Appendix G –
Utility Conflicts

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1.0 PROJECT SUMMARY

The Municipality of Anchorage has proposed to extend 100th Avenue from Minnesota Drive to C Street. The existing intersections at the on and off ramps on the east and west side of Minnesota Drive will be converted to roundabouts with landscape and hardscape improvements to strengthen a pedestrian connection between Minnesota Drive and C Street. These project improvements will include roadway and pedestrian level lighting and sidewalk/pathway improvements. The affected work area for the proposed 100th Avenue alignment is approximately 4,400 feet long.

This project involves significant earthwork along the majority of the proposed alignment. Pedestrian improvements will require additional right-of-way along the roundabout sections. Utilities encountered along 100th Avenue include a municipal storm drain trunk line, electric distribution and transmission lines, street lighting, and traffic signalization. Other utilities include natural gas lines crossing and paralleling the roadway and telecommunication line crossings.

1.1 Soils

Existing geotechnical boring data in the area indicates a large top layer of organic material and peat with a sub-layer of silt. Supplemental geotechnical investigation of 100th Avenue from Minnesota Street to C Street recommended that this section of 100th Avenue be surcharged and constructed with a more resilient subgrade and pavement section.

2.0 PURPOSE

This report presents conflicts found between proposed construction improvements and existing utilities within the corridor and discusses recommendations for resolution. Plan and profile drawings will be included in the review package. The plan sheets show proposed improvements over a base map compiled from field survey and as-built data. These same drawings, updated from the initial set, will be sent to individual utility companies for their use.

2.1 Scope

Utilities covered in this report include:

- MOA storm drains
- MOA street lighting and signalization
- CEA electric lines
- Enstar natural gas lines
- Telecommunication lines

Utility appurtenances that may remain because no major conflicts result from proposed improvements will be adjusted to final grade. Such appurtenances include manholes (storm drain), valve boxes, key boxes, and junction boxes.

3.0 FINDINGS BY UTILITY

Conflicts found between existing utilities and proposed improvements are presented here by utility starting at the west end of the project at Minnesota Drive, working east to C Street. Section 4.0 lists these conflicts in tabular form by utility and by location of conflict. The addition of roundabouts will affect existing traffic utilities. A proposed new lighting system will require removal of existing electroliers. The proposed roundabouts and lighting system work will require the addition of several load centers and relocation of existing load centers.

3.1 Municipality of Anchorage Storm Drain System

The Municipality of Anchorage owns and maintains a storm drain system with trunk lines that cross and parallel 100th Avenue. Two general drainage systems are included in the project area with drainage directed to one of two local outfalls as outlined below:

1. Drainage from Poseidon Drive to Minnesota Drive drains from the west toward Minnesota Drive where it collects and flows west toward Victor Road.
2. Drainage at C Street collects at the west side of the intersection and flows west into the North Klatt Bog.

Proposed roadway improvements for 100th Avenue will typically conflict with the storm drain facilities in one of two ways: 1) Storm drain manholes (SDMHs) located within pavement will require adjustment to final grade of the new pavement surface or 2) Catch basin manholes or inlets will require additional structures, relocation, or adjustment based on improvements to the curb and gutter section.

3.2 Municipality of Anchorage Street Lighting and Traffic Signalization System

Municipality of Anchorage (MOA) owns and operates street lighting along the existing portions of 100th Avenue. Traffic signalization systems and associated street lighting that serve existing intersections are under the operation of the MOA Public Works Department. Lighting occurs on both the north and south sides of 100th Avenue from Poseidon Drive to 200 feet east of Minnesota Drive. Luminaire poles typically occur immediately adjacent to the edge of sidewalk. Conductors for the lighting system are located in underground conduit runs. Proposed work for the 100th Avenue project includes removal and relocation of the lighting system. Locations of proposed poles are coordinated to avoid conflict with sidewalk and reconstructed curb ramps.

- Northbound On and Off Ramps
- Southbound On and off Ramps

The municipal traffic signal system includes poles and signal arms with mast heads along with controller cabinets, junction boxes and load centers. Roadway and pedestrian improvements conflict with these components for each intersection and will require them to be removed.

3.3 Chugach Electric Association (CEA) Electric Lines

CEA owns and operates primary power lines in the project area. Power lines cross or parallel 100th Avenue at the following locations:

- A single overhead line runs parallel along the north side of the proposed alignment and crosses at from station 18+25 to 20+25
- A single underground line crosses the Minnesota Dr. northbound off-ramp on the south side of the proposed alignment.
- A single underground line crosses the Minnesota Dr. southbound on-ramp on the south side of the proposed alignment.

The primary power lines provide feeds for local neighborhood power needs. Proposed pavement limits will require the removal and relocation of existing electric utility manholes and existing electrical transformer cabinets.

Existing electrical utilities must be removed and relocated from the locations noted in table 4.7.

3.4 ENSTAR Natural Gas Lines

ENSTAR owns and operates natural gas lines crossing and paralleling 100th Avenue. The location of these lines is described below:

- One gas line crosses 100th Avenue on the east side of the Northbound on and off ramp intersection. This service line serves the church property on the north side.

Proposed roundabouts for the intersections of 100th Avenue and the northbound on and off ramps may affect the existing gas line.

3.5 Alaska Communications Systems Telecommunications

Alaska Communication Systems (ACS) owns and operates telecommunication facilities within the project area. ACS pedestals and underground crossings occur at the following intersections:

- Southbound off ramp at Minnesota Drive on the west side.
- Northbound on ramp at Minnesota Drive on the east side.

Proposed improvements for 100th Avenue will require protection of facilities near the northbound on ramp and relocation on the southbound off ramp, where paving crosses the telephone facilities. In areas where conduit runs for lighting and signal improvements may conflict with ACS facilities, the contractor will be required to work around and protect those facilities from damage during construction.

4.0 SUMMARY OF UTILITY CONFLICTS AND POTENTIAL RESOLUTION

The following tables summarize utility conflicts assumed during preparation of this draft report. Recommended actions to resolve conflicts are preliminary, subject to review and revision. Tables are presented by type of facility.

Table 4.1 *Storm Drain Utility Conflicts

Station	Offset	SD Work	Description of Conflict	Recommended Action
5+99	LT	Catch Basin	Paving	Remove and Relocate
6+00	RT	Catch Basin	Paving	Remove and Relocate
6+05	LT	SDMH	Paving	Remove and Relocate
6+21	LT	SDMH	Paving	Remove and Relocate
6+60	RT	Catch Basin	Paving	Remove and Relocate
6+60	RT	Sub-drain	Paving	Investigate
6+97	RT	SDMH	Paving	Remove and Relocate
7+06	LT	Catch Basin	Paving	Remove and Relocate
7+18	RT	Catch Basin	Paving	Remove and Relocate
7+40	LT	SDMH	Paving	Remove and Relocate
9+47	LT	SDMH	Paving	Remove and Relocate
9+71	RT	Catch Basin	Paving	Remove and Relocate
10+19	RT	Sub-drain	Paving	Investigate
10+24	RT	Catch Basin	Paving	Remove and Relocate
10+87	RT	SDMH	Paving	Remove and Relocate
10+91	LT	Catch Basin	Paving	Remove and Relocate

*Manholes and catch basins to be replaced are not listed

Table 4.5 ENSTAR - Natural Gas Utility Conflicts

Station	Offset	Utility Conflict	Description of Conflict	Recommended Action
12+56	RT	4” Steel gas main	Paving	Locate and protect

Table 4.6 ACS -Telephone Utility Conflicts

Station	Offset	Utility Conflict	Description of Conflict	Recommended Action
6+46	LT	Pedestal	Paving	Remove and Relocate
10+89	LT	Pedestal	Paving	Locate and Protect

Table 4.7 CEA -Electric Utility Conflicts

Station	Offset	Utility Conflict	Description of Conflict	Recommended Action
5+29	36RT	Electrical Manhole	Paving	Remove and Relocate
5+89	37RT	Electrical Manhole	Paving	Remove and Relocate
5+90	44LT	Transformer Cabinet	Paving	Remove and Relocate
6+06	44LT	Transformer Cabinet	Paving	Remove and Relocate
14+37	39LT	Transformer Cabinet	Paving	Remove and Relocate

5.0 PRELIMINARY COST ESTIMATES FOR RECOMMENDED RELOCATION WORK BY UTILITY

The following table presents preliminary cost estimates for utility work proposed in this report. The allocation of costs as reimbursable or non-reimbursable will be determined as utility relocation agreements are developed.

Table 5.1 Preliminary Costs for Utility Work

Utility	Estimated Costs
CEA Electric, Lighting	$ 500,000
ACS Telephone	$ 20,000
ENSTAR Natural Gas	$ 15,000
TOTALS	$ 535,000