



# MUNICIPAL LIGHT & POWER ENGINEERING DIVISION

MEMORANDUM

RECEIVED

MAR 21 2017

PLANNING DEPARTMENT

**DATE:** March 16, 2017

**TO:** Hal Hart, Planning Division, Community Development Director

**THRU:** Victor Willis, Line Design & Planning Supervisor, ML&P *NEW 3-16-17*  
Gary Agron, Manager of Engineering, ML&P *Pinet Hill Hwy for Gary Agron 3/16/17*

**FROM:** Jake Moe, P.E., Line Design Engineer, ML&P *JM*

**SUBJECT:** Title 21.07.050 – Underground Ordinance: ML&P’s 5-Year Plan

As an owner of electric utility poles in the Anchorage area, ML&P is required by the Municipal Assembly to expend at least two percent of its gross annual retail revenues from sales within the Municipality of Anchorage to remove poles supporting nonconforming overhead utility lines and place the lines underground. ML&P has prepared you eleven (11) copies of the five-year (2017-2021) undergrounding plan for converting existing overhead lines to underground.

In 2016, ML&P completed three large underground projects, “Delaney Street”, “Bannister Drive”, and “4<sup>th</sup>/5<sup>th</sup> Avenue Alley: from A Street to Gambell Street”. On the latter project, a majority of poles remain because an attached utility did not remove their facilities. ML&P cut the top of the pole off and transferred ownership to the remaining attached utility.

Also attached is a document in response to the Planning Departments Administrative Review of ML&P’s 2016-2020 five-year plan and how ML&P will address those in the new proposed plan. ML&P’s response is underlined and in red font.

If you have any questions regarding ML&P’s five-year undergrounding plan, please contact me (263-5407) at your convenience.

cc: Mark A. Johnston, General Manager  
Gary Agron, Chief Engineer  
Victor Willis, Line Design Supervisor  
Mollie Morrison, Finance Manager

Tim Prior, Manager, Operations Division  
Ron Elledge, ACS  
David Blehm, GCI

ML&P's response to the Administrative Review is written below as underlined and in red font.

**DATE:** May 9, 2016  
**TO:** Hal H. Hart, AICP, Director  
**FROM:** Sharon Ferguson, Senior Planner  
**SUBJECT:** **Case 2016-0060; ML&P Five Year Undergrounding Plan for 2016-2020**  
**APPLICANT:** ML&P  
**RECOMMENDATION SUMMARY:** Accepted

Municipal Light & Power is requesting an administrative review of their five year undergrounding plan for 2016-2020. This review is requested per the requirements of AMC 21.07.050F. and 21.07.050G. for Utility Distribution Facilities. The review encompasses the following methodology: review of the applicable Municipal code requirements of AMC 21.07.050F. and 21.07.050G., and Division comments.

**Municipal Code Requirements:**

**21.07.050A. Underground Placement Required for New or Relocated Lines**

1. Except as provided in subsection B. below, all newly installed or relocated utility distribution lines (as defined in section 21.14.040) shall be placed underground.
2. Utility distribution lines owned or operated by utilities that are parties to a joint trench agreement shall be placed underground in a joint trench.
3. Nothing in this section restricts the maintenance, repair, or reinforcement of existing overhead utility distribution lines.

**21.07.050F. Designation of target areas**

1. An electric utility that owns poles that support nonconforming utility distribution lines shall prepare or otherwise include as part of its annual capital improvement plan, a five-year undergrounding program consistent with subsection G. below. This five-year program shall be updated on an annual basis. Priorities shall be based on undergrounding in conjunction with the electric utility's essential system improvements and then by target area as set forth below in no particular order. The director of the planning department shall provide review and comment for consideration by the electric utilities on these five-year programs. When reviewing and commenting on these programs the director shall consider the following factors in no particular order:

- a. Whether undergrounding will avoid or eliminate an unusually heavy concentration of overhead electric distribution or other attached utility facilities.

*Unknown. The submittal does not provide any information with which to evaluate whether the proposed undergrounding “will avoid or eliminate an unusually heavy concentration of overhead electric distribution or other attached utility facilities.” Please provide this information in subsequent submittals.*

ML&P believes that a majority of the projects in the 5-year plan will eliminate an unusually heavy concentration of overhead electric distribution lines. A picture was added to each project in the 5-year plan to show the typical concentration of overhead electric distribution lines in that area.

- b. Whether the street or general area is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic.

*Does Not Comply. Many of the projects are located in residential neighborhoods or the alleys of commercial areas. These projects do not carry either a heavy volume of pedestrian or vehicular traffic.*

ML&P believes that this requirement is being met. In addition to undergrounding along major roads such as Fireweed Lane, Mountain View Drive, and Arctic Boulevard; over \$3.5 million is planned to be spent in the Central Business District. All the areas listed above are believed to be extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic. If the Planning Department still believes that ML&P is not in compliance with this section, could ML&P be provided with vehicular and pedestrian counts for areas where ML&P overhead electric distribution lines exist?

- c. Whether the appearance of grounds and structures adjacent to the roadway is such that the removal of the overhead facilities will substantially improve the general appearance of the area.

*Partially Complies. As noted above, none of the projects will improve roads that carry a heavy volume of pedestrian or vehicular traffic. However, there will be improvement to those residential neighborhoods that are planned for removal of overhead lines and placement of these underground.*

See ML&P comment in section b. above.

- d. Whether the street or area affects a public recreation area or an area of scenic interest.

*Complies. The park environment for Arctic/Benson Park and Mountain View Lions Park will be improved with the undergrounding of the poles and lines. The Arctic Benson project will result in a more visually appealing park with the undergrounding of the lines that currently bisect the park.*

*Views from and into Al Miller Park will be enhanced with the removal of the overhead lines as part of the Delaney Street project. The overhead lines across W. 7<sup>th</sup> Avenue from Nulbay Park will be placed underground improving views in this scenic area. The removal of lines near Elderberry Park will have less impact on the viewshed from the park.*

ML&P has also added a new project, 9<sup>th</sup> Avenue and P Street, which will improve the view shed of Cook Inlet and also remove lines adjacent to the Anchorage Park Strip.

- e. Whether there is a significant opportunity to achieve economies due to the anticipated relocation or replacement of overhead lines or the widening or realignment of streets within a given area.

*Unknown. The Planning Division did not receive comments from MOA Project Management & Engineering as to whether there are any anticipated road projects that may coincide with relocation or replacement of overhead lines.*

ML&P is aware of two projects in the five year plan where PM&E and ML&P have projects in the same area: Arctic & 27<sup>th</sup> Avenue (MOA Proj. # 16-001) and Mt. View Lions Park (MOA Proj. # 10-012). ML&P also encourages MOA Street Maintenance to participate with ML&P projects to upgrade street lighting.

- f. Whether the five-year program sufficiently addresses the objectives of subsection G. below – Nonconforming Overhead Lines.

*Partially Complies. See review below of G. Nonconforming Overhead Lines.*

- g. Whether the area under consideration is within a zone where new and relocated distribution lines are required to be placed underground.

*Complies. The proposed undergrounding involves existing lines that are not required to be relocated and are not new lines which are required to be undergrounded.*

- h. Whether the installation of underground distribution lines is economically, technically and environmentally feasible, including the effect on an attached utility.

*Unknown. The plan does not mention the economic, technical, or environmental feasibility of the proposed undergrounded lines; however, one can presume that the lines are economically and technically feasible if ML&P is proposing to install the lines underground. The environmental effects are unknown.*

*There is no information provided to evaluate the effect on any attached utilities. Subsequent submittals would be improved by noting any effects on the attached utilities.*

ML&P believes the projects proposed are economically and technically feasible. The environmental effects are unknown until a design is actually underway; however ML&P presumes the projects will also be environmentally feasible.

As for the effect of attached utilities, a lack of participation on a particular project is usually blamed as economically unfeasible by the attaching utility. ML&P has hosted multiple meetings with the attached utilities and has encouraged input to shape the Title 21 five year plan so all utilities can have a successful feasible project. No input from attached utilities for future projects have been received from date.

- i. Whether undergrounding will avoid or eliminate overhead electric distribution or other attached utility facilities in a residential area with significant risk exposure to wildfire, high winds, or other natural disaster.

*The submittal from ML&P indicates that the project along Bannister Drive and the bluff area bordering the Chester Creek Greenbelt is according to seismic maps in a Zone 4, high ground failure susceptibility.*

*The submittal indicates that the Glacier Street and 22<sup>nd</sup> Avenue project is located inside the highest wind speed in ML&P territory.*

ML&P also wants to note that the new project added, Logan Street: E. 17<sup>th</sup> to E. 20<sup>th</sup> Ave., contains some of the oldest poles in ML&P territory. These poles are susceptible to failure with high winds. The decision was to either replace the poles or underground the area. The latter was chosen.

- 2. The director shall confirm annually that the electric utilities have developed project undergrounding implementation plans. The director shall consult with the utilities and public agencies affected by any implementation plan. In reviewing implementation plans, the director shall consider the factors stated in subsection F.1. above.**

Complies. Annual plans have been submitted by ML&P since the adoption of the ordinance amendment requirements of March 1, 2005 (AO 2005-02).

**3. The following shall be the target areas:**

- a. Central Business District: between and including Third Avenue and Tenth Avenue and L Street and Ingra Street.

ML&P is aggressively attempting to underground the Central Business District. Over \$3.5 million is planned to be spent within the next 5 years for this target area. With the exception of Gambell Street, it is projected that all ML&P distribution facilities will be underground in the Central Business District by 2025.

- b. Midtown area: between and including New Seward Highway and Minnesota Drive and International Airport Road and Fireweed Lane.

ML&P has three projects that extend into the Midtown area. Over \$3.0 million is planned to be spent within the next 5 years for this target area.

- c. All municipal and state street improvement projects except for those which do not require relocation of utility distribution facilities.

- d. The following major traffic corridors:

- i. Old Seward Highway.

Although not detailed in the 5-year plan, in 2017 ML&P will be removing 2 poles and 5 spans of overhead lines along Old Seward Highway near 36<sup>th</sup> Avenue as part of a ML&P feeder upgrade project.

- ii. Ingra and Gambell Streets between and including Ninth Avenue and Fireweed Lane.

ML&P does not have remaining overhead lines adjacent to Ingra Street. Undergrounding Gambell Street has been found technically unfeasible and unsafe until Alaska Department of Transportation has funding to provide proper lighting of Gambell Street. Existing street lighting exists on about every other pole along Gambell Street.

- iii. Northern Lights Boulevard and Benson Boulevard between and including Glenwood Street and Arlington Drive.

Undergrounding Northern Lights Boulevard has been found economically unfeasible at this time. For that reason ML&P is planning to upgrade the existing poles and circuits along this stretch in 2018. Perhaps a future road project here could make this economically feasible.

- iv. Muldoon Road between and including New Glenn Highway and Patterson Street.

Not in ML&P territory.

- v. Tudor Road between and including Patterson Street and Arctic Boulevard.

All ML&P distribution facilities have been undergrounded along this stretch.

- vi. Boniface Parkway between and including 30th Avenue and New Glenn Highway.

All ML&P distribution facilities have been undergrounded along this stretch.

- vii. Spenard Road between and including Hillcrest Drive and International Airport Road.

All ML&P distribution facilities have been undergrounded along this stretch.

- viii.. Arctic Boulevard between 17th Avenue and Tudor Road.

ML&P has one project that will remove some distribution facilities along Arctic Boulevard, "Arctic & 27<sup>th</sup>". Please note that a majority of the ML&P overhead lines that remain on Arctic Boulevard are transmission facilities and are not required to be undergrounded.

- ix. Lake Otis Parkway between Tudor Road and Abbott Loop

Not in ML&P territory.

- e. All park, recreational use and scenic interest areas.

ML&P has multiple projects that addresses these areas.

- f. Eagle River Central Business District between and including the New Glenn Highway, North Eagle River Access Road, Aurora Street as extended to the Old Glenn Highway and the Old Glenn Highway.

Not in ML&P territory.

- g. Any area where utility distribution facilities are provided by more than one utility as a result of mergers and boundary changes approved by the state public utilities commission.

There is no area where ML&P distribution facilities are providing service to customers which is also provided by another electric utility.

- h. School and university areas.

The “Eureka Street Project” removes overhead lines near North Star Elementary School. The “Glacier Street & 22<sup>nd</sup> Avenue” project removes overhead lines near Zion Lutheran Preschool.

- i. Any residential area with significant risk exposure to wildlife, high winds, or other natural disaster.

The “Glacier Street and 22<sup>nd</sup> Avenue” project is located inside the highest wind speed in ML&P territory.

*Partially Complies. As mentioned previously most of the proposed undergrounding projects do not occur along major traffic corridors. A few projects will occur in or near parks and schools. The Eureka Street/Fireweed Lane project will underground lines along the east side of North Star Elementary School. Parks and schools are included in the target areas. Projects are scheduled that will underground lines in the Central Business District - 3<sup>rd</sup> & 4<sup>th</sup> Alley: Eagle to Ingra. Two projects are proposed in Midtown - Arctic Blvd. & 27<sup>th</sup> and Arctic Benson Park. Both locations (CBD and Midtown) are within Target Areas.*

See notes above responding to each item. Please realize ML&P has received hundreds of requests from ML&P customers to underground their area. Most of the areas requested are residential areas. Also, please realize ML&P can only complete so many projects in five (5) years. ML&P estimates that at the current rate, all ML&P distribution facilities will be undergrounded in 160 to 180 years.

#### **21.07.050G. Nonconforming overhead lines**

1. An electric utility that owns poles that support nonconforming utility distribution lines shall remove the poles and place those lines underground. Any other utility that attaches to such poles shall place its lines underground at the same time that the pole owner places lines underground.

*Does not comply. The five year plan states that “any other utility that attaches to ML&P poles places its lines underground at the same time.” The memorandum from ML&P states that two projects completed in 2015 for Lake Otis & Maple and 8<sup>th</sup>/9<sup>th</sup> Avenue Alley: K Street to C Street, the majority of poles remain because attached utilities did not underground their lines with ML&P. ML&P cut the tops of the poles off and transferred ownership to the attached utilities.*

ML&P does not have the enforcement powers to require an attached utility to comply; however ML&P has gone far and beyond its normal obligations to encourage the participation of the attached utilities. It is recommended that the Planning Department take a more active approach to make this ordinance successful.

- a. The electric utility that owns poles shall, in each fiscal year, expend at least two percent of a three-year average of its annual gross retail revenues derived from utility service connections within the municipality, excluding toll revenues, revenues from sales of natural gas to third parties, and revenues from sales of electric power for resale for purposes of undergrounding nonconforming lines. An electric utility's expenditures, pursuant to AS 42.05.381(h), within the Municipality of Anchorage, shall be counted toward satisfaction of the two percent expenditure required by this subsection.

*Complies. ML&P's report states that the 2% expenditure has been occurring each year as required.*

Please note that ML&P does not include gross retail revenues from sales to the Military as part of the 2% requirement.

- b. A utility with lines attached to a pole that is to be removed under this subsection shall place its lines underground at the same time that the pole owner places its lines underground. To underground nonconforming utility lines, an attached utility shall not be required to expend more than two percent of its annual gross retail revenues derived connections within the municipality, excluding toll revenues. For the purpose of satisfying 21.90.070, the utility's expenditures pursuant to AS 42.05.381(h) within the Municipality of Anchorage are counted toward this two percent expenditure limit.

*Complies. As noted above, the memorandum dated April 1, 2016 notes that attached utilities were not placed underground last year for two projects.*

- c. The electric utility that owns poles may choose which existing lines to underground in order to fulfill the two percent expenditure requirement, in consultation with appropriate public agencies and any other utilities.

*Complies. As stated in the undergrounding plan, ML&P determines which lines to underground, based on a set of factors. The plan notes that an evaluation review sheet is used to assess potential projects and facilities for priority decisions made by a committee. Some of the factors considered in projects evaluations are included in the plan.*

- d. An electric utility that owns poles that does not expend the amount required in subsection A. of this section, or that expends more than that

amount, may carry over the under expenditure or over expenditure as an adjustment to the following year's obligation.

*Complies. The 10-year requirement indicates an under expenditure of \$576,469.22. ML&P will carry-over the under expenditure into 2016. They are projected to spend \$3.4 million in 2016.*

### **Review Agency Comments**

*No agency comments were received.*

### **Division Comments**

*The Division finds that the five year (2016 – 2020) Distribution Facilities Undergrounding Plan from ML&P generally complies in some instances with the requirements and intent of AMC 21.07.050F and 21.07.050G. or the projects are located in areas that are not applicable to the target areas. In other instances, insufficient information was provided to assess compliance as noted above. In the future, the Planning Division requests that more of the undergrounding projects be located in target areas and/or on streets that are extensively used by the general public and carry a heavy volume of pedestrian or vehicular traffic.*

- 1. In subsequent submittals please address the following:*
  - a. Whether undergrounding will avoid or eliminate an unusually heavy concentration of overhead electric distribution or other attached utility facilities*
  - b. Whether the installation of underground distribution lines is economically, technically and environmentally feasible, including the effect on an attached utility.*
- 2. For future plan submittals, please submit eleven copies for distribution to review agencies.*



posi⊕ive ENERGY

**ML&P 5-YEAR PLAN  
2017-2021**

**FOR THE REMOVAL  
OF NON-CONFORMING OVERHEAD LINES  
IN ACCORDANCE WITH MOA TITLE 21.07.050**

## I. INTRODUCTION

Municipal Light and Power, ML&P, has been placing new distribution lines underground since the 1960s and burying existing overhead distribution lines since the early 1980s. On March 1, 2005, the Anchorage Assembly amended Title 21.07.050 to require Anchorage utilities to spend 2% of a three-year rolling average of the utility's annual gross retail revenues derived from utility service connections within the Municipality to underground existing overhead lines with the intent to accelerate the pace of burying existing overhead lines. Today the majority of ML&P's distribution system is underground. Pursuant to the Municipal Ordinance, ML&P annually develops a five-year plan which is submitted to the Municipal Planning Department for review and comment. The Plan identifies the location of lines anticipated to be buried in the coming five years. Some overhead distribution lines may never be buried due to conditions such as safety, soil conditions, and/or steep terrain. Electric lines of 69,000 volts and higher, considered Transmission, and are not required to be buried due to excessive cost and technical reasons at this point in industry development. Also, any other utility that attaches to ML&P poles is supposed to place its lines underground at the same time as per the Title 21 Ordinance. For more information, including answers to frequently asked questions, please visit the ML&P Underground webpage at <https://www.mlandp.com/News/Projects-Construction/Undergrounding>

## II. PROJECT SELECTION

ML&P has set up a Title 21.07.050 Review Committee to identify potential projects to be included in its Five Year Plan. Decisions concerning which lines shall be buried and when depend on numerous factors. An evaluation review sheet is used that assesses potential projects and facilitates project priority decisions for the Committee. Some factors considered in project evaluations are:

- If there is an electrical system betterment derived that improves system condition or is required to meet forecasted load growth
- Where there are National Electrical Safety Code, NESC, issues can be improved by removing overhead lines
- Age of the facilities in the proposed project area
- View shed areas or areas with a high degree of public visibility
- Demonstrated neighborhood desire and support for a project
- Where other undergrounding project opportunities arise in conjunction with road or sewer/water projects or projects of other "wire" utilities
- Where undergrounding would eliminate an unusually heavy concentration of overhead electric lines.
- Where the street or general area is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic

## III. PROJECT LISTING

The following spreadsheet lists the projects ML&P has identified for undergrounding within the next 5 years. Projects that were started but not completed last year will be completed during the following summer. Summary sheets are included for each project that identifies the general area where conversion from overhead to underground facilities is expected. As much as ML&P would like this five-year plan to be static, there are circumstances where other necessary but

unforeseen projects may preempt and change the anticipated timing of any project listed in any Five Year Plan.

#### IV. FUTURE PROJECT CONSIDERATIONS

ML&P receives requests for undergrounding from diversified sources. The requests that did not make the current five year plan will remain on ML&P's list of potential undergrounding project for re-evaluation each year. These projects are listed below in alphabetical order.

##### DESCRIPTION

9<sup>th</sup>/10<sup>th</sup> Alley: Cordova to Karluk  
 10<sup>th</sup>/11<sup>th</sup> Alley: P Street to L Street  
 11<sup>th</sup> & C Street  
 11<sup>th</sup> Alley – A Street to Cordova  
 11<sup>th</sup>/13<sup>th</sup>: Cordova to Gambell  
 12<sup>th</sup> Ave: U Street to P Street  
 13<sup>th</sup> & P Street  
 14<sup>th</sup> & N Street  
 15<sup>th</sup> & LaTouche  
 16<sup>th</sup> & K Street  
 20<sup>th</sup> & Norene Street  
 24<sup>th</sup> & Glacier Street  
 40<sup>th</sup> & Wright Street  
 42<sup>nd</sup> & Arctic Street  
 42<sup>nd</sup> & Brantley  
 Airport Heights Road  
 Airport Heights School – 16<sup>th</sup> & Alder  
 Alder Drive & 17<sup>th</sup> Ave  
 Arctic Blvd. to Aurora St. -19<sup>th</sup> to 22<sup>nd</sup>  
 B Street – 40<sup>th</sup> to Tudor  
 Barrow – 26<sup>th</sup> Avenue  
 Carlson Park - Stanford & Cornell Drive  
 College Gate Elementary - 30<sup>th</sup> & Boniface  
 Columbine Street - 16<sup>th</sup> to Debarr  
 Cornell Court – Emory St.  
 Cottonwood & Glennwood  
 Culver Place – 22<sup>nd</sup> to 24<sup>th</sup>  
 Eide St. & 33<sup>rd</sup> Ave  
 Esquire/Forest Park Alley

##### DESCRIPTION

Fairbanks & Gambell alley, near Fireweed  
 Frontierland Park - 10<sup>th</sup> & E Street  
 Gambell Street – 3<sup>rd</sup> to 16<sup>th</sup> Ave  
 Garden Street - 15<sup>th</sup> & Sunrise Dr.  
 Hillcrest Drive, east of Spenard  
 Hollywood & Elm Street  
 Hyder & 14<sup>th</sup> Avenue  
 Inlet View Elementary – 12<sup>th</sup> & Inlet  
 Kanchee Park - 3<sup>rd</sup> & Klevin  
 Karluk Street – 4<sup>th</sup> to 10<sup>th</sup>  
 Lawarance Court  
 Lynn Drive & 40<sup>th</sup>  
 Maplewood & 26<sup>th</sup>  
 Maplewood/24<sup>th</sup> Trailhead  
 Mt. View Lions Park  
 Needle Circle  
 North Star Street & 23<sup>rd</sup> Ave  
 Old Seward – Tudor to 36<sup>th</sup>  
 Orca Street: Merrill Field  
 Park Street & 3<sup>rd</sup> Avenue  
 Parkdale West Condos - 19<sup>th</sup> & Arctic  
 Rogers Park Elementary–N.L. & LaTouche  
 Salem Drive near MacInnes Street  
 Seaforth Place to MacInnes Street  
 Talkeetna & 17<sup>th</sup>  
 Thompson Ave- Bragaw St. to Pine St  
 Tudor & 42<sup>nd</sup> Alley  
 Valley of the Moon Park – 17<sup>th</sup> & Arctic  
 Winterset Drive near 36<sup>th</sup>  
 Wonder Park School – 4<sup>th</sup> & Boniface

MLP ENGINEERING  
MOA TITLE 21.07.050 - NON-CONFORMING OVERHEAD LINES REMOVAL  
5-YEAR PLAN 2017 TO 2021

2016				2017				2018				2019				2020				2021			
Title 21 Requirement (1000) = \$2,492.6		Title 21 Requirement (1000) = \$2,837.0		Title 21 Requirement (1000) = \$3,244.2		Title 21 Requirement (1000) = \$3,601.1		Title 21 Requirement (1000) = \$3,600.0		Title 21 Requirement (1000) = \$3,600.0		Title 21 Requirement (1000) = \$3,600.0		Title 21 Requirement (1000) = \$3,600.0		Title 21 Requirement (1000) = \$3,600.0		Title 21 Requirement (1000) = \$3,600.0		Title 21 Requirement (1000) = \$3,600.0			
Debit or (Credit) from 2015	Debit	Debit	Debit	Debit or (Credit) from 2016	Debit	Debit	Debit	Debit or (Credit) from 2017	Debit	Debit	Debit	Debit or (Credit) from 2018	Debit	Debit	Debit or (Credit) from 2019	Debit	Debit	Debit or (Credit) from 2020	Debit	Debit	Debit		
Funding Available to Spend				Funding Available to Spend				Funding Available to Spend				Funding Available to Spend			Funding Available to Spend			Funding Available to Spend			Funding Available to Spend		
Proposed Projects	W.O.	Proj Cost (\$1000)	W.O.	Proposed Projects	W.O.	Proj Cost (\$1000)	W.O.	Proposed Projects	W.O.	Proj Cost (\$1000)	W.O.	Proposed Projects	W.O.	Proj Cost (\$1000)	W.O.	Proposed Projects	W.O.	Proposed Projects	W.O.	Proj Cost (\$1000)	W.O.	Proposed Projects	
Misc. Annual Constr.		\$144.9		Misc. Annual Constr.		\$300.0		Misc. Annual Constr.		\$300.0		Misc. Annual Constr.		\$350.0		Misc. Annual Constr.		Misc. Annual Constr.		\$400.0		Misc. Annual Constr.	
Eureka Drive - D & IC	11615	\$155.9	11615	Eureka Drive - OC	11615	\$1,900.0		Mt. View Lions Park - D		\$50.0		Mt. View Lions Park - IC		\$100.0		Glacier St. & 22nd Ave - D		Glacier St. & 22nd Ave - IC		\$300.0		Glacier St. & 22nd Ave - IC	
3/4 Alley - Eagle to Ingra - D	11717	\$11.7	11717	3/4 Alley - Eagle to Ingra - IC & OC	11717	\$1,000.0		Mt. View Lions Park - D		\$50.0		Mt. View Lions Park - IC		\$100.0		Mt. View Lions Park - OC		Mt. View Lions Park - OC		\$1,350.0		Logan Street - D	
Delaney St - OC	11305	\$725.9		Arctic & 27th - D		\$50.0		Arctic & 27th - IC		\$300.0		Arctic & 27th - OC		\$1,900.0		Arctic & 27th - OC		Arctic to Aurora - IC		\$400.0		Arctic to Aurora - IC	
Bannister Drive - OC	11450	\$1,457.5		Arctic Benson Park - D		\$50.0		Arctic Benson Park - IC		\$150.0		Arctic Benson Park - OC		\$400.0		Arctic to Aurora - D		Arctic to Aurora - IC		\$150.0		Arctic to Aurora - IC	
Bootleggers Cove - D	11715	\$8.1		Bootleggers Cove - IC	11715	\$225.0		Bootleggers Cove - OC	11715	\$1,900.0		Arctic to Aurora - D		\$150.0		Arctic to Aurora - D		Arctic to Aurora - IC		\$500.0		Arctic to Aurora - OC	
CBD 4KV Cleanup: 4/5 Alley: A to Gambell	11390	\$482.9		CBD 4KV Cleanup: 8/9 Alley: A to Hyder	11714	\$500.0		CBD 4KV Cleanup: 3rd Ave: Barrow to Ingra		\$500.0		CBD Cleanup		\$500.0		CBD Cleanup		CBD Cleanup		\$500.0		CBD Cleanup	
Project Sub-Total		\$2,987.0		Project Sub-Total		\$4,025.0		Project Sub-Total		\$3,200.0		Project Sub-Total		\$3,400.0		Project Sub-Total		Project Sub-Total		\$3,050.0		Project Sub-Total	
Remaining T-21 Funds		\$1,022.0		Remaining T-21 Funds		-\$166.0		Remaining T-21 Funds		-\$121.7		Remaining T-21 Funds		\$79.4		Remaining T-21 Funds		Remaining T-21 Funds		\$629.4		Remaining T-21 Funds	

NOTES:  
 1. Projects listed are for planning purposes only. A listed project does not guarantee the project will be constructed in that respective year.  
 2. Costs for 2016 are actual as of 12/31/2016 Project Cost Reporting, all other chart amounts are estimated.  
 3. End of year construction for 2016 is expected to be greater than YTD. Actual money spent in 2016 will be reconciled in the first quarter of 2017.  
 4. Misc. Annual Constr. = Blanket Workorders (ex. overhead service retirements and a percentage of new services)  
 5. IC = Inside Conversion Expense. OC = Outside Construction Expense D = Design Expense

Proposed expenditures: \$16,903.0  
 Five-year requirement: \$16,882.4  
 Debit or (Credit) carry over for year 2022 and on (\$20.6)

# TITLE 21 PROJECT

## Delaney Street

Government Hill Community Council: West Government Hill Subdivision



**ML&P**

positiveENERGY

PROJECT COMPLETED: 2016

This project undergrounded over 3,500 feet of electric lines and removed 18 poles in the west side of Government Hill Neighborhood. This project was in the Target Area as it encompasses Al Miller Memorial Park, as well as two scenic interest areas: Brown's Point Park and Suzan Nightingale McKay Park. MOA Street Maintenance participated with ML&P on this project and installed new LED lighting.



VICINITY MAP



### Legend

- Overhead line undergrounded
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid Map No: 1130

# TITLE 21 PROJECT

## Delaney Street

Government Hill Community Council: West Government Hill Subdivision

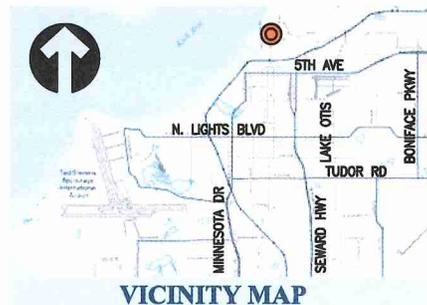


**ML&P**

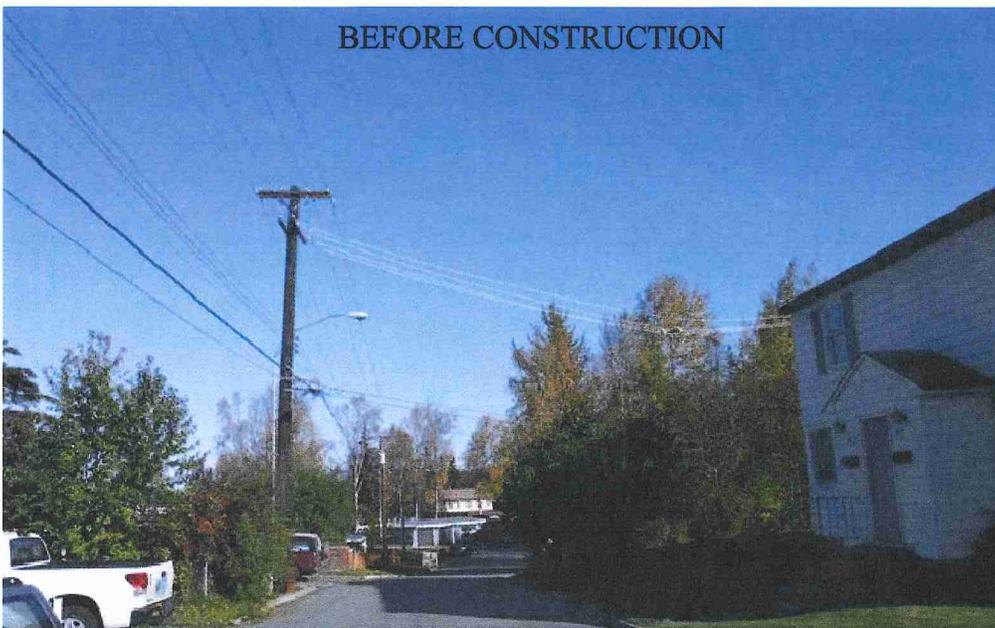
posi+iveENERGY

### BEFORE & AFTER PHOTOS

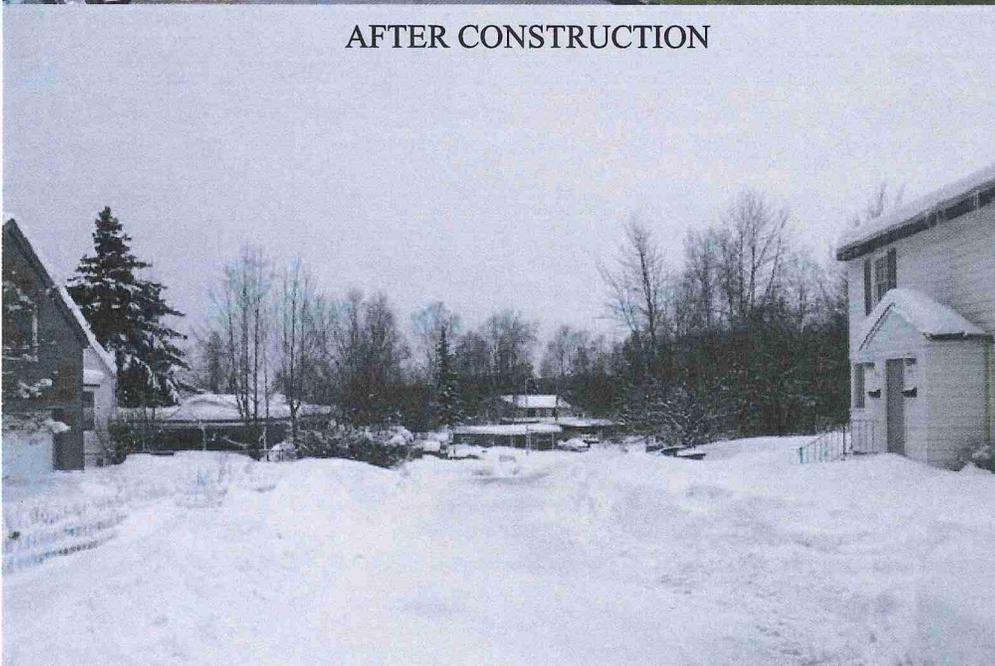
Photos taken facing north near the Delaney Street and West Manor Avenue intersection.



BEFORE CONSTRUCTION



AFTER CONSTRUCTION



For additional information contact Jake Moe (ML&P) 263-5407

Grid Map No: 1130

# TITLE 21 PROJECT

## Bannister Drive

Rogers Park Community Council: Rogers Park Subdivision



**ML&P**

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### PROJECT COMPLETED: 2016

This project undergrounded over 13,000 feet of electric lines and removed 51 poles along Bannister Drive from LaTouche to Galewood Street and from Fireweed north to Chester Creek. This project was in the Target Area as it was in the Chester Creek Greenbelt and went through a park near E. 20th Avenue. The project also removed lines located on a bluff which MOA designated as high ground failure susceptibility. MOA Street Maintenance participated with ML&P on the project and installed LED lighting.



VICINITY MAP



#### Legend

-  Overhead line undergrounded
-  Overhead line to remain
-  Existing Underground line
-  Project location on Vicinity Map
-  Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grids: 1532 & 1533

# TITLE 21 PROJECT

## Bannister Drive

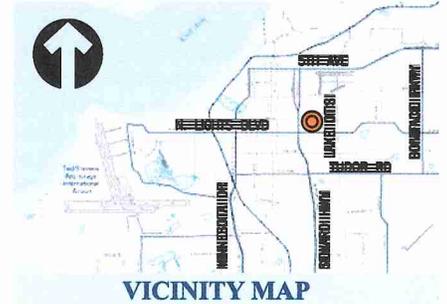
Rogers Park Community Council: Rogers Park Subdivision



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### BEFORE & AFTER PHOTOS

These before and after photos were taken facing northeast of an area just north of the Bannister Drive and Galewood Street intersection. The before photo shows a tree looking to fall on the overhead lines. The after photo shows a tree that fell during a September Windstorm but since the lines were undergrounded a major outage in Rogers Park was avoided.



# TITLE 21 PROJECT

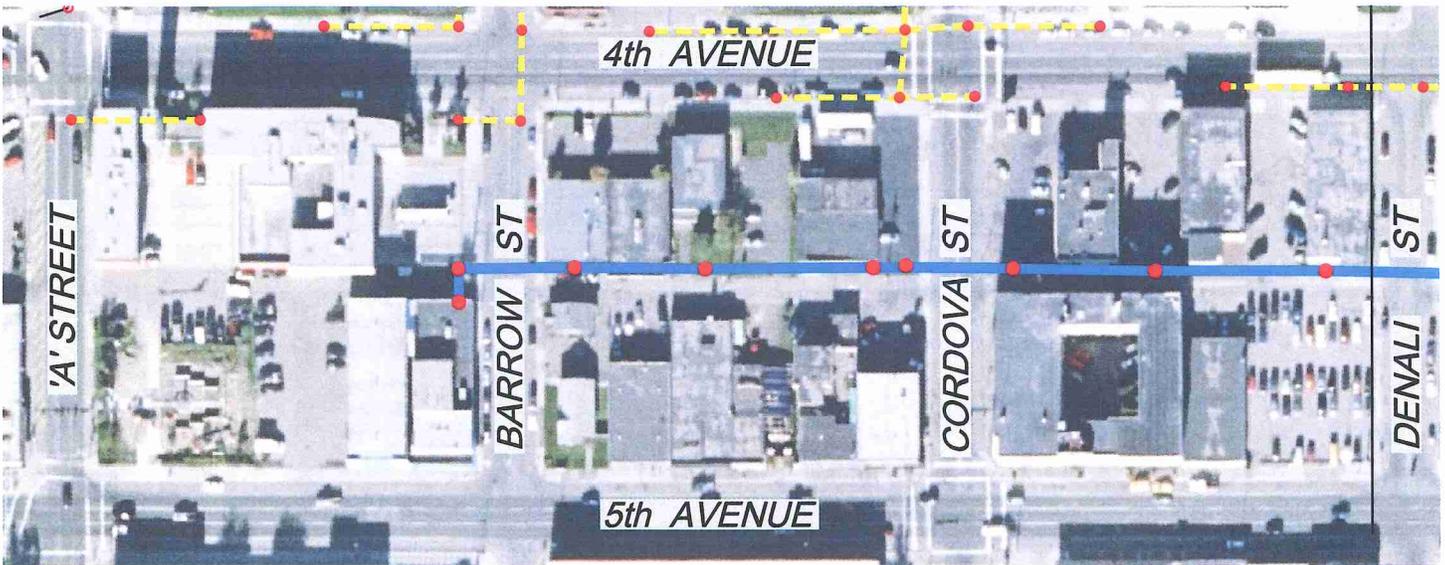
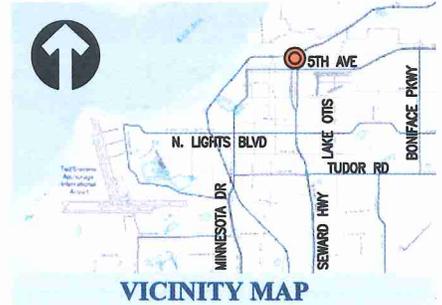
4th & 5th Alley: A Street to Gambell Street  
 Downtown Community Council: Original Anchorage Townsite



**ML&P**  
 posi+iveENERGY

PROJECT COMPLETED: 2016

Photos taken facing west down the 4th and 5th Avenue Alley at Denali Street. Tops of poles were cut off so communication lines remain.



**Legend**

- Overhead line undergrounded
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1231

# TITLE 21 PROJECT

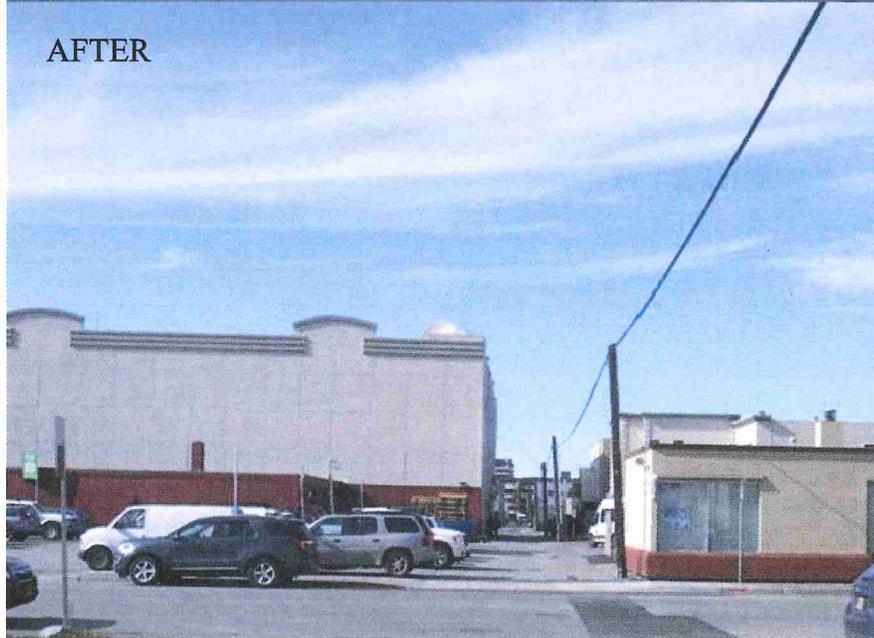
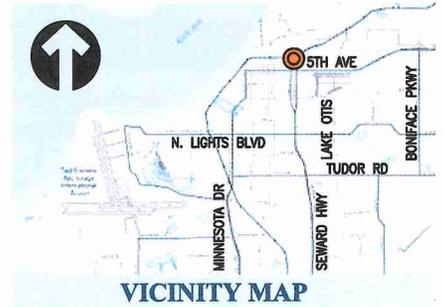
4th & 5th Alley: A Street to Gambell Street  
Downtown Community Council: Original Anchorage Townsite



**ML&P**  
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## BEFORE & AFTER PHOTOS

Photos taken facing west down the 4th and 5th Avenue Alley at Denali Street. Tops of poles were cut off so communication lines remain.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1231

# TITLE 21 PROJECT

## Eureka Street/Fireweed Lane

North Star Community Council: Wharton Subdivision



**ML&P**

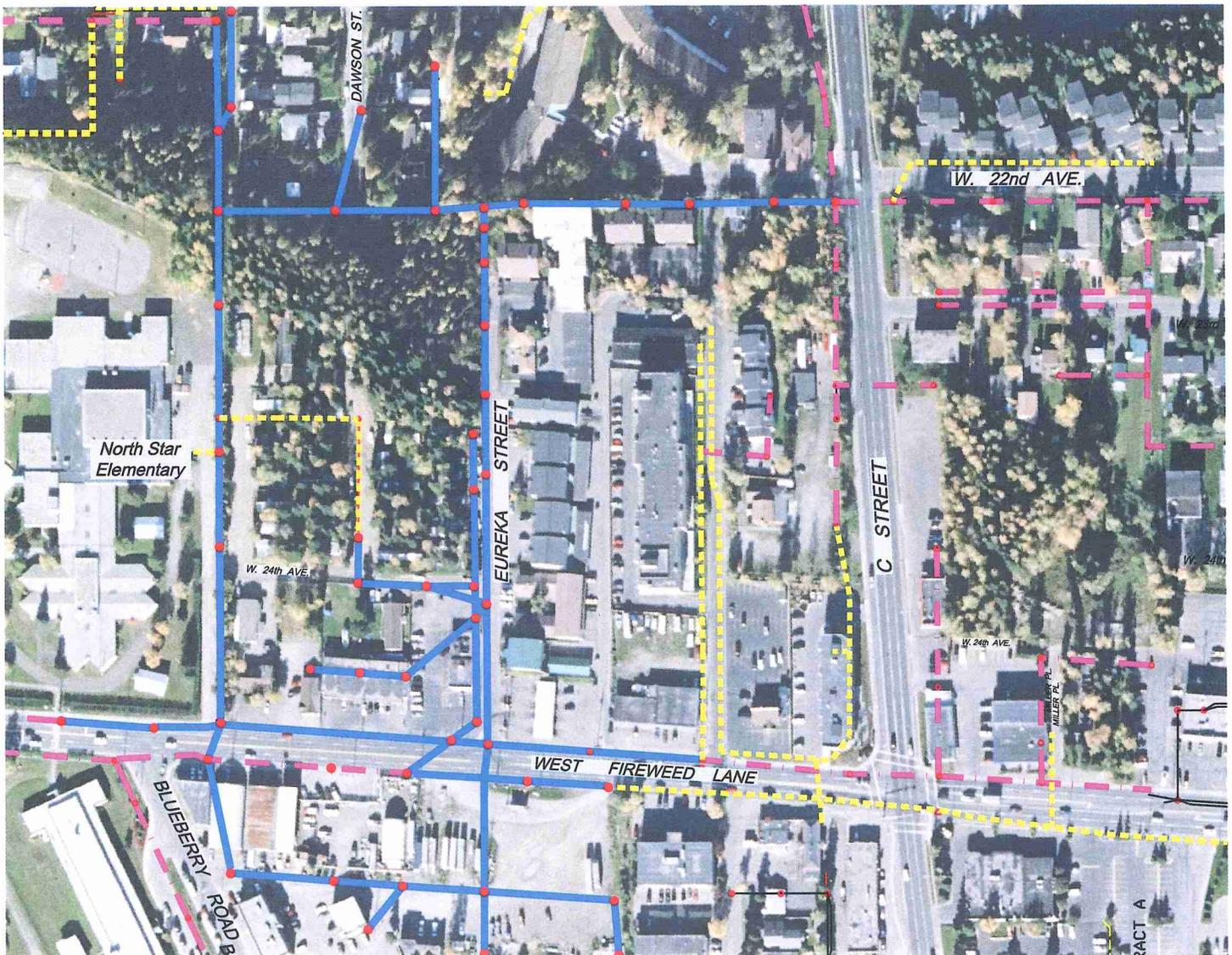
positiveENERGY

### PROJECT DESCRIPTION

This project will underground overhead conductors in the Fireweed Lane area centered around Eureka Street. This project is in the Target Area described in the Title 21 Underground Ordinance because it will remove overhead lines adjacent to a school site, North Star Elementary, and because a portion is in the area described as Mid-town.



VICINITY MAP



#### Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1530

# TITLE 21 PROJECT

Eureka Street/Fireweed Lane

North Star Community Council: Wharton Subdivision

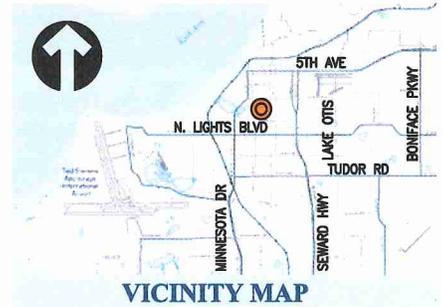


**ML&P**

positiveENERGY

## EXISTING PHOTO

Photo taken facing south down Eureka Street near the intersection of Eureka Street and West 24th Avenue.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1530

# TITLE 21 PROJECT

## 3rd & 4th Alley: Eagle to Ingra

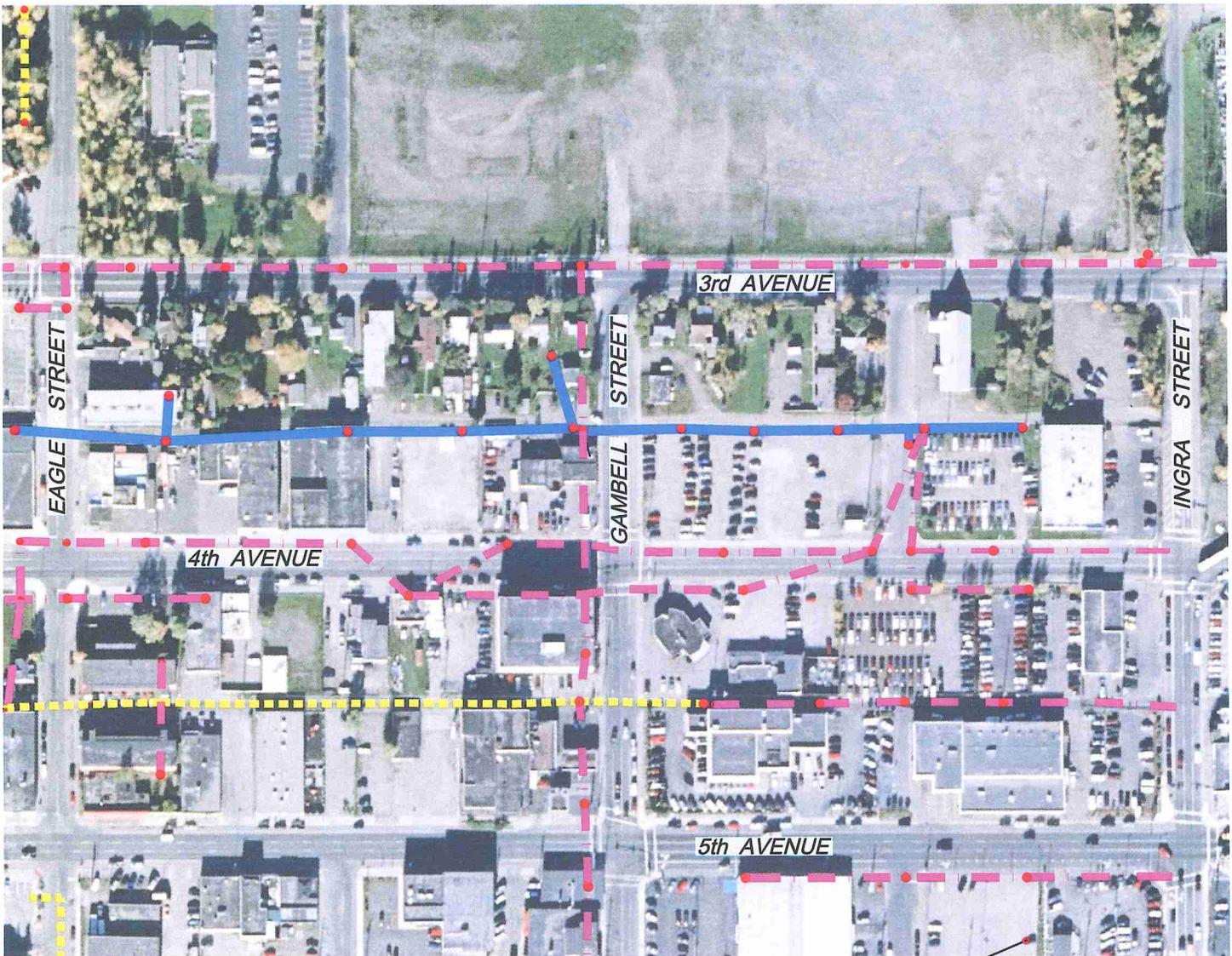
Downtown Community Council: Anchorage Townsite East Addition Subdivision



**ML&P**  
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### PROJECT DESCRIPTION

This project will underground overhead power lines in the alley between 3rd & 4th Avenues extending from Eagle Street to Ingra Street. This line is currently on the 4.16kV system but will be upgraded to the 34.5kV or 12.47kV system when it goes underground. This project is in the target Area described in the Title 21 Underground Ordinance because it is located in the Central Business District. Also undergrounding lines that are tapped from the Gambell Street Utility Corridor will allow Gambell Street to one day be undergrounded.



#### Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1231

# TITLE 21 PROJECT

## 3rd & 4th Alley: Eagle to Ingra

Downtown Community Council: Anchorage Townsite East Addition Subdivision

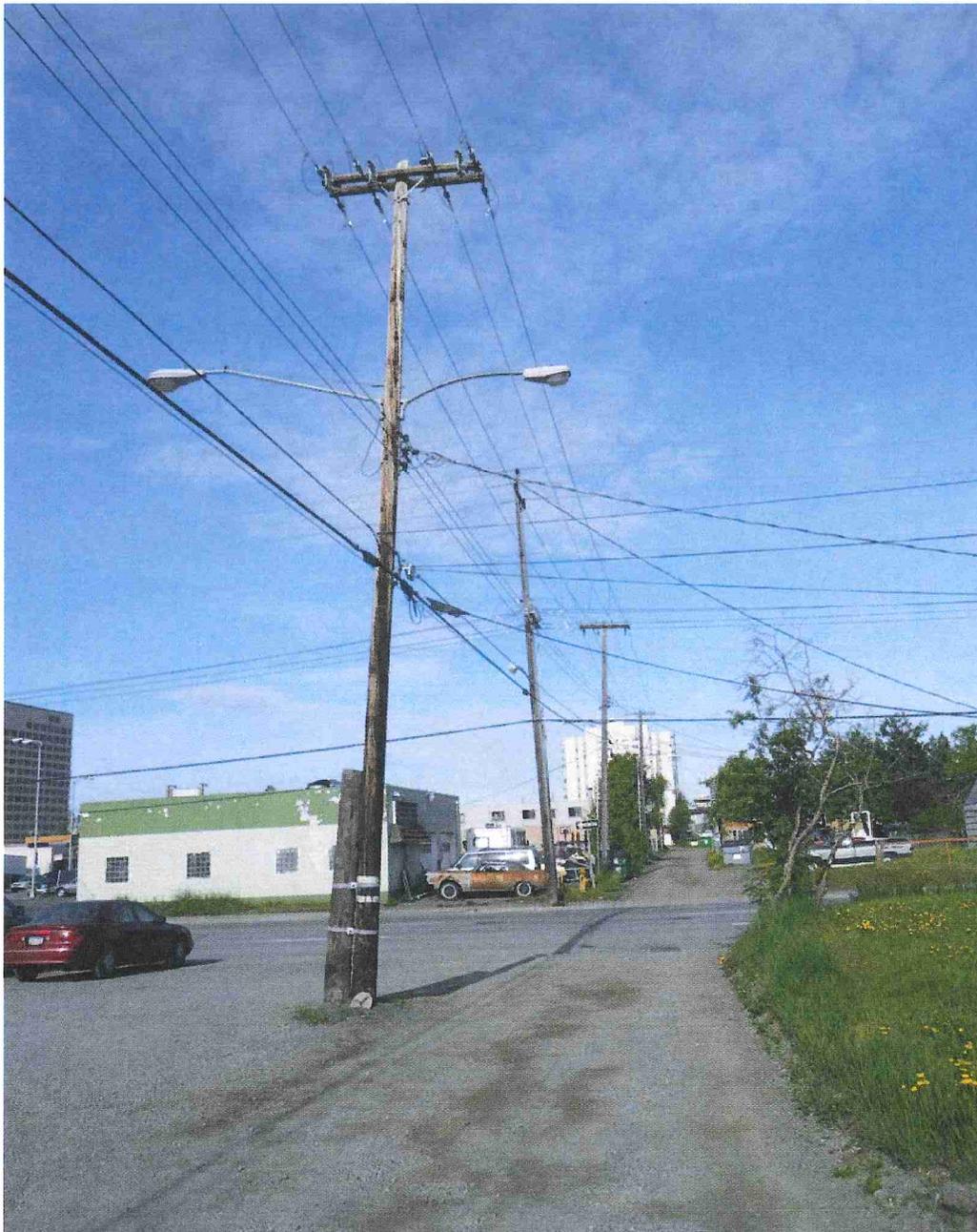
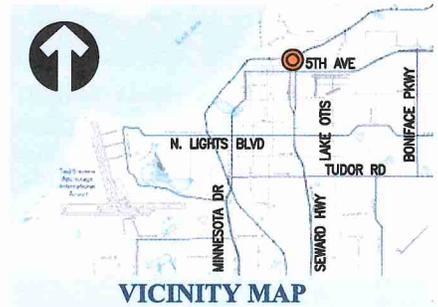


**ML&P**

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### EXISTING PHOTO

Photo taken facing west down the 3rd and 4th Alley near Gambell Street.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1231

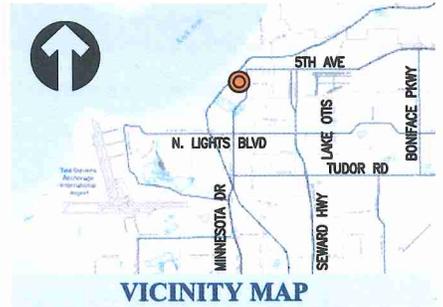
# TITLE 21 PROJECT Bootleggers Cove

South Addition Community Council: L Street Slide Replat Subdivision



## PROJECT DESCRIPTION

The first lines to underground begin at 5th Avenue and Pacific Place continuing south to 7th and up the bluff to 8th Avenue. The next two segments to underground are contingent on the acquisition of the necessary easements. One segment begins at 7th Avenue and Pacific Place and extends west to 'O' Place. The other segment begins on 7th at the alley between 'N' and 'O' Streets and terminates at the north end of the alley. This project is in the Target Area described in the Title 21 Underground Ordinance due to the proximity of two parks: Elderberry Park and Nulbay Park.



### Legend

-  Overhead line to be underground
-  Overhead line to remain
-  Existing Underground line
-  Project location on Vicinity Map
-  Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grids: 1229 & 1329

# TITLE 21 PROJECT Bootleggers Cove

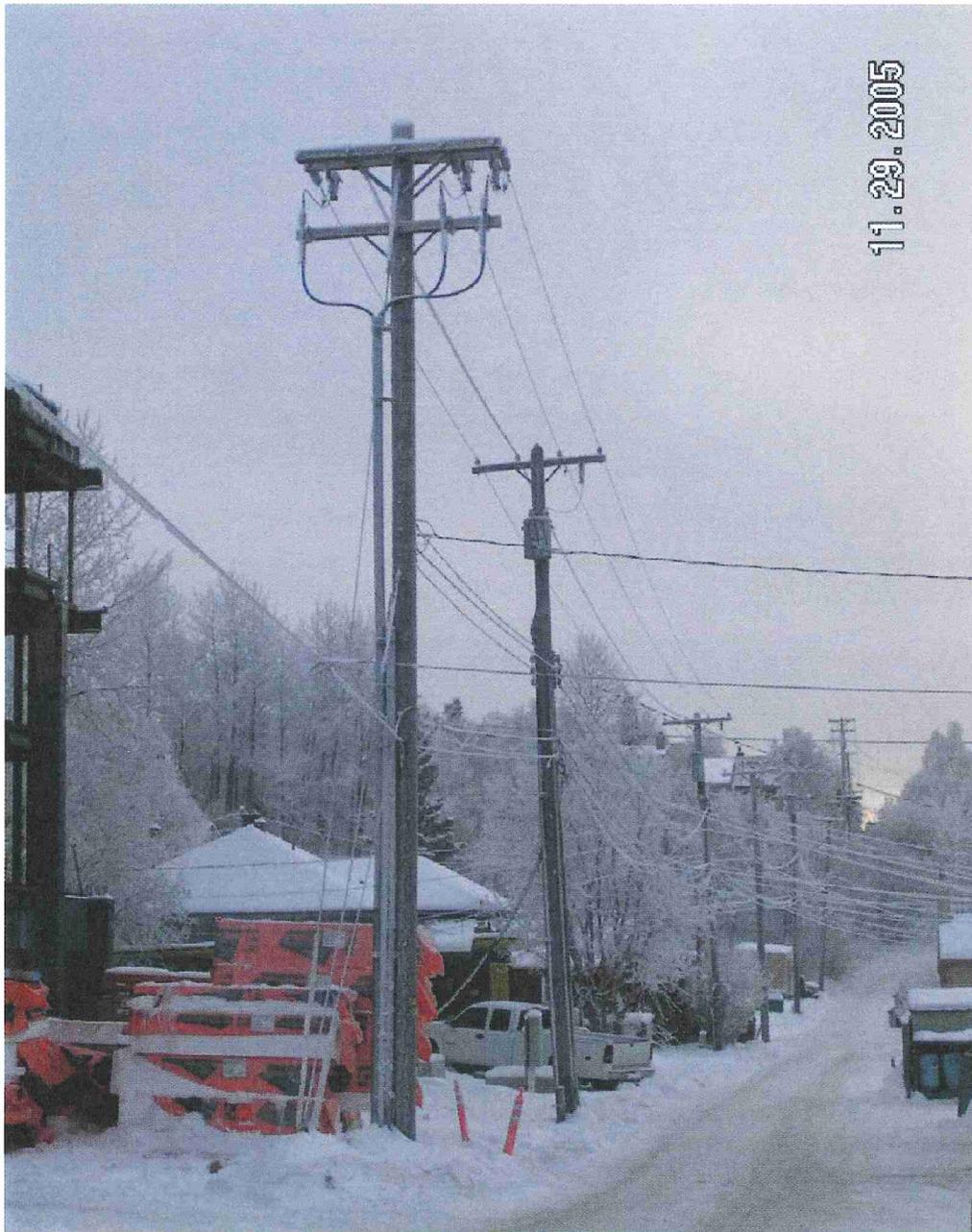
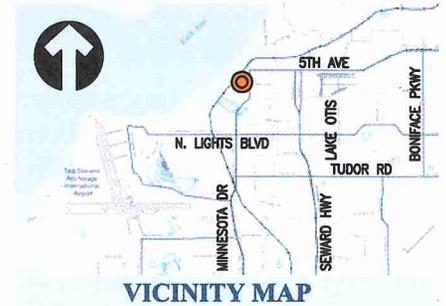
South Addition Community Council: L Street Slide Replat Subdivision



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## EXISTING PHOTO

Photo taken facing south down Pacific Place near the intersection of Pacific Place and West 5th Avenue.



For additional information contact Jake Moe (ML&P) 263-5407

Grids: 1229 & 1329

# TITLE 21 PROJECT

Arctic Blvd & 27th

Spenard Community Council: Sunbeam Subdivision



**ML&P**

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## PROJECT DESCRIPTION

This project will underground overhead conductors in back lot lines of 27th Avenue and the primary line on 27th Avenue. Transformers and pedestals will be installed as necessary to serve the residences affected by the removal of poles from 1529-62H to 1529-92E and from 1529-62A to 1529-92D and from 1529-61D to 1529-91H. This project is in a Target Area described in the Title 21 Underground Ordinance because it is in the area described as Mid-town.



VICINITY MAP



### Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1529

# TITLE 21 PROJECT

Arctic Blvd & 27th

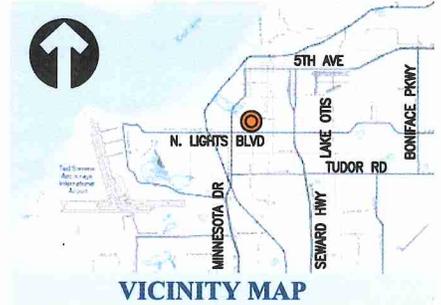
Spenard Community Council: Sunbeam Subdivision



**ML&P**  
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## EXISTING PHOTO

Photo taken west down 27th Avenue between Arctic Boulevard and Spenard Road.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1529

# TITLE 21 PROJECT

## Arctic Benson Park

Midtown Community Council: Bel Aire Subdivision



**ML&P**

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### PROJECT DESCRIPTION

This project will start at 31st Avenue and underground south through Arctic Benson Park, across 32nd Avenue and in the alley between Arctic Blvd. and Bering Street. Street light lines in the park will also be underground. This project is in the Target Area described in the Title 21 Underground Ordinance because it will remove overhead lines that go through a park and is in the area described as Mid-town. Additionally, MOA Parks and Recreation has requested that this line be underground.



VICINITY MAP



#### Legend

-  Overhead line to be underground
-  Overhead line to remain
-  Existing Underground line
-  Project location on Vicinity Map
-  Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1630

# TITLE 21 PROJECT

## Arctic Benson Park

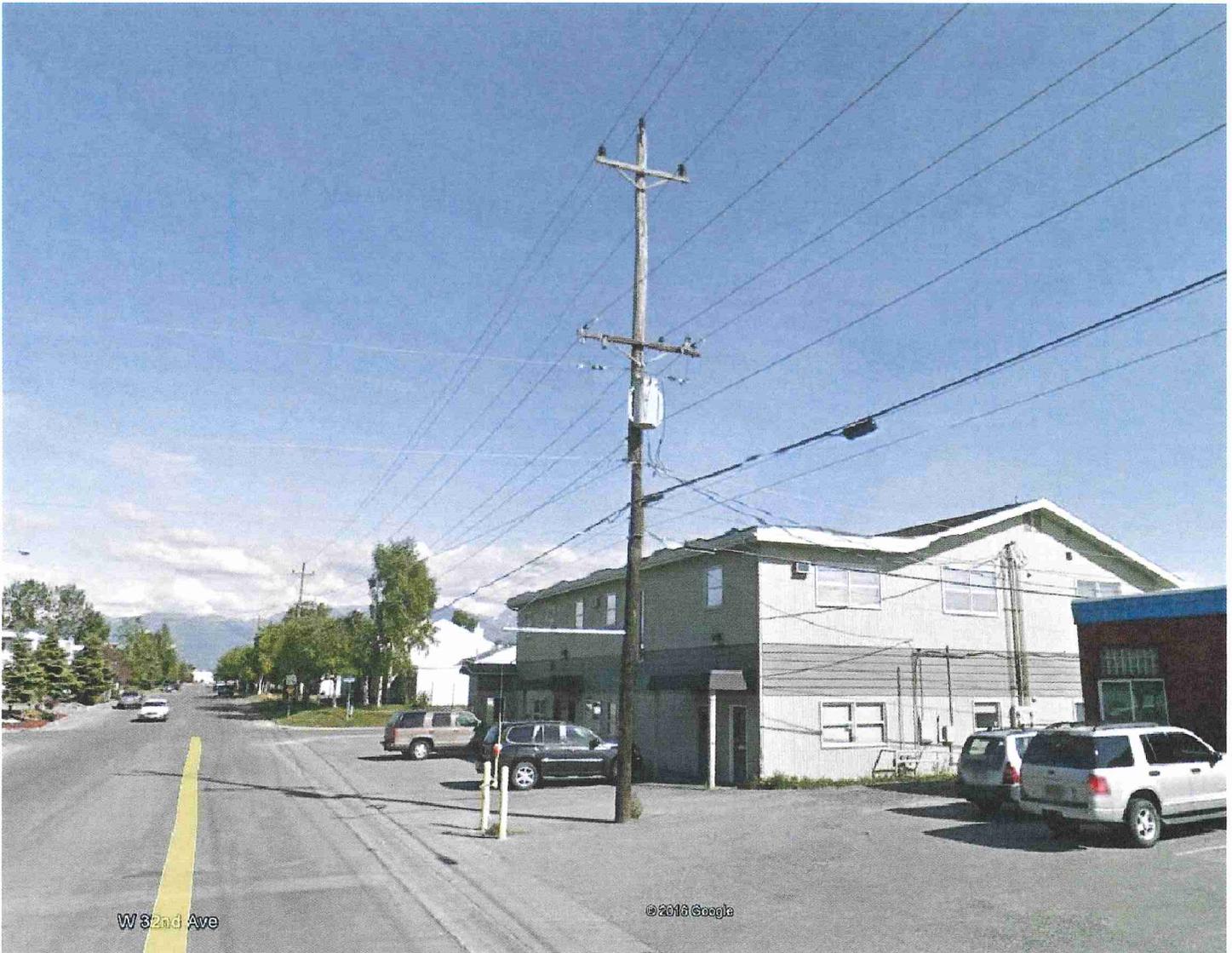
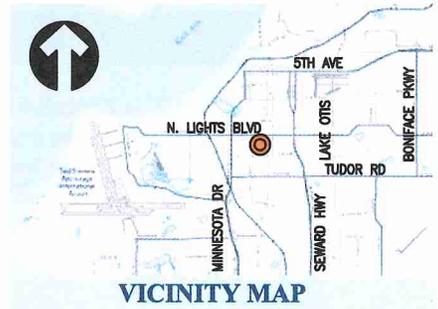
Midtown Community Council: Bel Aire Subdivision



**ML&P**  
positiveENERGY

### EXISTING PHOTO

Photo taken facing east down West 32nd Avenue near the intersection of Arctic Boulevard and West 32nd Avenue.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1630

# TITLE 21 PROJECT

## Mountain View Lions Park

Mountain View Community Council: Military Reserve Subdivision

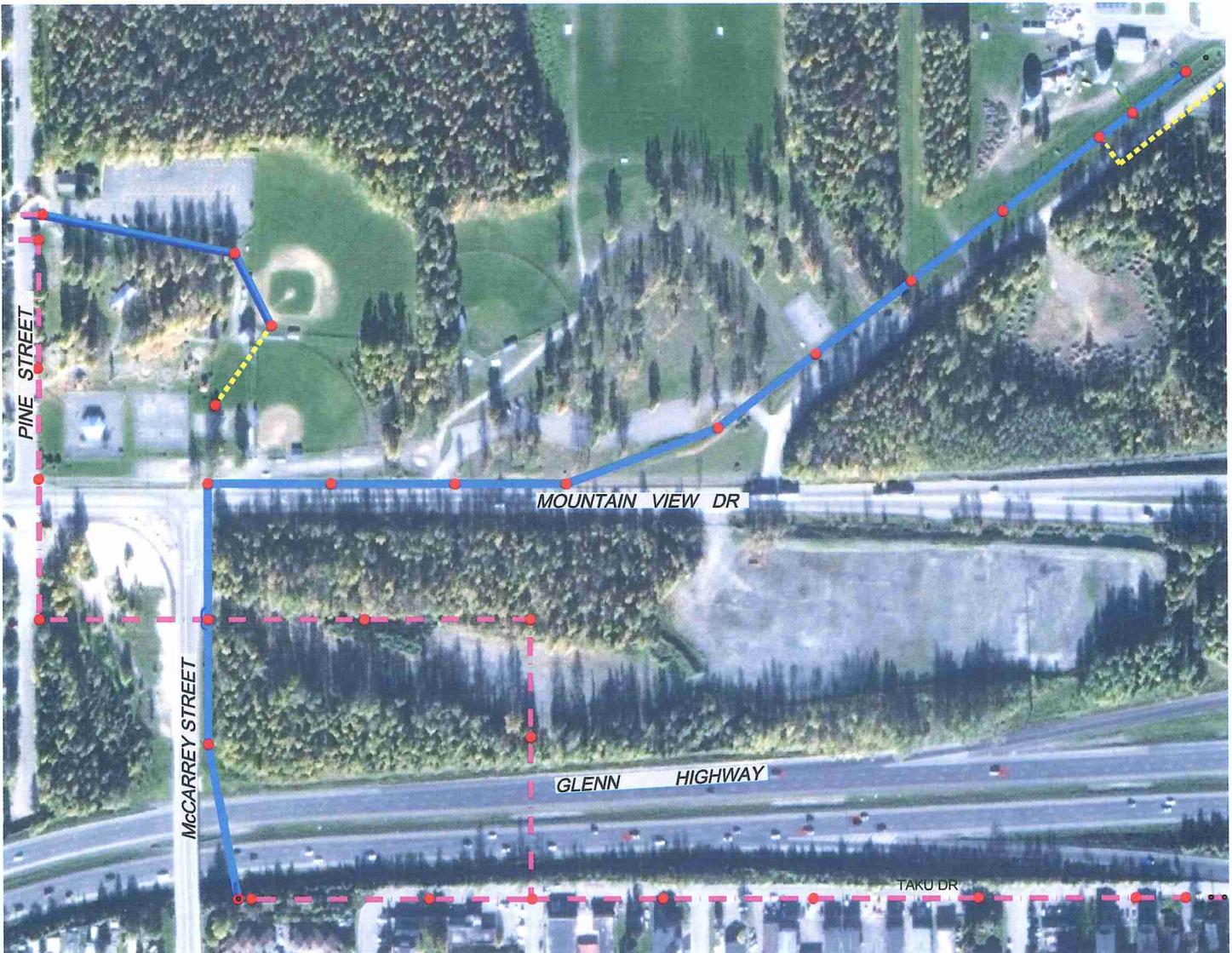


# ML&P

positiveENERGY

### PROJECT DESCRIPTION

This project will underground overhead power lines along McCarrey Street and Mountain View Drive. Overhead lines are currently located in the park and overhead structures disrupt audience seating arrangements of baseball games on the north field. This project is anticipated to occur simultaneously as the MOA Intersection Improvement Project at McCarrey Street and Mountain View Drive. This project is a top priority for the Mt. View Community Council. This project is the Target Area described in the Title 21 Underground Ordinance because the overhead lines are in a park.



#### Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1237

# TITLE 21 PROJECT

## Mountain View Lions Park

Mountain View Community Council: Military Reserve Subdivision

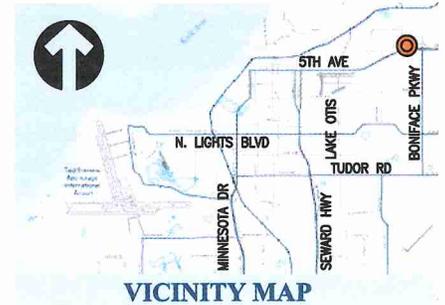


**ML&P**

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### EXISTING PHOTO

Photo taken facing north near Blackburn Field in Lions Park. Notice downguy disrupts viewing from spectators to the ball field.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1237

# TITLE 21 PROJECT

Arctic to Aurora

North Star Community Council: Thompson Subdivision



**ML&P**

positiveENERGY

## PROJECT DESCRIPTION

This project will underground power lines in the neighborhood east of Arctic Blvd., south of 19th Avenue, north of 22nd Avenue and west of Aurora Drive. Currently there are access issues as the lines are located in backyards. This project has been requested by the neighborhood and is the top priority underground project in the North Star Community Council.



### Legend

-  Overhead line to be underground
-  Overhead line to remain
-  Existing Underground line
-  Project location on Vicinity Map
-  Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1430 & 1530

# TITLE 21 PROJECT

Arctic to Aurora

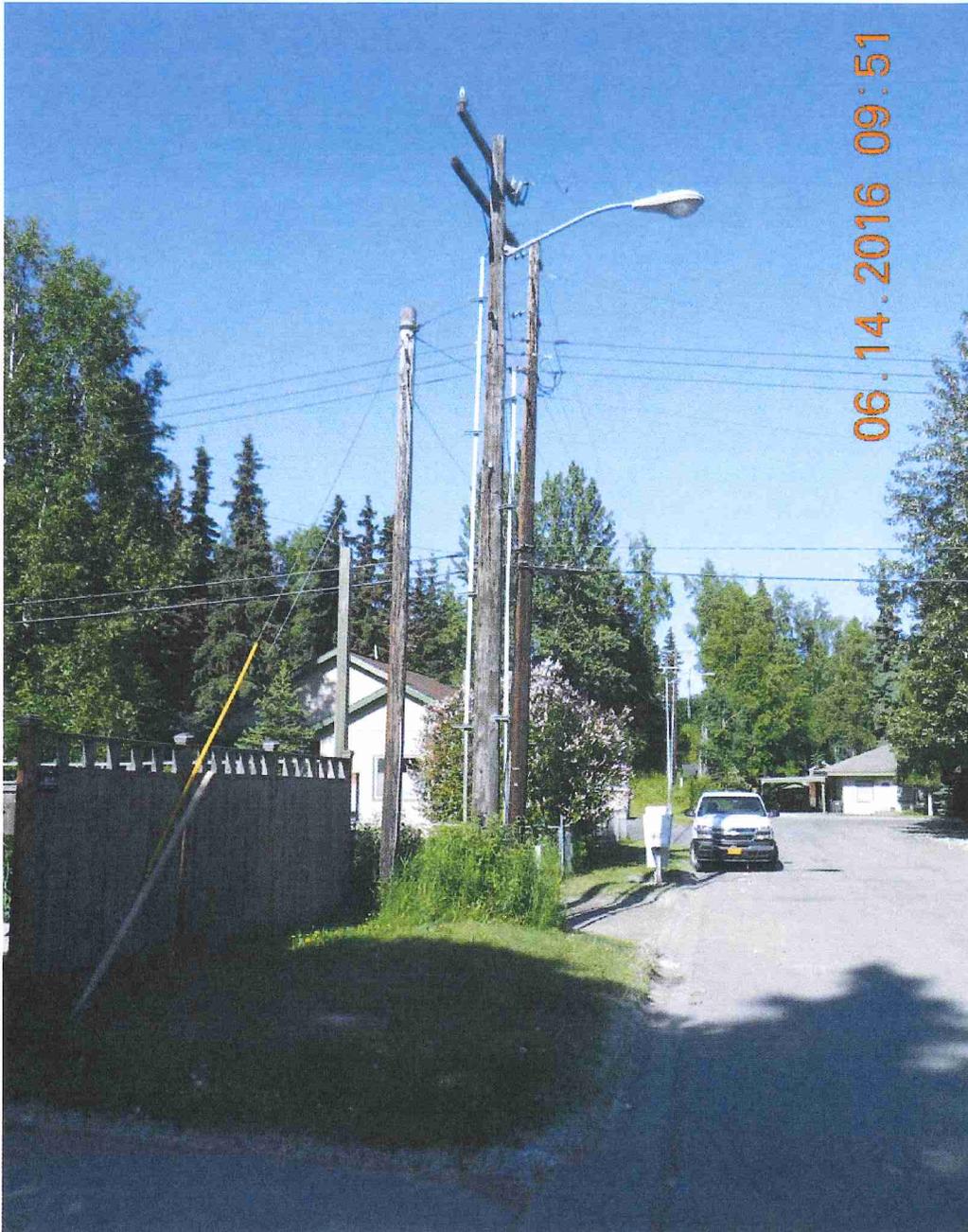
North Star Community Council: Thompson Subdivision



**ML&P**  
positiveENERGY

## EXISTING PHOTO

Photo taken facing west down West 21st Street near an alley between Blueberry Street and Borealis Drive.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1430 & 1530

# TITLE 21 PROJECT

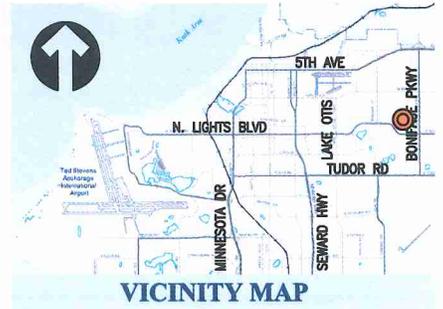
## Glacier Street & 22nd Avenue

Russian Jack Community Council



### PROJECT DESCRIPTION

This project will remove overhead electric lines west of Boniface Parkway and north of E. 24th Avenue. The new underground lines will connect primary loops for increased reliability. This area has seen a very high number of outages, especially due to high winds and squirrels. Restoring outages have been difficult due to accessibility issues. This project is in the Target Area described in the Title 21 Underground Ordinance because undergrounding these overhead lines will eliminate the power outage risk associated with the high winds. The MOA Planning Department issued a "Three Second Gust Wind Zones" map. This project is inside the highest wind speed in ML&P territory, 120 MPH.



#### Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

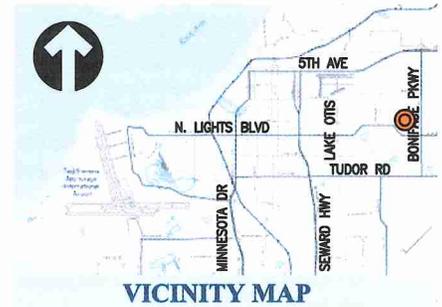
Grid Map No: 1537

**TITLE 21 PROJECT**  
Glacier Street & 22nd Avenue  
Russian Jack Community Council



**EXISTING PHOTO**

Photo taken facing west from Maudest Place down the overhead lines between East 22nd Avenue and East 24th Avenue.



# TITLE 21 PROJECT

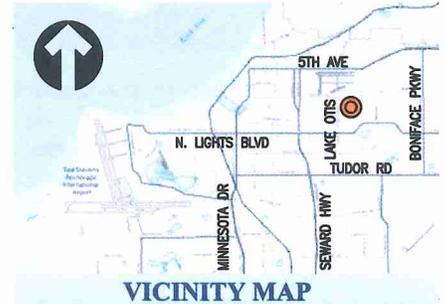
## Logan Street: E. 17th Ave. to E. 20th Ave.

Airport Heights Community Council: City View Subdivision



### PROJECT DESCRIPTION

This project will underground overhead conductors in east and west back lot lines of Logan Street from E. 17th Avenue to E. 20th Avenue. Multiple customers have requested these lines be underground. The existing poles are some of the oldest in ML&P territory and there is safety and access issues resolved by undergrounding this area.



#### Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1434

# TITLE 21 PROJECT

## Logan Street: E. 17th Ave. to E. 20th Ave.

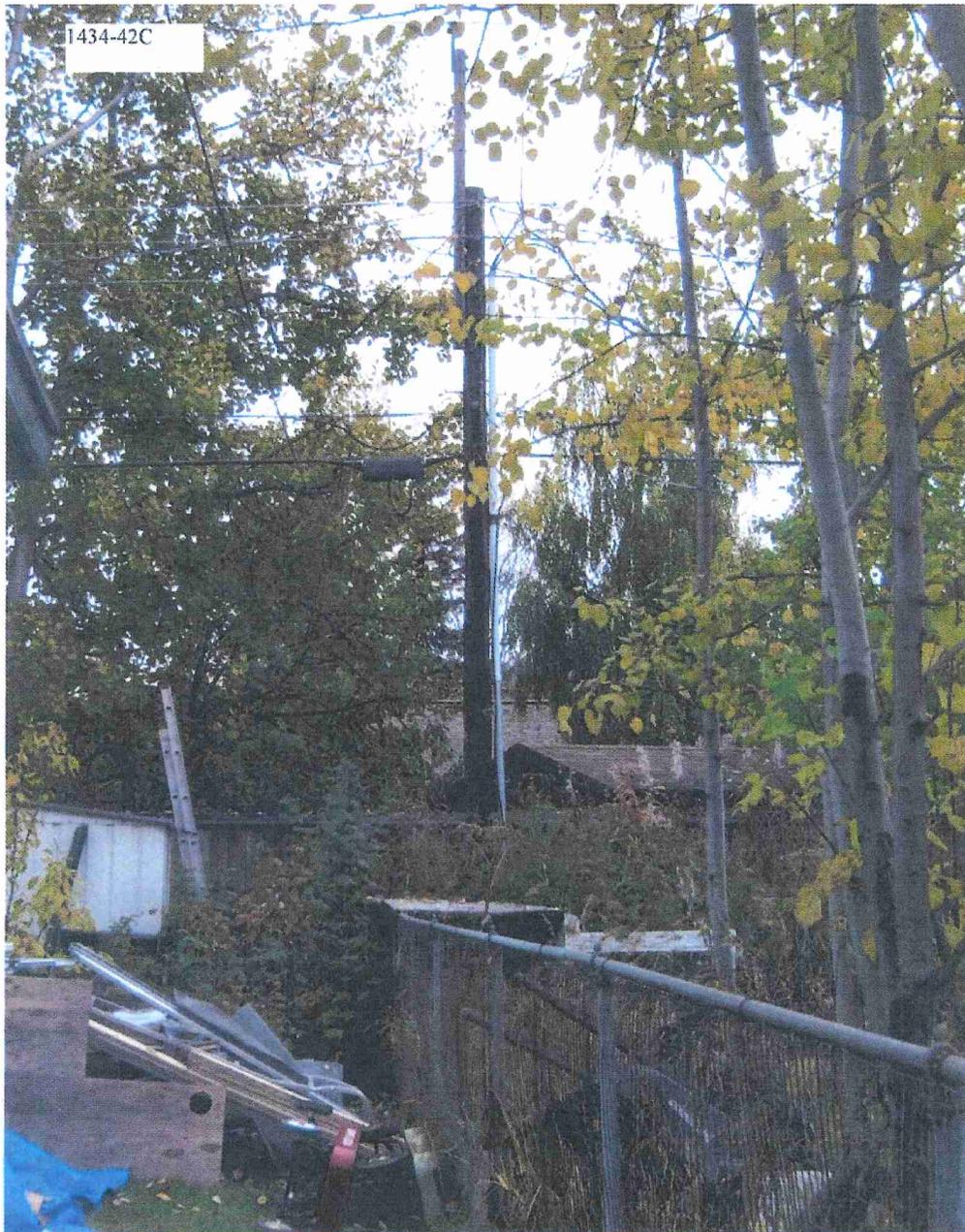
Airport Heights Community Council: City View Subdivision



**ML&P**  
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### EXISTING PHOTO

Photo was taken facing east into the backyards from Logan Street at an area between East 17th Avenue and East 20th Avenue. Note the pole top extension added to the pole to raise the distribution lines in order to get proper clearances.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1434

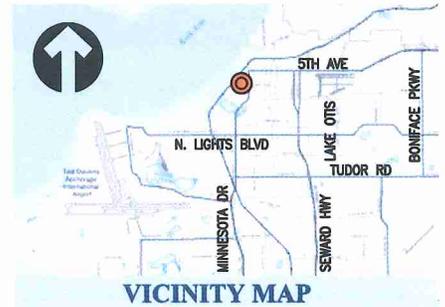
# TITLE 21 PROJECT W. 9th Avenue & P Street

South Addition Community Council: L Street Slide Replat Subdivision



## PROJECT DESCRIPTION

This project will underground overhead conductors along P Street, R Street, David Place, and W. 9th Avenue. Multiple customers have requested these lines be underground. This project is in a target area described in the Title 21 Underground Ordinance because existing overhead lines are adjacent to the Delaney Park Strip.



### Legend

-  Overhead line to be underground
-  Overhead line to remain
-  Existing Underground line
-  Project location on Vicinity Map
-  Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1328

# TITLE 21 PROJECT W. 9th Avenue & P Street

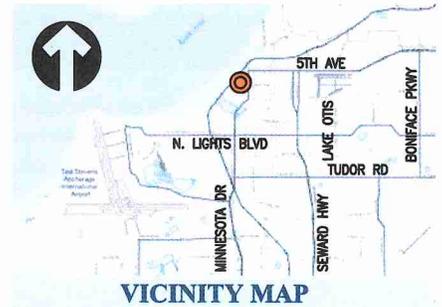
South Addition Community Council: L Street Slide Replat Subdivision



**ML&P**  
positiveENERGY

## EXISTING PHOTO

Photo taken facing west down 9th Avenue towards the Inlet near the intersection of 9th Avenue and P Street.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1328

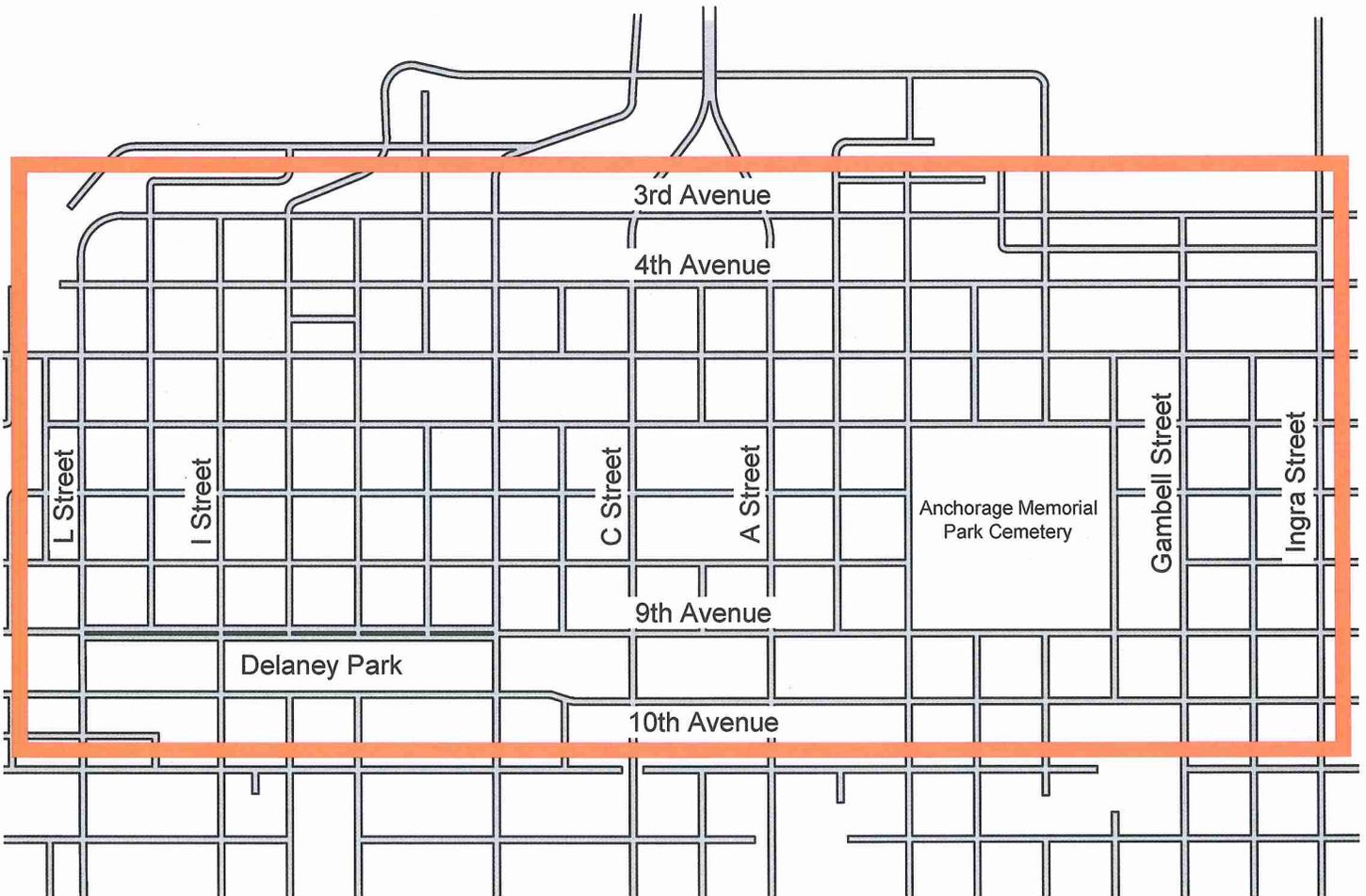
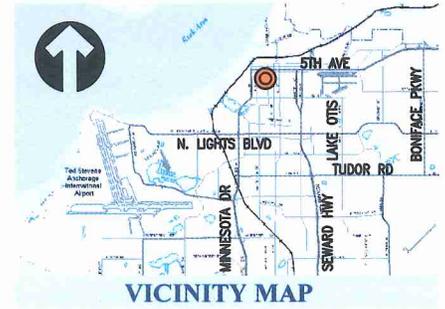
# TITLE 21 PROJECT

Central Business District  
Downtown Community Council



## PROJECT DESCRIPTION

This project will underground existing 4kV overhead lines and convert them to 35kV or 12kV underground lines. The 4kV lines are part of an aging system that will be removed from the ML&P system by 2019. This is a ML&P betterment project and will depend on system studies and property owner cooperation as to priority. Most of these lines are found in downtown alleys. This project is in the Target Area described in the Title 21 Underground Ordinance because it is located in the Central Business District.



### Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

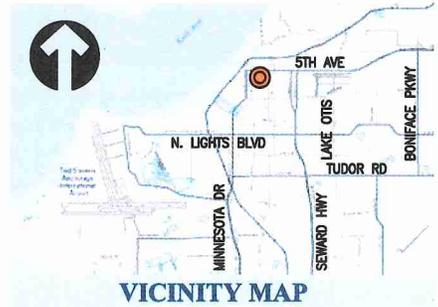
For additional information contact Jake Moe (ML&P) 263-5407

TITLE 21 PROJECT  
Central Business District  
Downtown Community Council



EXISTING PHOTO

Photo taken facing north-west at Fairbanks Street at the entrance of the Anchorage Memorial Park Cemetery.



For additional information contact Jake Moe (ML&P) 263-5407