

MORNING GLEN ELECTRIC RELIABILITY IMPROVEMENT PLAN

PRESENTED BY:

Rick Lopez

Director, Distribution Engineering

December 17, 2020

AGENDA



- **PURPOSE**
- **MORNING GLEN OUTAGE HISTORY**
- **MORNING GLEN UNDERGROUND ELECTRIC SYSTEM**
- **RELIABILITY IMPROVEMENT PLAN & TIMELINE**
- **Q/A SESSION**

PURPOSE



- **ACKNOWLEDGE POWER OUTAGES**
- **COMMUNICATE OUR COMMITMENT TO ADDRESS THE FAILING ELECTRICAL SYSTEM**
- **SHARE OUR RELIABILITY IMPROVEMENT PLAN**

MORNING GLEN



24 MONTH CABLE OUTAGE HISTORY

Date of Outage	Neighborhood	Cause of Outage	Outage Duration
	Customers Affected		
10/18/2019	Partial	Underground Cable Failure	03:49
9/10/2020	Partial	Underground Cable Failure	01:52
10/11/2020	Partial	Underground Cable Failure	05:28
10/31/2020	Partial	Underground Cable Failure	07:26
12/1/2020	Partial	Underground Cable Failure	07:54
12/7/2020	Partial	Underground Cable Failure	05:15
12/12/2020	Partial	Underground Cable Failure	06:04

Note: This list does not include outages that have been experienced due to issues on the overhead electric lines that feed this subdivision.

MORNING GLEN

UNDERGROUND SYSTEM

- Underground electric system was installed in 1983 – 1984
- Existing cables were installed in excavated trenches & covered back up (Direct-buried)



Underground Electric Cable

- Repairs & replacements require excavation

- Current standard is cable-in-conduit.



Electric Cable-in-Conduit

- More reliable
- Easier replacement, if needed (no excavation)

MORNING GLEN

UNDERGROUND SYSTEM

- Cable Injection
 - Some of the existing cables were injected with silicon fluid to extend the life of the cables
 - Implemented in Morning Glen's underground system in 2007 & 2012



Electric Transformer during Cable Injection

RELIABILITY IMPROVEMENT PLAN



Upgrade underground electric system

- All direct buried underground cables will be replaced with new cables-in-conduit
- Transformers will also be replaced, as needed
- Our contractor, BComm, will be performing this work jointly with CPS Energy crews
- Work started on November 27th & is expected to be completed by the end of March 2021
- Excavation will be required, mostly in backyards
- Notifications will be provided in advance for any access required on property & for any planned outages associated with this project

CONSTRUCTION TIMELINE



Cable Segments	Work completed as of 12/17/2020
Rear lots of Morning Ridge	New cable-in-conduit has been installed & energized.
Between Morning Path & Country Morning	BComm is coordinating with affected homeowners for access to their backyards. Trenching will start on 12/17/2020. Estimated cable and conduit installation date 12/21/2020. Energizing of cable scheduled for 12/22/2020.
Between Morning Creek & Morning Trail (2 cables)	New cable-in-conduit has been installed. Energizing of cable scheduled for 12/18 – 12/22/2020.

CONSTRUCTION TIMELINE CONT'D



Cable Segments	Work completed as of 12/17/2020
Remaining direct buried cables	Not started yet. Continuation of replacement for remaining cables will follow. Estimated completion will be March 2021.

CABLE REPLACEMENT MAP



MORNING GLEN R-6932 TO R-58000



DESCRIPTION OF PROJECT
TO REPLACE EXISTING DIRECT BURIED UNDERGROUND CABLE (IN BLUE) TO THE NEW CABLE IN CONDUIT (IN RED).

THE PROGRESS OF THE LINE WILL FOLLOW THIS COLOR SCHEME:
BLUE > GREEN > RED

EXISTING CABLE IN CONDUIT (IN MAGENTA) WILL NOT BE REPLACED OR AFFECTED IN THIS PROJECT.

LEGEND

- TRENCHING IN PROGRESS
- CABLE REPLACEMENT COMPLETED
- EXISTING PRIMARY CABLE IN CONDUIT
- DIRECT BURIED CABLE
- SECONDARY ENCLOSURE
- ▲ PAD-MOUNTED TRANSFORMER
- Ⓡ RISER

UPDATED: 12-16-2020



CABLE REPLACEMENT MAP



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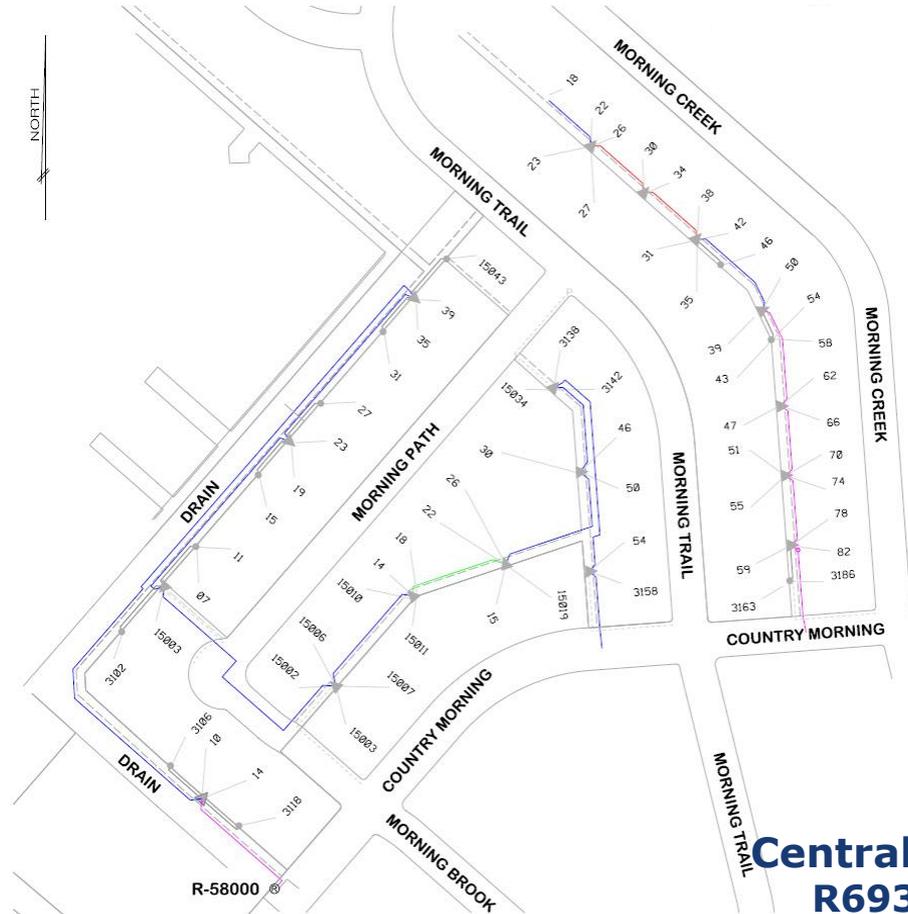
UPDATED: 12-16-2020

LEGEND	
	TRENCHING IN PROGRESS
	CABLE REPLACEMENT COMPLETED
	EXISTING PRIMARY CABLE IN CONDUIT
	DIRECT BURIED CABLE
	SECONDARY ENCLOSURE
	PAD-MOUNTED TRANSFORMER
	RISER

**North Morning Glen
 R6932 to R58000**



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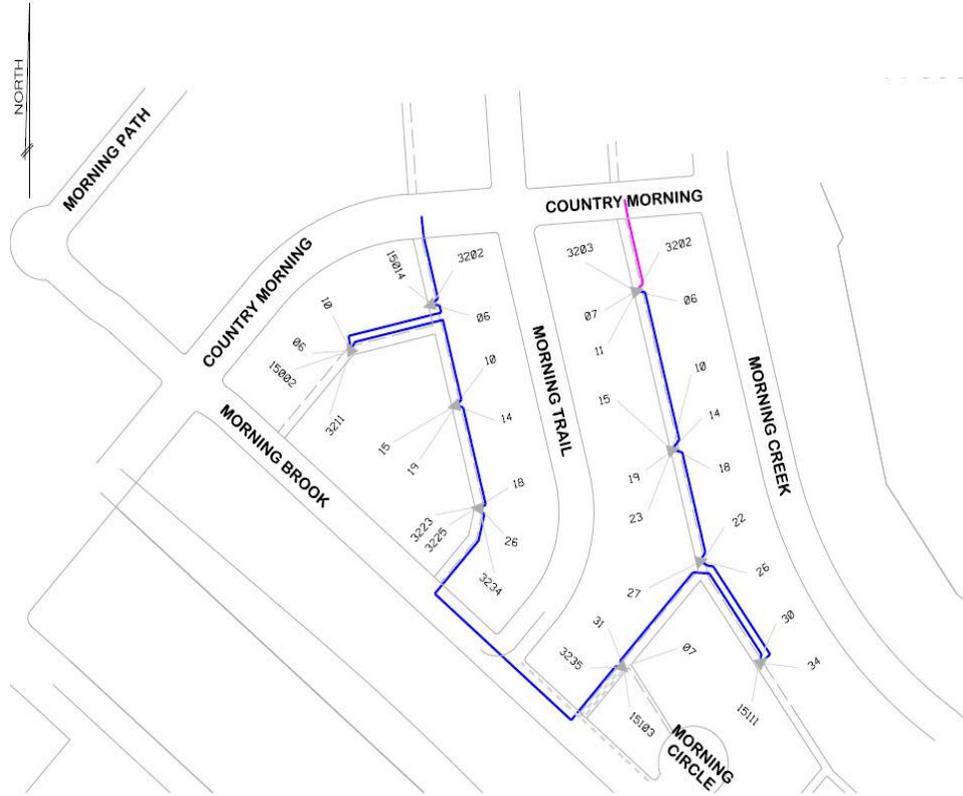
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Central Morning Glen R6932 to R58000

CABLE REPLACEMENT MAP



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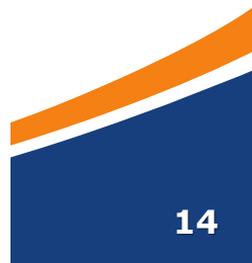
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**South Morning Glen
R6932 to R58000**



PICTURES OF CABLE REPLACEMENT WORK



Questions?