvert, and gravel surface improvements) - \$2,300,000

COV IN-HOUSE RURAL ROADS PROJECT PHASING PLAN

Note: COV projects may go into design and out to bid for construction if funding becomes available.

PHASE 1:

10 mile or Alpine Woods Subdivision; The City of Valdez Public Works Department will start annual recommended maintenance on all roadways in this subdivision. Work will be completed in the summer of 2025 and 2026.

Scope of work: Remove unusable material on roadway surface and re-grade with material that meets the proper specifications. Make recommended improvements for drainage.

Cost estimate: \$80,000 is in the budget for this phase of the project.

PHASE 2:

Industrial neighborhoods and Airport Road; The City of Valdez Public Works Department will start annual recommended maintenance on all roadways in this project area. Work will be completed in the summer of 2027 and 2028.

Scope of work: Remove unusable material on roadway surface and re-grade with material that meets the proper specifications. Make recommended improvements for drainage.

Cost estimate: \$80,000 will be in the budget for this phase of the project.

PHASE 3:

Glacier Haul Road; The City of Valdez Public Works Department will start annual recommended maintenance on all roadways in this project area.

Non-residential roads; all remaining assessed roads maintained by the City of Valdez; The City of Valdez Public Works Department will start annual recommended maintenance on all roadways in this project area. Work will be completed in summer of 2029 and 2030.

Scope of work: Remove unusable material on roadway surface and re-grade with material that meets the proper specifications. Make recommended improvements for drainage.

Cost estimate: \$80,000 will be in the budget for this phase of the project.

More specific project details of the scope of work, recommendations, PASER ratings, previous cost estimates and project phasing map are included in the attached memo titled "Valdez Rural Roads Assessment".



MEMORANDUM

TO: Brad Sontag, City of Valdez Project Manager
FROM: Anna Ferntheil, P.E. and Elena Feghali, E.I.T.
THROUGH: Keri Nutter, CPG
DATE: March 27, 2025
PROJECT: Valdez Rural Roads Assessment
SUBJECT: Gravel Road Ratings and Recommendations

1.0 PROJECT DEFINITION AND BACKGROUND

1.1 SCOPE OF WORK

DOWL submitted a proposal to perform an assessment of select gravel roads owned by the City of Valdez (City) in response to a Request for Qualifications (RFQ) issued June 27, 2024. The City accepted DOWL's proposal and the Notice to Proceed was issued August 20, 2024. The gravel roads assessment included city-owned roads as outlined in the RFQ by the City of Valdez.

The road assessment fieldwork was performed between September 23 and 27, 2024. Two personnel from DOWL completed the gravel road assessment by walking the selected roads and assigning each road segment a rating using the gravel PASER rating system (Wisconsin Transportation Information Center, PASER Gravel Roads Manual). Roads were rated on both their current surface condition and the drainage conditions observed. The lower of the two values was assigned as the overall rating for the road, however both ratings were recorded for reference. Most of the roads were short enough to be assigned a single rating. Roads that were longer or had distinct differences were divided into sections that were rated separately.

The results of the assessment are presented in a graphic overview and in a detailed table format. The graphic overview consists of a project area map and detailed maps of each subdivision. These maps display each road's overall rating and recommended improvement section. The table of ratings, recommendations, and estimates contains observations of each roadway, drainage, and surface ratings, recommendations for improvements, and estimated costs for each road. The maps are presented in Appendix A, and the table is in Appendix B.

1.2 PASER RATING SYSTEM

The PASER grading system for gravel roads was developed by the Transportation Information Center at the University of Wisconsin - Madison. The PASER system provides criteria for assigning ratings and includes recommended actions based off the rating. The grading system rates both the observed surface conditions and the drainage effectiveness; as a surface may be observed after recent regrading and because proper drainage is critical to the long-term quality of a road, the rating system assigns one rating based on both conditions observed during the assessment. A road surface may appear to be in acceptable shape but receive a rating of 2 if the drainage is severely deficient. This standard grading system is summarized in Table 1.

Table 1: Summary of the Standard PASER Grading and Recommendations

PASER Gravel Rating	Visible Distress	General Recommendations
5, Excellent	None, excellent surface condition and drainage	No treatment required
4, Good	Moderate loose aggregate, slight wash boarding, good drainage	Regrade, minor ditch improvements
3, Fair	Good crown, ditches adequate on more than 50 percent of roadway, most culverts operational, surface course mostly adequate, moderate wash boarding (1 to 2 inches deep) up to 25 percent of road area, moderate dust, no or slight rutting (less than 1-inch deep), occasional small pothole (less than 2 inches deep), some loose aggregate.	Regrade, add surface course, muck ditches and culverts
2, Poor	Little or no observable crown, ditches adequate on less than 50 percent of roadway, culverts mostly occluded or collapsed, up to 25 percent of surface with no surface course, moderate to severe wash boarding (over 3 inches deep) over 25 percent of area, moderate rutting (14 inches deep) up to 25 percent of area, moderate potholes (2 to 4 inches deep) over up to 25 percent of area, severe loose aggregate.	Regrade up to 6 inches, add surface course, re-establish ditches, repair culverts
1, Failed	No observable crown, road may be concave, excessive ponding, little to no ditches, culverts inoperable, severe rutting (over 3 inches deep) over 25 percent of area, severe potholes (over 4 inches deep), over 25 percent of area, over 25 percent of areas without surface course.	Rebuild

1.2.1 PASER RATING SYSTEM LIMITATIONS

The conditions observed in Valdez caused the standard rating system to be inadequate for classifying roads and some engineering judgment was used to modify the grading system to the specific conditions observed. In general, the subgrade in Valdez is a well-draining gravel and issues associated with poor subgrade were not observed on the road system. Noted distresses were due to inadequate strength of the structural section, ineffective drainage and culverts, and a lack of surface course.

For this project, roads were given two initial scores; one for the surface as it was observed during the survey and one for the drainage quality. The road was assigned the lower of the two scores

for its overall score; for example, a road rated 1 for ditches but a 3 for driving surface and would be given a 1 overall. These scores are recorded in the table in Appendix B.

According to the PASER grading system, a road that has over 25 percent surface aggregate is rated a 2 and a road that is less than 25 percent aggregate is rated a 1 and an entire rebuild is recommended. Many of the roads in Valdez had significantly less than 25 percent observable surface aggregate and the wearing surface was the subbase, identified by a lack of 1-inch minus crushed aggregate and the presence of large, rounded aggregate at the surface. Most of these roads do not require a rebuild due to the subbase condition. The grading system was modified to treat this observed condition as a maintenance issue rather than a surface issue; for example, a road that has an otherwise smooth driving surface but did not have observable surface course was rated a 3.

Wash boarding is often a common defect in gravel roads and is a factor in the PASER grading system. Wash boarding was generally not observed on the project roads, and when observed, it was noted and typically present with other distresses that more greatly influenced the rating.

On several roads, bedrock was observed to daylight through the structural section. Bedrock is not desirable as a driving surface but is not part of the PASER grading system. These conditions were noted, and specific recommendations provided for those roads.

The grading as it applies to potholes was modified to more specifically describe the conditions observed as defined in Table 2.

Table 2: Summary of Modifications to Define Potholes

Minor	Up to 2 inches deep, isolated occurrence, under 2 feet in diameter, no observable aggregate segregation or spalling
Moderate	2 to 4 inches deep, up to 25 percent of driving area, 2 to 4 feet in diameter, observable aggregate segregation and spalling
Severe	Over 4 inches deep, over 25 percent of driving area, over 4 feet in diameter, may be combining together, severe aggregate segregation and spalling

Due to the unique conditions of Valdez, the grading system as it relates to surface conditions was modified to best reflect and compare roads that required similar treatments. The drainage rating system was not modified. Table 3 summarizes the modified grading with changes highlighted in yellow.

Table 3: Modified PASER Grading and Recommendations

Modified PASER Gravel Rating	Visible Distress	General Recommendations
5, Excellent	None, excellent surface condition and drainage, newly built road	No treatment required
4, Good	Moderate loose aggregate, slight wash boarding, good drainage on 25 percent or more of road, occasional isolated minor pothole	Regrade, minor ditching improvements

<p>3, Fair</p>	<p>Good crown, ditches adequate on more than 50 percent of roadway, most culverts operational, driving surface adequate but may not have observable surface course, moderate wash boarding (1 to 2 inches deep) up to 25 percent of road area, no or slight rutting (less than 1-inch deep), minor potholes, some loose aggregate.</p>	<p>Regrade, add surface course, muck and redefine ditches, repair/replace culverts as needed</p>
<p>2, Poor</p>	<p>Little or no observable crown, ditches adequate on less than 50 percent of roadway, culverts mostly occluded or collapsed, no observable surface course but subbase is generally providing acceptable driving surface, moderate to severe wash boarding (over 3 inches deep) over 25 percent of area, moderate rutting (1 to 3 inches deep) up to 25 percent of area, moderate potholes, severe loose aggregate.</p>	<p>Regrade up to 6 inches, add surface course, re-establish ditches, replace culverts</p>
<p>1, Failed</p>	<p>No observable crown, road may be concave, excessive ponding, little to no ditches, culverts inoperable, severe rutting (over 3 inches deep) over 25 percent of area, severe potholes, no surface course, and subbase is inadequate as a driving surface.</p>	<p>Rebuild</p>

1.2.2 FIELD WORK LIMITATIONS

The assessment was performed under rainy/wet conditions. The roads could not be evaluated for dust. However, through conversations with the Valdez Capital Facilities Director, it was indicated that dust is typically a problem during dry weather.

2.0 RECOMMENDATIONS

2.1 GENERAL OBSERVATIONS

Several recurring issues were noted on the roads assessed. For each of the issues identified, associated recommendations are included. It should be assumed that these general recommendations apply to all maintenance and reconstruction projects.

2.1.1 BERMS

Berms were observed on the side of the gravel roads. Most were 2 to 6 inches in height, but some roads had berms 12 inches in height with a few extreme locations that were approximately 18 inches in height. Berms are created as a result of ineffective grading practices. Berms of any height can trap water on the road and lead to unsatisfactory performance of the wearing surface. Additionally, berms indicate that the maintenance practices are removing the surface course from the driving surface and pushing it to the edge of the road. In addition to the creation of berms, this

causes the road to widen past its structural section over time and fills the ditches with excess graded material.

Berms prevent water from exiting the roadway and appropriately draining into the drainage system. Any maintenance project undertaken should include the removal of berms from the side of the roadway and the regrading of the road so that water freely flows off the road surface and into the ditches. Recommended grading practices that prevent the creation of berms can be found in Section 2.2.1.



Figure 1: Berms on left created during routine grading on Glacier Haul Road

2.1.2 CULVERTS

Increased distress, mostly in the form of moderate to severe potholes, were observed at multiple sites of culvert crossings. Where distress was the worst, culverts appeared to be under only 1 to 2 inches of soil. Culverts need a minimum coverage to be effective and maintain an adequate service life; this minimum coverage will vary based on the size and material of the culvert. Most of the culverts were 12- or 18-inch CMP; minimum coverage for these culverts should be 12 inches per State of Alaska Department of Transportation and Public Facilities (DOT&PF) Standards. For larger culverts, this coverage should be increased in accordance with DOT&PF Standards.



Figure 2: Intersection of Alder and Whispering Spruce - potholes and ponding above culvert (left) and remnants of crushed culvert (right)



Figure 3: Damaged culvert causing standing water in ditch on Mineral Creek Road

2.1.3 DITCHES

In general, ditches along the gravel roads observed were either non-existent or in a state of disrepair that rendered them useless. Water should be able to drain freely from the driving surface into the ditches. Ditches should be graded so that they do not hold water and so that water drains away from the road system. In general, ditches should be sufficiently deep to hold runoff, be graded so that water drains, have adequate culverts that are not damaged or blocked by debris, and be free of vegetation. Most ditches that were observed were filled with soil that prevented drainage and caused water to pond and were overgrown.



Figure 4: Well-maintained ditch on Childs Street



Figure 5: Existing overgrown ditch on Mendenhall Street



Figure 6: Lack of ditches causing standing water at N. Sawmill Dr./ Mill St. intersection

2.1.4 CROWN

Some roads assessed had an adequate crown, though many did not. A proper crown is necessary to prevent water from ponding in the middle of the road and for proper drainage into the ditches. Roads should be graded with an approximately 3 percent drop from the center of the road to its edge.



Figure 7: Defined crown on Nordic Drive



Figure 8: Potholes developing within the crown area on Cummings Way

2.1.5 LACK OF SURFACE COURSE

Most roads assessed had no notable surface course remaining on the wearing surface. On some roads, material that appeared to be from a surface course was seen in the berms created along the sides of the road, but the wearing surface contained mostly base course. This indicates that current maintenance practices are stripping the roads of the surface course.



Figure 9: Surface course graded off road into berm on Chalet Drive

2.1.6 INTERSECTIONS

In general, the driving surface at intersections showed more distress than the longitudinal surface of the road. This is due to various reasons including challenges grading the road appropriately at intersections and failed culverts under the roadways. If a road was in generally good condition with an intersection in poor condition. The road was scored to reflect the majority of its condition, and the intersection was noted for the defects separately. Intersections are called out in the Summary Table in Appendix B.

2.2 GENERAL RECOMMENDATIONS

The table in Appendix B provides specific maintenance recommendations for each road in the study. These recommendations are intended to reestablish the road to service standards with minimum reconstruction. Unless otherwise noted, the existing road surface is adequate as the base course. Additional base course is not anticipated to be needed unless noted in Appendix B. Each road includes specific drainage recommendations based on the conditions observed.

2.2.1 MAINTENANCE RECOMMENDATIONS

The maintenance methods currently used to grade the roads is creating various structural section problems. Observed complications of the current maintenance practices include stripping of the surface course, the creation of berms, and encroachment and eventual failure of the drainage system due to widening of the road creating unintended shoulders on unimproved subgrade.

During the fieldwork, DOWL personnel observed Glacier Haul Road being regraded. Graders were observed pushing the material out beyond the original limits of the road and adding to the existing berms. No intentional compaction of the regraded road was observed. The material that is pushed out first is the surface course, leaving behind only the base course as the driving surface. This causes faster degradation of the driving surface and increased dust.

It is recommended that maintenance practices are modified to prevent further accelerated loss of surface courses and creation of berms. When grading the roads, roads should first be graded inward, to create a windrow in the middle of the road. The windrow should then be graded outwards, taking care to keep the established crown of the road intact and grading only as far as the existing edge of road. Berms should not be created during routine maintenance. Last, loose material should be compacted immediately using a steel drum or pneumatic rubber tire roller to prevent the premature creation of ruts, segregation, and loss of fine material.

2.2.2 SURFACE TREATMENT

Roads with dust problems may be treated with a surface treatment to reduce airborne dust particles and prevent the loss of fines from the soil matrix. In general, a properly applied and compacted surface course will reduce the amount of fines available for transport in the air as dust and perform the best with a surface treatment, such as calcium chloride.

Calcium chloride is the most commonly used surface treatment in Alaska due to its general ease of application, effectiveness, lower relative cost, and environmental impact. Therefore, the continued use of calcium chloride is recommended. There are several reasons why the current treatment is not producing satisfactory results. The existing driving surface on most roads is an old base course, likely with a high fines content. Calcium chloride works best on material similar to a DOT&PF E-1 graded surface course, with the fines content ideally further restricted to 10 to 14 percent. Too few or too many fines will impact the performance negatively; a high fines content will cause the driving surface to become slippery when wet.

When applying the calcium chloride surface treatment, the following application practice should be conducted:

- Begin work with a wet surface from rain or truck application.
- Grade the road and compact. Ensure the road is still wet, add additional water if needed.
- Apply surface treatment using a high-quality spreader for even coverage.
- Wet road after application.

It is likely that a minimum of two treatments of Calcium Chloride applied in this way will be needed to adequately control dust throughout an average summer. When properly applied to an appropriately graded surface, calcium chloride treatment is expected to last for 100 to 150 days. If conditions are exceptionally dry, this treatment may need to be reapplied every 2 to 4 weeks for adequate dust control.

New proprietary treatments are available on the market that appear to be promising; however, many communities do not have the budget to switch treatments without confirmation of their long-term effectiveness. Typically, these treatments are polymers and synthetic fluids. If the City of Valdez decides to test a newer product, it is recommended that a product is selected that is designed to perform in a wetter climate, has a low environmental impact and few restrictions on placement near waterways, performs well on material with 8 to 15 percent fines (DOT&PF graded surface course, E-1), and is compatible with the average daily traffic count.

Other established surface treatments are not recommended due to incompatibility with the climate of Valdez (magnesium chloride), environmental concerns (bituminous or organic petroleum treatment), or reduced performance (organic polymers).

2.3 SUBDIVISION-SPECIFIC RECOMMENDATIONS

Several of the subdivisions were identified by the City to be a high priority for major road improvements. A standard maintenance recommendation is included in the table in Appendix B to bring the road back to an ideal driving surface. However, more involved options are included below.

2.3.1 ALPINE WOODS (10 MILE) AND CORBIN CREEK PAVEMENT ALTERNATIVE

Standard maintenance recommendations have been made for each road within these subdivisions and are included in Appendix B. DOWL understands that the Alpine Woods and Corbin Creek subdivisions are alternatively being considered for paving. Recommendations for a pavement alternative are also included in Appendix B and are based on typical section D in Appendix C. Typical section D is based on City of Valdez Standard Detail 20-1.

Roads within these subdivisions are in similar conditions and have similar recommendations except for Alder Way and Sealion Road as noted below. The current surface course appears to be an adequate subgrade for a paved structural section. Prior to paving, the existing driving surface should be scarified and compacted prior to placing additional material. 6-inches of base course and 2-inches of leveling course should be added below 2 inches of asphalt pavement. Material should be added in no more than 6-inch lifts, with each lift being compacted to a minimum of 95 percent of the material's maximum density.

The driving surface of Alder Way was abnormally wet and damaged at the time of the assessment. This road is likely constructed in a local low spot and may have shallow groundwater below. Prior to paving, the existing grade should be scarified 6 to 12 inches and recompacted. Using the typical City of Valdez detail 20-1, six inches of base course should be placed below a 2-inch leveling course and 2 inches of asphalt pavement. Care should be taken to adequately grade ditches so that water does not collect at the toe of the road embankment.

Sealion Road was severely potholed with potholes at least 4 inches deep. It is recommended that the road be scarified 6 to 12 inches and recompacted before placing the standard structural section described above for the rest of the subdivision.

In general, ditches in these subdivisions were inadequate for more than 50 percent of the roadways. Ditches shall be reestablished with a maximum grade of 2:1 and graded so that water does not pond. Culverts shall be removed and replaced with adequate coverage per DOT&PF Standards.

2.3.2 ROBE LAKE NEIGHBORHOODS

DOWL understands that the Robe Lake neighborhoods are being considered for a more robust surfacing project. The driving surface in these subdivisions is uneven and bedrock is exposed in multiple locations. Additional material will be required to provide an adequate driving surface. Steep grades coupled with inadequate drainage and ditches have created drainage paths along the driving surface which washes away fines and damages the road.

It is recommended that steep sections be regraded to no more than a 12 percent grade.

The existing driving surface is an adequate subgrade for a paved structural section. The existing driving surface should be scarified and compacted prior to placing additional material.

A minimum of 6 inches of base course should be added and graded with an adequate crown. Four inches of leveling course should be placed and compacted. Additional base course may be needed to bring the road to appropriate grade or to cover exposed bedrock. Bedrock should be covered by the entire 10-inch structural section. Material should be placed in 6-inch lifts, with each lift being compacted to a minimum of 95 percent of the material's maximum density.

In general, more than 50 percent of the ditches in these subdivisions were inadequate and should be reestablished. Ditches shall be reestablished with a maximum grade of 2:1 and graded so that water does not pond. Culverts shall be removed and replaced with adequate coverage per DOT&PF Standards.

2.3.3 ALASKA AVENUE EAST OF RICHARDSON HIGHWAY

Alaska Avenue east of the Richardson Highway, near the fuel station, is severely potholed and failed due to heavy commercial traffic. It is recommended that the road be paved from its intersection at the Richardson highway to its intersection at 9th Street. Scarify a minimum of 6 inches and compact the existing driving surface. 6 inches of base course should be added, a 2-inch leveling course, and 2 inches of pavement. Material should be placed in 6-inch lifts, with each lift being compacted to a minimum of 95 percent of the material's maximum density.

2.4 MATERIAL SPECIFICATION RECOMMENDATIONS

DOWL assumes that the City of Valdez will use material that meets their standard specifications. Therefore, materials are not specified in the recommendations provided. General guidelines for materials as assumed in the specifications provided below.

2.5 SPECIAL USE ROADS

Most gravel roads included were primarily residential use though several are not and are called out here for their specific uses. These special uses are noted in the table in Appendix B. Typical recommendations are amended for these roads due to their use. In some cases, it is recommended the road be left alone despite its low PASER rating due to its use.

2.5.1 INDUSTRIAL USE ROADS

Glacier Haul Road, Harris Sand and Gravel Access Road, Airport Road

Industrial use roads are predominantly used for heavy truck traffic. Standard maintenance recommendations for each of these roads have been included in Appendix B. If these roads are selected for a more intensive project due to the heavy truck traffic, the standard structural section depth may need to be increased to accommodate heavy truck traffic loads.

2.5.2 EQUIPMENT ACCESS ROADS

Copper Road

This road is routed along the top of a dike along the Lowe River. This road received a low PASER rating due it to being constructed only of the embankment materials used to construct the dike. This road is intended for use with equipment that is servicing the dike and is in good condition for its intended use.

2.5.3 UNIMPROVED ROADS

Empire Street, Sponge Circle, Dunning Drive, Cottonwood Lane, Tasuna Lane

These roads were assessed but are currently used as a snow dump area or as a driveway servicing one or two properties. Unimproved roads are characterized by low traffic volume which is apparent by the vegetation observed on the driving surface. These roads are rated but detailed comments and recommendations are not included due to the extremely low volume of use.

2.5.4 RECREATIONAL AND MINING ACCESS ROADS

Dayuse Road, Mineral Creek Road

These roads are used for access to recreational and mining areas and lower service standards may be acceptable for these roads. Both roads had severe potholes and poor drainage. The service level of both roads would be improved if material were added and ditches were established. Recommendations for these roads are as shown in Appendix B.

It should be noted that the service level of Mineral Creek Road could be improved if material were added to the road. However, the logistics of hauling material up the road for the use it sees may not be economical or feasible due to truck access. Additionally, regrading the road is not currently feasible without first replacing the culverts and placing an appropriate amount of material cover; the tops of culverts are currently exposed through the driving surface in multiple locations.

3.0 CLOSING

DOWL prepared this memorandum for the City of Valdez to use in planning decisions on the Rural Roads Assessment project. DOWL prepared this report, including recommendations, figures, and design details specifically for the above referenced project. These recommendations are not applicable to other construction sites. Do not separate the figures from the text for independent use.

DOWL performed these services consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in this area under similar time and budgetary constraints. No warranty is made or implied.

DOWL services do not include services related to construction safety precautions and any conclusions made by a construction contractor or bidder relating to construction means, methods, techniques, sequences, or costs based upon the information provided in this report are not the responsibility of DOWL.

4.0 ATTACHMENTS

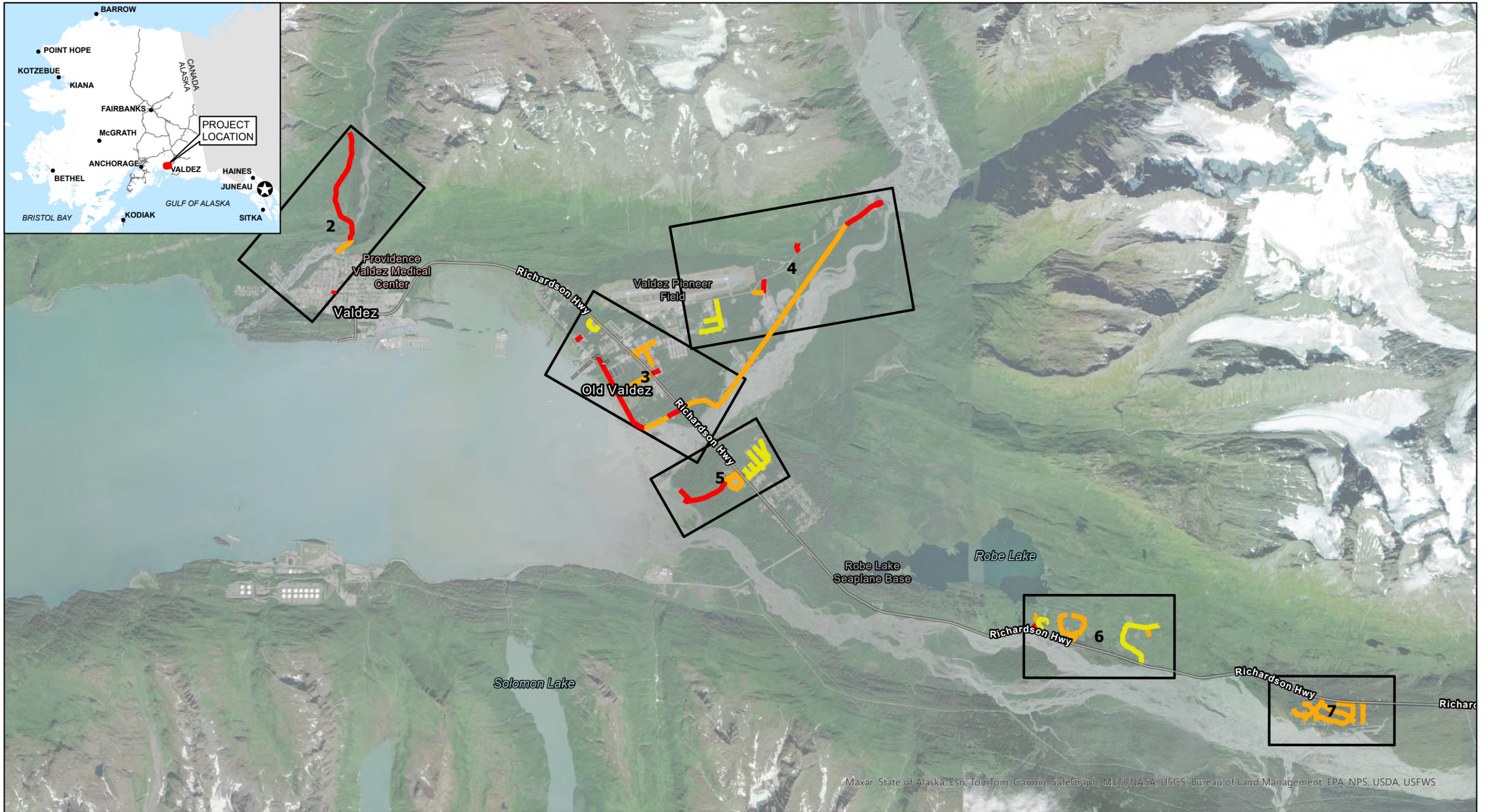
Appendix A: Maps of Ratings and Recommendations

Appendix B: Table of Ratings, Recommendations, and Estimates

Appendix C: Typical Sections for Recommended Improvements

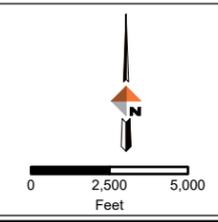
Appendix D: Modifications to Specifications

APPENDIX A:
MAPS OF RATINGS AND RECOMMENDATIONS



Overall Drainage and Surface Rating

- 1 - Failed
- 2 - Poor
- 3 - Fair



Drainage and Surface Rating

Valdez Rural Roads Assessment



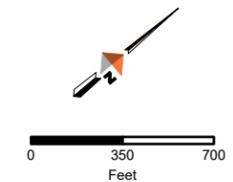
Date: October 17, 2024

Figure 1A



Overall Drainage and Surface Rating

- █ 1 - Failed
- █ 2 - Poor
- █ 3 - Fair



Drainage and Surface Rating

Valdez Rural Roads Assessment

Date: October 17, 2024



Figure 2A



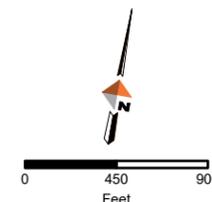
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Overall Drainage and Surface Rating 1 - Failed 2 - Poor 3 - Fair		 	Drainage and Surface Rating Valdez Rural Roads Assessment	
				Date: October 17, 2024 Figure 3A



Overall Drainage and Surface Rating

- █ 1 - Failed
- █ 2 - Poor
- █ 3 - Fair



Drainage and Surface Rating

Valdez Rural Roads Assessment

Date: October 17, 2024



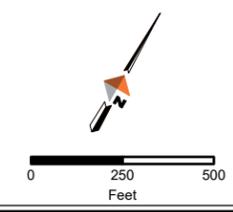
Figure 4A



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Overall Drainage and Surface Rating

- █ 1 - Failed
- █ 2 - Poor
- █ 3 - Fair



Drainage and Surface Rating

Valdez Rural Roads Assessment

Date: October 17, 2024



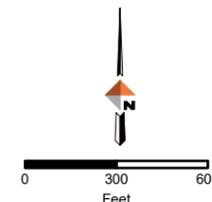
Figure 5A



ROBE LAKE NEIGHBORHOODS

Overall Drainage and Surface Rating

- █ 1 - Failed
- █ 2 - Poor
- █ 3 - Fair



Drainage and Surface Rating

Valdez Rural Roads Assessment

Date: October 17, 2024



Figure 6A

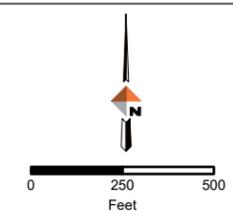


ALPINE WOODS (10 MILE) NEIGHBORHOOD

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Overall Drainage and Surface Rating

- █ 1 - Failed
- █ 2 - Poor
- █ 3 - Fair



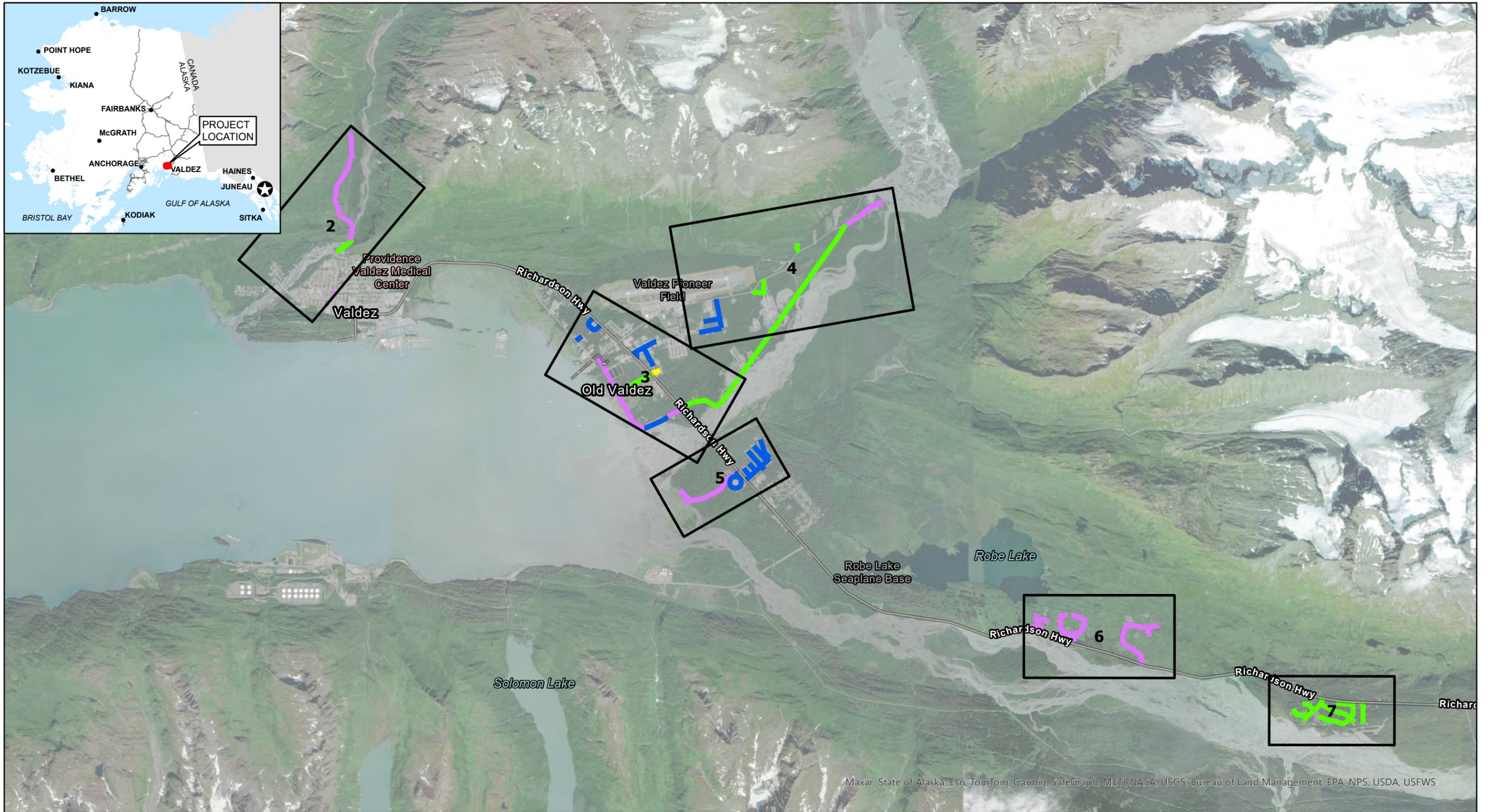
Drainage and Surface Rating

Valdez Rural Roads Assessment

Date: October 17, 2024



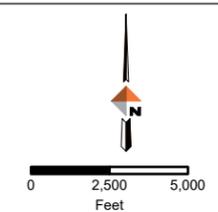
Figure 7A



Maxar, State of Alaska, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

Recommended Typical Section

- █ A
- █ B
- █ C
- █ D



Recommended Typical Section

Valdez Rural Roads Assessment



Date: October 17, 2024

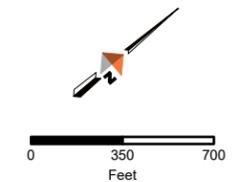
Figure 1B



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Recommended Typical Section

- █ A
- █ B
- █ C
- █ D



Recommended Typical Section

Valdez Rural Roads Assessment

Date: October 17, 2024



Figure 2B



Recommended Typical Section

- A
- B
- C
- D

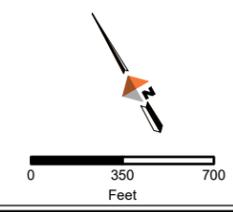
Recommended Typical Section

Valdez Rural Roads Assessment

Date: October 17, 2024



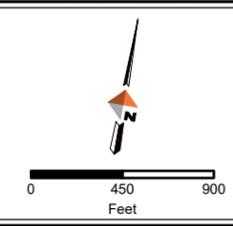
Figure 3B





Recommended Typical Section

- █ A
- █ B
- █ C
- █ D



Recommended Typical Section

Valdez Rural Roads Assessment



Date: October 17, 2024

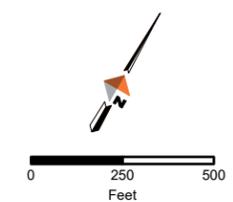
Figure 4B



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Recommended Typical Section

- █ A
- █ B
- █ C
- █ D



Recommended Typical Section

Valdez Rural Roads Assessment



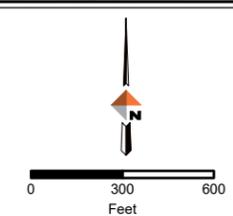
Date: October 17, 2024

Figure 5B



Recommended Typical Section

- █ A
- █ B
- █ C
- █ D



Recommended Typical Section

Valdez Rural Roads Assessment



Date: October 17, 2024

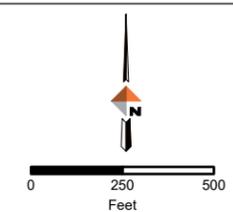
Figure 6B



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Recommended Typical Section

- █ A
- █ B
- █ C
- █ D



Recommended Typical Section

Valdez Rural Roads Assessment



Date: October 17, 2024

Figure 7B

APPENDIX B:
TABLE OF RATINGS, RECOMMENDATIONS, AND
ESTIMATES

Valdez Rural Roads Assessment - Table of Ratings, Recommendations, and Estimates

Segment Name	Drainage Rating	Surface Rating	Drainage/ Surface Notes	Recommendations	Intersections with Notable Issues	Road Length (ft)	Est. 12" Culverts (lf)	Est. 18" Culverts (lf)	Est. Asphalt Removal (sy)	Recommended Section	Total EE Cost - Per Road	Total EE Cost - Asphalt Option
10 Mile/ Alpine Woods Neighborhood												
Alder Way	2 - Poor	2 - Poor	Crushed culvert at intersection, drainage issues, berms, saturated surface course	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Alder/ Chalet Alder/ Whispering Spruce	703.3	268.8	30.4		A	\$ 246,389.65	\$ 298,579.58
Aspen Way	2 - Poor	3 - Fair	Minor potholes, minor rutting, berms, no ditches, minor crown	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		387.7	201.6	0		B	\$ 127,952.15	\$ 173,634.46
Chalet Dr	2 - Poor	3 - Fair	12" berms in some locations, minor isolated potholes with one section of moderate potholes, minor rutting, no ditches, isolated areas of segregated material, crown generally adequate, loose gravel	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Chalet/ Alder Chalet/ Sealion	3424.4	761.6	91.2		B	\$ 887,498.51	\$ 1,290,992.13
Cottonwood Ln			unimproved road - organics growing through aggregate	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		157.6	22.4	0		B	\$ 36,194.96	\$ 54,764.81
Nordic Dr	2 - Poor to failed	3 - Fair	Crown good, no ditches, isolated potholes and rutting. Rick wade spoke to us about road issues: (907)255-2199	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		1368.6	336	0		B	\$ 351,896.38	\$ 513,157.15
Sealion Rd	2 - Poor	2 - Poor	Poor drainage, no crown, notable separation of fine/ course aggregate, moderate/ severe potholing, minor berms, poor ditching	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Sealion/ Chalet	1058.5	156.8	0		B	\$ 244,786.33	\$ 369,508.32
Snowflake Cir	2 - Poor	2 - Poor	Moderate potholes, minor ruts, significant berms 8", overgrown undefined ditches, aggregate segregation	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Snowflake/ Whispering Spruce	921.4	224	0		B	\$ 236,324.79	\$ 344,892.43
Whispering Spruce Dr	2 - Poor	2 - Poor	Moderate potholes, minor rutting, significant berms 12", some existing ditches but holding water, no defined crown, standing water, crushed culverts - need more cover	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Whispering Spruce/ Alder Whispering Spruce/ Snowflake	2599	515.2	152		B	\$ 682,330.92	\$ 988,568.49
Wilderness Ct	2 - Poor	3 - Fair	Berms, isolated moderate rutting at 1", lack of ditches, minor potholing, minimal crown	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		395.9	134.4	0		B	\$ 111,676.38	\$ 158,324.88
Wilderness Ln	2 - Poor	3 - Fair	Minor ditches exist on 25%, significant gravel berms - some over 6" - prevent drainage, isolated ponding	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		2110.9	537.6	0		B	\$ 547,900.12	\$ 796,625.36
Robe Lake Neighborhoods												
Corbin Loop	2 - Poor	2 - Poor	Aggregate segregation, loose aggregate, severe potholes >6" deep, water running down roadway causing erosion/ rutting, no ditches, no crown, bedrock showing through many areas, crushed culverts	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		5070.9	425.6	0		A	\$ 1,307,408.96	
Cummings Way	3 - Fair	3 - Fair	Minor potholes, isolated severe potholes, segregation, 5" berms, existing overgrown ditches with varying depth, surface course visible, no crown	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Cummings/ Dunning	1074.5	0	152		A	\$ 299,788.75	

Valdez Rural Roads Assessment - Table of Ratings, Recommendations, and Estimates

Segment Name	Drainage Rating	Surface Rating	Drainage/ Surface Notes	Recommendations	Intersections with Notable Issues	Road Length (ft)	Est. 12" Culverts (lf)	Est. 18" Culverts (lf)	Est. Asphalt Removal (sy)	Recommended Section	Total EE Cost - Per Road	Total EE Cost - Asphalt Option
Deep Lake Dr	3 - Fair	3 - Fair	Repairs made that resulted in segregation/ loose gravel placed on top, weak crown, some bedrock showing, minor wash boarding in steep areas	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		5232.37	425.6	0		A	\$ 1,345,440.42	
Dunning Dr	1 - Failed	3 - Fair	Unimproved road, No crown, rutting, mud, no ditches, segregation, minor rutting	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Cummings/ Dunning	404.6	0	0		A	\$ 95,296.51	
Lake View Dr	3 - Fair	2 - Poor	Several moderate potholes recently filled with coarse aggregate, no crown, some poor ditches, minor rutting/ erosion, ditches holding water - culverts need clearing/ replacement, bedrock showing in some places	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		559.1	67.2	0		A	\$ 149,535.74	
Sponge Cir				Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		602.38	22.4	0		A	\$ 147,829.97	
Tesslina Lane	3 - Fair	3 - Fair	Segregation, large cobbles, no crown, existing ditches need mucking	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		447.5	22.4	60.8		A	\$ 130,034.24	
Corbin Creek Neighborhood												
Bering St	3 - Fair	3 - Fair to good	Isolated minor potholes towards road entrance, appears to be surface course, some loose gravel, some berms up to 4", existing overgrown ditches, crushed/ overgrown culverts, visible crown	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Bering/ Wood	645.6	156.8	0		C	\$ 144,424.66	\$ 241,616.74
Black Rapids St	3 - Fair	3 - Fair	Isolated minor to moderate potholes at road entrance, appears to be surface course, some loose gravel, good crown, some good ditches, some existing overgrown ditches, some need reestablishing, crushed or missing culverts	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Black Rapids/ Wood	645.6	156.8	0		C	\$ 144,424.66	\$ 241,616.74
Childs St	3 - Fair	4 - Good	Isolated minor to moderate potholes at road entrance, no potholes towards cul de sac, appears to be surface course, some loose gravel, some existing overgrown ditches, some crushed culverts, Good crown, no berms	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Childs/ Wood	1265.7	358.4	0		C	\$ 296,689.49	\$ 487,234.74
Fairweather St	3 - Fair	3 - Fair	Isolated minor to moderate potholes at road entrance, no potholes towards cul de sac, rutting along length of roadway, appears to be surface course, some loose gravel, some berms up to 4", existing overgrown ditches, crushed culverts, good crown	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Fairweather/ Wood	1265.7	403.2	0		C	\$ 308,589.11	\$ 499,134.36

Valdez Rural Roads Assessment - Table of Ratings, Recommendations, and Estimates

Segment Name	Drainage Rating	Surface Rating	Drainage/ Surface Notes	Recommendations	Intersections with Notable Issues	Road Length (ft)	Est. 12" Culverts (lf)	Est. 18" Culverts (lf)	Est. Asphalt Removal (sy)	Recommended Section	Total EE Cost - Per Road	Total EE Cost - Asphalt Option
Mendenhall St	3 - Fair	3 - Fair to good	Isolated minor to moderate potholes at road entrance, no potholes towards cul de sac, appears to be surface course, some loose gravel, some berms up to 4", existing overgrown ditches, crushed culverts	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		1347	336	0		C	\$ 303,682.19	\$ 506,466.77
Wood Way	3 - Fair	4 - Good	Some surface course visible, loose gravel, minor beginnings of potholes, good ditches but need mucking, road intersections missing culverts, good crown, berms 4"	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Bering/ Wood Black Rapids/ Wood Childs/ Wood Fairweather/ Wood	2052	246.4	182.4		C	\$ 448,165.76	\$ 757,084.82
Worthington St	3 - Fair	4 - Good	seems like private drive - Good ditches, berms in way of drainage	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		298.4	44.8	0		C	\$ 59,403.26	\$ 104,326.00
Industrial Neighborhoods												
9th	2 - Poor	3 - Fair	Some crown, berms 6", standing water, minor potholes recently regraded, some existing ditches, most overgrown or full, no functioning culverts, surface course mostly in berm, some loose gravel	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	9th/ driveways	1724.4	179.2	60.8		C	\$ 340,797.07	
Atigun Dr	3 - Fair	3 - Fair	Isolated moderate potholes, overgrown ditches, undefined crown, some loose gravel	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		1450.5	112	0		C	\$ 260,660.69	
Hobart St	3 - Fair	4 - Good	Established ditches but overgrown, loose aggregate, crown not super defined, end of road doesn't look used	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		1045.7	67.2	0		C	\$ 184,319.13	
Mill St	2 - Poor	2 - Poor	Construction in roadway - difficult to grade - intersection fails but rest of roadway is poor to fair	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Mill/ Sawmill	410.9	67.2	0		C	\$ 83,262.46	
N Sawmill Dr	2 - Poor	3 - Fair	Loose gravel, 3" berms, good crown, overgrown ditches or no ditches, ditches holding water, collapsed or missing culverts, minor rutting and potholes, isolated moderate potholes, and significant standing water at asphalt transition	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Sawmill/ 9th Sawmill/ Mill	1740.8	448	91.2		C	\$ 424,147.40	
Rudolph St	3 - Fair	3 - Fair	Mild potholes, isolated moderate potholes and rutting, fair crown, fair ditches, minimal berms, some loose aggregate	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		1881	89.6	60.8		C	\$ 341,927.67	
Zurich Loop Rd	3 - Fair	3 - Fair	Minor potholes and rutting, some isolated moderate potholes and severe potholes at intersections, 2" berms causing ponding, ditches and culverts in good condition, surface course present, good crown	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Zurich/ Eiger Zurich/ driveways	1521.9	0	0		C	\$ 242,278.11	

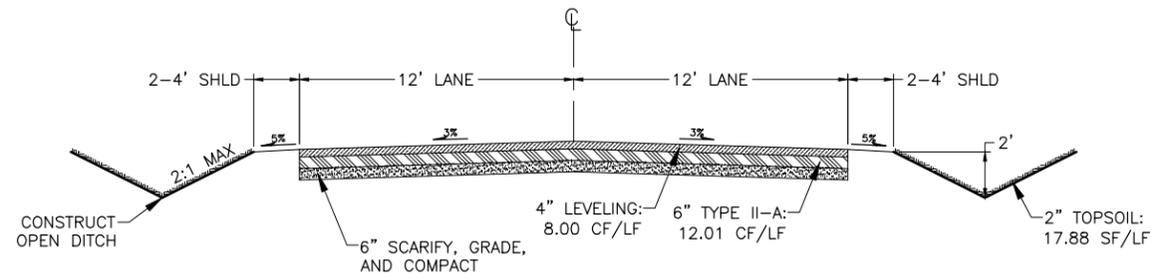
Valdez Rural Roads Assessment - Table of Ratings, Recommendations, and Estimates

Segment Name	Drainage Rating	Surface Rating	Drainage/ Surface Notes	Recommendations	Intersections with Notable Issues	Road Length (ft)	Est. 12" Culverts (lf)	Est. 18" Culverts (lf)	Est. Asphalt Removal (sy)	Recommended Section	Total EE Cost - Per Road	Total EE Cost - Asphalt Option
Non-Residential Roads												
Airport Rd	1 - Failed	1 - Failed	Severe potholes 30% of road, spalling, no ditches, no defined crown, 3' berms, loose gravel, ponding water, severe potholes 15+ ft wide at end of road	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		3096	112	152		A	\$ 805,667.07	
Alaska Ave - E of hwy	1 - Failed	1 - Failed	No culverts, no crown, severe potholes 6" deep at asphalt break, moderate potholes and rutting rest of road, no ditches, no berms	Recommend paving to 9th due to heavy gas station traffic. Scarify 6", grade, and compact. Place surface course and AC pavement. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Alaska/ Richardson	606.4	89.6	30.4		D	Recommend Asphalt Option	\$ 220,967.28
Alaska Ave - W of hwy	2 - Poor to failing	3 - Fair	Good crown, loose gravel, minor potholes, significant berms, no ditches, standing water at McKinley intersection - road seems recently graded/ potholes covered recently	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Alaska/ McKinley	2478.6	134.4	0		B	\$ 511,369.11	
Copper Ave - Dike	3 - Fair	2 - Poor	Loose cobbles, constructed on dike, steep slopes either side, no crown	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		1715.7	0	0		C	\$ 273,130.00	
Copper Ave - E of Dike	1 - Failed	1 - Failed	Severe potholes 10' wide, no ditches, loose cobbles and gravel, no crown, washed out area	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		1001.4	44.8	0		A	\$ 247,762.02	
Dayuse Rd	1 - Failed	2 - Poor to failed	No intentional drainage/ ditches, severe potholes, no surface course, no crown	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		604.4	0	30.4		B	\$ 125,332.70	
Empire St	1 - Failed	3 - Fair	No crown, no ditches, no potholes	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		458.8	0	30.4		C	\$ 82,380.22	
Glacier Haul Rd	2 - Poor to failed	3 - Fair to good	Isolated sections of moderate and severe potholes with spalling, berms of up to 3' with large cobbles, standing water, good crown in most areas, no surface course, no drainage or ditches, consistent minor potholes/ wash boarding, loose gravel	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		16476.4	336	243.2	2073.333	B	\$ 3,351,970.63	
Goldfields softball complex	2 - Poor	4 - Good	Isolated moderate potholes at asphalt transition, no ditches, well graded otherwise, some minor rutting, surface course present, no berms, no crown but graded outward, loose surface course	Scarify 6", grade, and compact. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		177.3	0	60.8		C	\$ 46,908.75	
HS&G Access Rd - Blocked Side	1 - Failed	3 - Fair	Half overgrown, boulder blocking entrance, surface course present, moderate potholes, no berms, no ditches	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		876.9	0	30.4	133.3333	B	\$ 179,299.74	
HS&G Access Rd - Usable Side	2 - Poor	2 - Poor	Moderate potholes ~50%, berms, asphalt patch, no ditches no defined crown	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		720.7	0	91.2	4.444444	B	\$ 166,391.21	

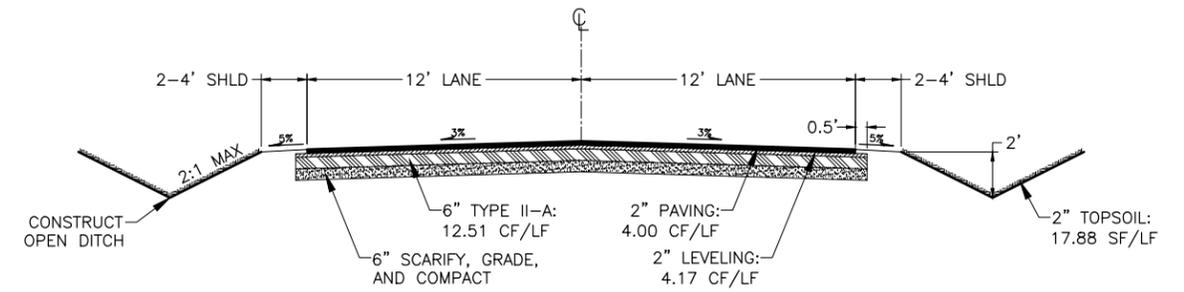
Valdez Rural Roads Assessment - Table of Ratings, Recommendations, and Estimates

Segment Name	Drainage Rating	Surface Rating	Drainage/ Surface Notes	Recommendations	Intersections with Notable Issues	Road Length (ft)	Est. 12" Culverts (lf)	Est. 18" Culverts (lf)	Est. Asphalt Removal (sy)	Recommended Section	Total EE Cost - Per Road	Total EE Cost - Asphalt Option
McKinley St - Airport to Alaska	1 - Failed	2 - Poor	Appears to be recently regraded and under construction/ improvement. Minor to moderate potholes, wash boarding, berms, no ditches, undefined crown, large culvert with no cover	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	McKinley/ Alaska	2544.8	22.4	60.8		A	\$ 624,016.87	
McKinley St - Alaska to Copper	1 - Failed	1 - Failed	Severe potholes up to 12" deep, washed out road, berms, some ditch, not compacted, no crown, no surface course, Some unmaintained ditches, berms 3" block ditches	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	McKinley/ Alaska	2942	112	60.8		A	\$ 741,369.69	
Mineral Creek Rd - N of bridge	1 - Failed	1 - Failed	Severe potholes 6" deep - 75% of road, some ditches but full of standing water, many blocked/ crushed culverts with no cover, bedrock showing in many areas, no crown, no surface course, loose gravel, some loose cobbles, some washout areas, some berms, broken fence blocking steep drop	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		7720.2	291.2	0		A	\$ 1,895,706.73	
Mineral Creek Rd - S of bridge	2 - Poor to failed	2 - Poor to Fair	No surface course, some cobbles show through surface, loose gravel, no ditches, water running across road, some berms, no crown, minor potholes	Scarify 6", grade, and compact. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		1089.7	0	30.4		B	\$ 218,467.04	
Old Cemetery Rd	1 - Failed	1 - Failed	No surface course but compacted base course, significant potholes/ rutting - 6" deep, mud from organic buildup, no berms, no ditches, no crown, missing culverts	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Old Cemetery/ Walter Day Memorial	963.7	0	60.8		A	\$ 245,666.38	
Tasuna Ln	1 - Failed	1 - Failed	Unimproved road, no structural section, no drainage, saturated organics causing mud	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		229	22.4	0		A	\$ 59,886.79	
Walter Day Memorial Rd - End of Road Past Old Cemetery	1 - Failed	1 - Failed	Severe potholes 12" deep and 20' wide	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Old Cemetery/ Walter Day Memorial	486.9	0	0		A	\$ 114,680.85	
Walter Day Memorial Rd - Start of Road to Clearing	2 - Poor to failed	3 - Fair	Minor potholes, significant berms, isolated standing water, some crown	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.		2591	44.8	60.8		A	\$ 640,848.29	
Walter Day Memorial Rd - Clearing to End of Road	1 - Failed	2 - Poor	No crown, moderate potholes, standing water, no ditches, minor berms, no surface course	Scarify 6", grade, and compact. Add base course. Add surface course. Address berms, establish ditches, and reestablish crown. Replace damaged culverts.	Old Cemetery/ Walter Day Memorial	1131	0	91.2		A	\$ 294,412.78	

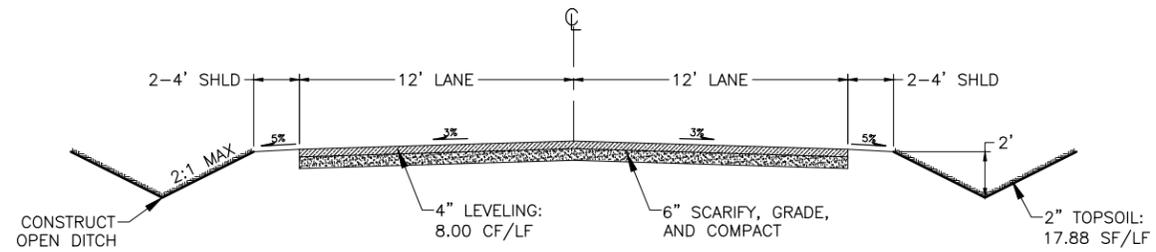
APPENDIX C:
TYPICAL SECTIONS FOR RECOMMENDED
IMPROVEMENTS



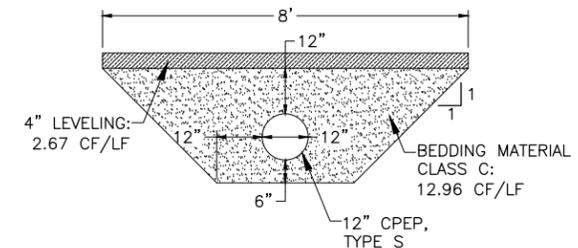
SECTION A



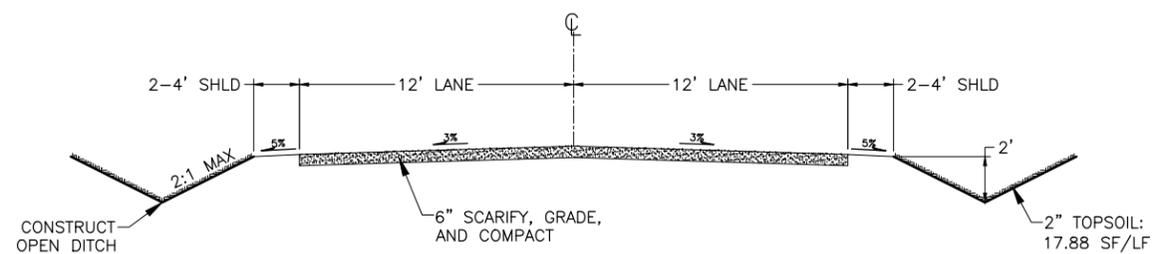
SECTION D



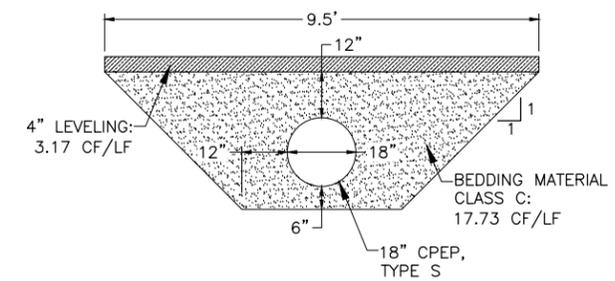
SECTION B



12" CULVERT SECTION



SECTION C



18" CULVERT SECTION

VALDEZ RURAL ROADS ASSESSMENT
 TYPICAL SECTIONS FOR RECOMMENDED IMPROVEMENTS
 PER LINEAR FOOT (LF)

APPENDIX D:
MODIFICATIONS TO SPECIFICATIONS

MODIFICATIONS AND TO CITY OF VALDEZ STANDARD SPECIFICATIONS

The following listed provisions are amended as hereinafter stated:

DIVISION 20 STANDARD CONSTRUCTION SPECIFICATIONS FOR EARTHWORK

SECTION 20.21 GRADING EXISTING SURFACES

Article 21.2 Construction

Delete this Article in its entirety and replace with the following:

To the extent indicated on the Drawings, and as directed by the Engineer, the Contractor shall scarify, grade, and compact the existing ground. Prior to grading, the ground surface shall be scarified, plowed, steeped or broken up in such a manner that the top 6" of material will blend with the existing surface.

When grading, material should first be brought inward, to create a windrow. The windrow should then be graded outwards, keeping the established crown of the road intact and grading only so far as the existing edge of road. Berms should not be created during grading. Material removed from the high areas shall be used to fill the depressions.

Loose material should be compacted immediately following grading, using a vibratory compaction roller to prevent the premature creation of ruts, segregation, and loss of fine material. For roads, the required compaction shall be ninety percent (90%) of the maximum density. Graded material which is excessively wet shall be aerated by means of blade graders, harrows, or other suitable equipment until the moisture content is satisfactory.

When the bid item is "Grading Existing Surfaces," no separate payment will be made for "Usable Excavation."



DOWL Project No.: TBD

STANDARD AGREEMENT FOR PROFESSIONAL SERVICES

THIS IS AN AGREEMENT effective as of June 19, 2025 and shall expire September 30, 2026 between **City of Valdez, 300 Airport Road, Suite 201, Valdez, AK 99686 (Client)** and **DOWL, 5015 Business Park Boulevard, Suite 4000, Anchorage, AK 99503 (DOWL)**. Client and DOWL agree that DOWL will perform the professional services identified in Exhibit A associated with:

Paving and drainage repairs in Corbin Creek Neighborhood, along with gravel surface and drainage repair for Sawmill Drive, Mills Street, and 9th Street.

Representatives: **CLIENT:** Brad Sontag

DOWL: LaQuita Chmielowski, PE, LEED AP

SCOPE OF SERVICES:

See EXHIBIT A - SCOPE OF SERVICES

COMPENSATION by CLIENT to DOWL:

Reimbursement shall be on a **Fixed Price Lump Sum Basis**, (with a not-to-exceed total of \$107,817.00). DOWL shall invoice no more often than monthly for services performed in the previous month in accordance with the unit rates set forth in EXHIBIT B. To be consistent with services actually rendered, DOWL may alter the distribution of compensation between individual phases/tasks of the work noted herein but, shall not exceed the total estimated compensation without CLIENT’S prior approval.

<u>Phase</u>	<u>Fee</u>
Survey.....	\$24,600
50% Design.....	\$46,991
Construction Documents.....	\$36,226
Total:	\$107,817

The following are hereby made a part of this AGREEMENT by attachment:

- Terms and Conditions** (3 pages)
- Exhibit A - Scope of Services**
- Exhibit B - Fee Estimate**

Services covered by this Agreement will be performed in accordance with the attached Terms and Conditions and any Exhibits, Attachments, and/or Special Conditions. This Agreement supersedes all prior agreements and understandings and may only be changed by written amendment executed by both parties.



IN WITNESS WHEREOF: Persons authorized to commit the resources of the Parties have executed this Agreement: and this agreement may be signed in any number of counterparts, each of which is an original, and all of which taken together constitute one single document:

Accepted for **Client:**

By: _____

Title: _____

Date: _____

Accepted for **DOWL:**

By: _____

Title: _____

Date: _____

Tax ID No or SSN: 92-0166301



DOWL STANDARD CONTRACT TERMS AND CONDITIONS

SECTION 1 - SERVICES OF DOWL

A. *Basic Services*

DOWL shall provide Client the services as described in this Agreement within the periods stipulated herein. Services will be paid for by Client as indicated herein.

B. *Schedule*

DOWL's services and compensation under this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion. Unless specific periods of time are specified in this Agreement, DOWL's obligation to render services hereunder will be for a period that may reasonably be required for the completion of said services.

C. *Authorization to Proceed*

Execution of this Agreement by Client will be authorization for DOWL to proceed with the Work as scheduled, unless otherwise provided for in this Agreement.

D. *Delay*

If in this Agreement, specific periods of time for rendering services are set forth, or specific dates by which services are to be completed, are provided, and if such periods of time or dates are changed through no fault of DOWL, the rates and amounts of compensation and time for completion provided herein shall be subject to equitable adjustment

E. *Changes/Additional Services*

The Scope of Services set forth in this Agreement is based on facts known at the time of execution of this Agreement, including, if applicable, information supplied by the Client. For some projects, the scope may not be fully definable during the initial stages and/or the Client may at any time during the term of this Agreement make changes within the general scope of the Agreement. If such facts discovered as the Project progresses, or changes that are requested by the Client, change the cost of, or time for, performing the services hereunder, DOWL will promptly provide Client with an amendment to this Agreement to recognize such changes.

SECTION 2 - TERMS OF PAYMENT

A. *Invoicing*

DOWL will submit invoices to Client for services rendered and reimbursable expenses incurred each month. Invoices will be prepared in accordance with DOWL's standard invoicing practices. Such invoices will represent the value of the completed Work and will be in accordance with the terms for payment in this Agreement.

B. *Progress Payments*

Invoices are due and payable within 30 calendar days of the date of the invoice. If Client fails to pay undisputed invoices when due, the amounts due will be increased at the rate of 1.0% per month from said 30th day. In addition, DOWL may at any time, without waiving any other claim against the Client, and without thereby incurring any liability to the Client, suspend or terminate performing work hereunder in accordance with Section 5.C of this Agreement. Payments will be credited first to interest and then to principal. In the event of a disputed or contested invoice, only that portion so contested may be withheld from payment, and the undisputed portion will be paid.

SECTION 3 - OBLIGATIONS OF CLIENT

A. *Furnish Data*

Client shall provide all criteria and full information as to Client's requirements for the Project and furnish all available information pertinent to the Project, including reports and data relative to previous designs or investigations at or adjacent to the site. Client shall provide such legal, independent cost estimating, and insurance counseling services as may be required for the Project.

B. *Representative*

Client will designate a person to act with authority on Client's behalf in respect of all aspects of the Project.

C. *Timely Review*

Client will examine DOWL's studies, reports, drawings and other project-related work products and render decisions required in a timely manner.

D. *Prompt Notice*

Client will give prompt written notice to DOWL whenever Client observes or otherwise becomes aware of hazardous environmental conditions or of any development that affects the scope or timing of DOWL's Scope of Services or any defect in the Services of DOWL or the work of any Contractor.

E. *Site Access*

Client will arrange for safe access to and make provisions for DOWL and DOWL's sub consultants to enter upon public or private property as required for DOWL to perform the Services under this Agreement.

SECTION 4 - OBLIGATIONS OF DOWL

A. *Independent Contractor*

DOWL is an independent contractor and will maintain complete control of and responsibility for its employees, subcontractors and sub consultants. DOWL shall also be solely responsible for the means and methods for carrying out the Scope of Services and for the safety of its employees.

B. *Performance*

DOWL will perform its Services using that degree of care and skill ordinarily exercised under the same conditions by Design Professionals practicing in the same field at the same time in the same or similar locality. Professional services are not subject to, and DOWL cannot provide any warranty or guarantee, express or implied, including warranties or guarantees contained in any uniform commercial code. Any such warranty or guarantee contained in any purchase order, requisition or notice to proceed issued by the Client are specifically objected to.

C. *Publicity*

DOWL will not disclose the nature of its Scope of Services on the Project or engage in any publicity or public media disclosures with respect to this Project without the prior written consent of Client.

D. *Insurance*

DOWL will maintain the liability insurance coverages listed below for Professional, Commercial General, Automobile, as well as, Worker's Compensation and Employer's Liability.

1. Workers' Compensation Insurance for all employees of DOWL engaged in work under this contract as required



by the laws of the state where the work is to be performed. This coverage will include statutory coverage and employer's liability protection of \$1,000,000 per person, \$1,000,000 per occurrence.

2. Commercial General Liability Insurance with limits of \$1,000,000 per occurrence and \$2,000,000 aggregate. This policy shall include the Client as an additional insured, with respect to the work done by or on behalf of DOWL and arising out of the Scope of Services under this agreement.
3. Automobile Liability Insurance with limits of \$1,000,000 per occurrence and combined single limit. This policy shall include the Client as an additional insured, with respect to the work done by or on behalf of DOWL and arising out of the Scope of Services under this agreement.
4. Professional Liability Insurance with limits of \$1,000,000 per claim and \$1,000,000 aggregate, written on claims made basis.

Certificates evidencing such coverage will be provided, upon request, to Client upon request once the contract is fully executed.

E. Compliance with Laws

DOWL will use reasonable care in accordance with 4.B to comply with applicable laws in effect at the time the Services are performed hereunder, which to the best of its knowledge information and belief, apply to its obligations under this Agreement.

F. No responsibility for Contractor Performance

DOWL will not be responsible for the quality of work for any person or entity (not including DOWL, its employees, representatives, and Consultants) performing or supporting construction activities relating to the Project (Contractor), or for any Contractor's failure to furnish or perform its work in accordance with the contract documents.

G. No responsibility for Site Safety

Construction Contractors shall be solely responsible for the supervision, directions and control of their work; means, methods, techniques, sequences and procedures of construction; safety precautions and programs; and compliance with applicable laws and regulations

H. Equal Opportunity Employment

DOWL is committed to the principles of equal opportunity and affirmative action in employment and procurement. DOWL does not discriminate against applicants, employees, or suppliers on the basis of factors protected by federal or applicable state laws.

I. Services Not Included:

DOWL's services and Additional Services do not include:

1. Serving as a "municipal advisor" for purposes of the registration requirements of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) or the municipal advisor registration rules issued by the Securities and Exchange Commission;
2. Advising Client, or any municipal entity or other person or entity, regarding municipal financial products or issuance of municipal securities, including advice with respect to the structure, timing, terms, or other similar matters

- concerning such products or issuances;
3. Providing surety bonding or insurance-related advice, recommendations, counseling, or research, or enforcement of construction insurance or bonding requirements; or
4. Providing legal advice or representation.

SECTION 5 - GENERAL CONSIDERATIONS

A. Reuse of Documents

1. All documents are instruments of service in respect to this Project, and DOWL shall retain an ownership and property interest therein (including the right of reuse at the discretion of DOWL) whether or not the Project is completed. Client may make and retain copies for information and reference in connection with the use and occupancy of the Project. Such documents are not intended or represented to be suitable for reuse by Client or others on extensions of the Project or on any other project. Any reuse without written verification of DOWL will be at Client's sole risk. Client shall indemnify and hold harmless DOWL and DOWL's Consultants from all claims, damages, losses, and expenses, including attorney fees arising out of or resulting therefore.
2. Copies of documents that may be relied upon by Client are limited to the original printed copies (also known as hard copies) that are signed or sealed by DOWL.
3. Because data stored in electronic media format can deteriorate or be modified, inadvertently or otherwise, without authorization of DOWL, the party receiving the electronic files agrees to perform acceptance tests or procedures within 60 days, after which the receiving party shall have deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by DOWL. DOWL will not be responsible to maintain documents stored in electronic media format after acceptance by Client.
4. DOWL makes no representations as to long term compatibility, usability, or readability of documents resulting from use of software application packages, operating system, or computer hardware differing from those used by DOWL at the beginning of this Project.

B. Indemnification

1. DOWL agrees, to the fullest extent allowed by law, to indemnify and hold harmless Client from and against any liability, damages and costs (including reimbursement of reasonable attorney's fees and costs of defense) arising out of the death or bodily injury to any person or the destruction or damage to any property, arising during the performance of professional services under this Agreement, but only to the extent caused by the negligent act, or omission of DOWL or anyone for whom DOWL is legally responsible. DOWL's defense obligations under this indemnity paragraph means only the reimbursement of reasonable defense costs to the proportionate extent of DOWL's actual liability obligation hereunder.
2. Client agrees to indemnify and hold harmless DOWL from any liability, damages and costs, (including reasonable attorney's fees and costs of defense) but only to the extent caused by the negligent acts, errors, and



omissions of the Client, Client's contractors, consultants, and anyone for whom Client is legally responsible.

3. A party's total liability to the other party and anyone claiming by, through or under the other party for any claim, cost, loss or damage (including reasonable attorney fees and cost of defense) caused in part by the negligence of the party and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share the party's actual negligence bears to the total of all negligence of Client, DOWL and all other negligent entities and individuals.

C. Termination / Suspension

1. Client may terminate this Agreement for convenience. In such event, DOWL will be entitled to compensation for Services performed up to the date of termination, including profit related thereto, plus any expenses of termination.
2. The obligation to provide further Services under this Agreement may be suspended by either party upon 7 days written notice or terminated by either party upon thirty (30) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof (including Client's obligation to make payments required hereunder) through no fault of the suspending or terminating party, and defaulting party does not commence correction of such nonperformance within five (5) days of written notice and diligently completes the correction thereafter.

D. Mutual Waiver

To the fullest extent permitted by Laws and Regulations, DOWL and Client waive against each other, and the other's employees, officers, directors, members, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to this Agreement or the Project, from any cause or causes.

E. Limits of Agreement

This instrument contains the entire Agreement between the parties, and no statement, promise or inducements made by either party that are not contained in this written Agreement shall be valid or binding. This Agreement upon execution by both parties hereto, can only be amended by written instrument signed by both parties.

F. Severability and Survival

The various terms, provisions and covenants herein contained shall be deemed to be separate and severable, and the invalidity of unenforceability of any of them shall not affect or impair the validity or enforceability of the remainder.

G. Waiver

No waiver by either party of any default by the other party in the performance of any particular section of this Agreement shall invalidate any other section of this Agreement or operate as a waiver of any future default, whether like or different in character.

H. Choice of Law and Venue

The parties agree that any action at law or judicial proceeding for the enforcement of this Agreement or any provision thereof shall be instituted only in the courts of the State of Alaska, and it is mutually agreed that this Agreement shall be governed by the laws of the State of Alaska, both as to interpretation and performance.

I. Material Adverse Effect

This Agreement may be amended if an event, change or effect creates a material adverse effect upon the operation of DOWL. Such material adverse effect may be created by, or be the effects of Acts of God (including fire, flood, earthquake, storm, or other natural disaster), war (whether declared or not declared), terrorist activities, labor dispute, strike, lockout or interruption or failure of electricity or telephone service which materially impairs DOWL's ability to operate business in accordance with the provisions of this Agreement.

J. No Third-Party Beneficiaries

Nothing contained in this Agreement nor the performance of the parties hereunder, is intended to benefit, nor shall inure to the benefit of, any third party, including Client's contractors, if any.

K. Successor, Assigns, and Beneficiaries

Neither Client nor DOWL may assign, sublet, or transfer any rights under or interest (including but without limitation, moneys that are due or may become due during or post-contract performance) in this Agreement without the written consent of the other, except as mandated or restricted by law. No assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

L. Statutes of Limitation

To the fullest extent permitted by law, parties agree that, except for claims for indemnification, the time period for bringing claims under this Agreement shall expire one year after Project completion.

M. Authority

The person signing this Agreement warrants that they have the authority to sign as, or on behalf of, the party for whom they are signing.

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Exhibit A to Standard Agreement for Professional Services Scope of Services

Scope

Based on the Valdez Rural Roads Assessment (written by DOWL and dated March 27, 2025), the City of Valdez wants to pursue repair work to Corbin Creek Neighborhood, Sawmill Drive, Mills Street, and 9th Street. Corbin Creek Neighborhood is a residential neighborhood that currently has gravel roads with shallow ditches. The project design will include the following:

- The neighborhood roads will be re-graded to address drainage issues and paved with asphalt. The ditches will be cleaned out and regraded as necessary.
- The majority, if not all, of the driveway culverts will need to be replaced.
- Approximately six snow storage sites exist in the neighborhood. We will evaluate the topographic survey and address drainage issues at the snow storage sites and provide asphalt pavement up to the storage areas.
- Paving of Corbin Creek Neighborhood will be shown as an Additive Alternate; while the Base Bid will include road and ditch grading, culverts, and gravel surface.

Sawmill Drive, Mills Street, and 9th Street are in an industrial area. These roads are topped with gravel and currently there is limited to nonexistent drainage facilities. The roads will be regraded as needed and include ditches or storm drainpipes to address the drainage issues. These roads will remain gravel.

Survey

DOWL will conduct a topographic survey of Corbin Creek Neighborhood, Sawmill Drive, Mills Street, and 9th Street. A surveyed basemap of these roads is required to adequately assess the drainage problems and provide grading corrections. The survey basemap will include ROW and property lines, ground based topography, and utilities that are located during the field work. We will call for locates before the survey crew arrives as at the site. An existing conditions basemap will be created in AutoCAD format from the surveyed information. The survey will extend approximately 15-ft beyond the ROW to aid in assessing the drainage patterns and design work.

Construction Documents

We will prepare signed construction documents for Corbin Creek Neighborhood that show regrading, ditches, culverts, driveway aprons to the extent needed, and paving.

We will prepare signed construction documents for Sawmill Drive, Mills Street, and 9th Street that show regrading and gravel surfacing, along with drainage improvements.

A 50% set of design drawings will be provided for review and commenting by COV. We will discuss any review comments and revise the plans and proceed to a 95% set of plans for review and commenting by COV. Once the 95% set of plans have been accepted, we will finalize and sign the construction documents.

The two work areas will be shown in a single plan set. We estimate the plan set will be 50 to 60 sheets and will consist of a cover sheet, survey control, demolition and existing conditions, site layout, grading and stormwater information, road cross sections, and details. The paving or gravel surfacing of the roads will not require significant regrading and will not require profiles of the roads. We will capture the grading information with plan view sheets of the area.



CA Services

These services for work described above will be provided under a separate proposal.

Assumptions

- Design for new or relocated water, sewer, gas, electric, and communication utility design is not included.
- Wetlands permitting is not required.
- Floodplain mapping is not required.
- We will base the pavement and gravel road sections on the Valdez Rural Roads Assessment. No additional geotechnical work is included.
- We will reference COV standard specifications. Separate specifications will not be provided.
- Permitting is not required.
- The disturbance area for Corbin Creek Neighborhood is approximately 15 acres; and Sawmill Drive, Mills Street, and 9th Street disturbance area is approximately 6 acres. Both sites will require a SWPPP. We assume the contractor will provide this.
- Topographic surveys for both project sites can be completed at the same time with one mobilization to Valdez by the survey crew. Survey will be conducted when site is free of ice and snow. Construction staking is not included.
- COV will review and provide comments on the 50% and 95% set of plans. We will schedule a review meeting to discuss and address the comments. Each review meeting will be approximately 1-hour via Teams.
- Quantities and estimates are not included.
- Depending on the level of detail needed to capture the stormwater improvements, we are expecting to produce 50 to 60 sheets in the plan set. There will be a single plan set covering Corbin Creek Neighborhood, Sawmill Drive, Mills Street, and 9th Street.
- Bidding services are not included.
- Grading of the roads is limited to reshaping and improving for proper drainage. The alignment and width of the roads will remain unchanged.



DOWL Project No.: TBD

**Exhibit B to Standard Agreement for Professional Services
Payment Schedule and Reimbursable Expenses**



Project: Valdez Rural Road Repair
Client: City of Valdez
Project or Contract #: TBD
6/19/2025

Prepared By:
N. Conway
 Reviewed By:
L. Chmielowski

Summary

Phase Name	Task	Labor Subtotal		Direct Expenses Subtotal	Subconsultants	Project Totals
		Hours	Cost			
Phase 1 - Survey	1 Topographic Survey and CAD Basemap	-	\$ -	\$ 24,600.00	\$ -	\$ 24,600.00
	2	-	\$ -	\$ -	\$ -	\$ -
	3	-	\$ -	\$ -	\$ -	\$ -
	<input type="checkbox"/> T&M <input checked="" type="checkbox"/> Lump Sum <input type="checkbox"/> Other Subtotal	-	\$ -	\$ 24,600.00	\$ -	\$ 24,600.00
Phase 2 - 50% Design	1 Project Management	6	\$ 1,408.00	\$ -	\$ -	\$ 1,408.00
	2 Design Drawings	-	\$ -	\$ -	\$ -	\$ -
	3 Site Plan Model	30	\$ 5,886.00	\$ -	\$ -	\$ 5,886.00
	4 Grading Model	42	\$ 8,258.00	\$ -	\$ -	\$ 8,258.00
	5 Stormwater Model	30	\$ 5,930.00	\$ -	\$ -	\$ 5,930.00
	6 Cover Sheet	4	\$ 776.00	\$ -	\$ -	\$ 776.00
	7 Survey Control Sheet	2	\$ 388.00	\$ -	\$ -	\$ 388.00
	8 Demolition/Existing Condition Sheet	16	\$ 3,148.00	\$ -	\$ -	\$ 3,148.00
	9 Site Plan Sheet	26	\$ 5,066.00	\$ -	\$ -	\$ 5,066.00
	10 Grading and Stormwater Sheet	38	\$ 7,438.00	\$ -	\$ -	\$ 7,438.00
	11 Sections and Detials Sheet	16	\$ 3,148.00	\$ -	\$ -	\$ 3,148.00
	12 Internal QA/QC	22	\$ 4,852.00	\$ -	\$ -	\$ 4,852.00
	13 COV Review Meeting	3	\$ 693.00	\$ -	\$ -	\$ 693.00
<input type="checkbox"/> T&M <input checked="" type="checkbox"/> Lump Sum <input type="checkbox"/> Other Subtotal	235	\$ 46,991.00	\$ -	\$ -	\$ 46,991.00	
Phase 3 - Construction Docs	1 Project Management	6	\$ 1,408.00	\$ -	\$ -	\$ 1,408.00
	2 Address Comments from COV 50% Design Review	8	\$ 1,574.00	\$ -	\$ -	\$ 1,574.00
	3 Design Drawings	-	\$ -	\$ -	\$ -	\$ -
	4 Site Plan Model	20	\$ 3,924.00	\$ -	\$ -	\$ 3,924.00
	5 Grading Model	34	\$ 6,662.00	\$ -	\$ -	\$ 6,662.00
	6 Stormwater Model	24	\$ 4,700.00	\$ -	\$ -	\$ 4,700.00
	7 Cover Sheet	2	\$ 388.00	\$ -	\$ -	\$ 388.00
	8 Survey Control Sheet	1	\$ 194.00	\$ -	\$ -	\$ 194.00
	9 Demolition/Existing Condition Sheet	10	\$ 1,962.00	\$ -	\$ -	\$ 1,962.00
	10 Site Plan Sheet	20	\$ 3,902.00	\$ -	\$ -	\$ 3,902.00
	11 Grading and Stormwater Sheet	26	\$ 5,066.00	\$ -	\$ -	\$ 5,066.00
	12 Sections and Detials Sheet	6	\$ 1,186.00	\$ -	\$ -	\$ 1,186.00
	13 Internal QA/QC	14	\$ 2,982.00	\$ -	\$ -	\$ 2,982.00
	14 95% COV Review Meeting	3	\$ 693.00	\$ -	\$ -	\$ 693.00
	15 Address COV 95% Comments	6	\$ 1,186.00	\$ -	\$ -	\$ 1,186.00
	16 Internal QA/QC	2	\$ 399.00	\$ -	\$ -	\$ 399.00
<input type="checkbox"/> T&M <input checked="" type="checkbox"/> Lump Sum <input type="checkbox"/> Other Subtotal	182	\$ 36,226.00	\$ -	\$ -	\$ 36,226.00	
TOTAL		417	\$ 83,217.00	\$ 24,600.00	\$ -	\$ 107,817.00