



Utilities Coordination Working Group

Report and Recommendations

January 8, 2020

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*Appendices

Appendix 1: Senate Concurrent Resolution 48

Appendix 2: Utilities Coordination Working Group Meeting Minutes

- August 21, 2019
- October 1, 2019
- November 5, 2019
- December 3, 2019
- January 8, 2020

Appendix 3: Construction Phase Subcommittee Meeting Minutes

- September 3, 2019
- September 17, 2019
- October 1, 2019
- October 15, 2019
- October 29, 1019
- November 12, 2019

Appendix 4: Design Phase Subcommittee Meeting Minutes

- Sept 17, 2019
- October 1, 2019
- October 15, 2019
- October 29, 2019
- November 12, 2019

Appendix 5: Technology Subcommittee Meeting Minutes

- October 29, 2019
- November 12, 2019

**Appendices included as an attached document*

Introduction

The Utilities Coordination Working Group (hereinafter Working Group) was formed as a result of Senate Concurrent Resolution 48 (See Appendix 1), sponsored by Senator Nicole Poore and Representative Edward Osienski of the 150th General Assembly. Utility companies are accommodated in Delaware's roadway rights of way under 26 Del. C. §§ 901.2 and 1301 subject to the consent and regulation by the Delaware Department of Transportation. There are fifty utility companies who own and operate facilities in State-owned rights of way via ninety-eight franchises granted by the Department of Transportation. The transportation needs of the State often require relocation of existing utility facilities to support the free flow of traffic and the economic vitality of the State. Coordination of the design and construction of roadway improvements and utility relocations must be done collaboratively and expeditiously to ensure improvements occur to the State's transportation network in a timely manner. The Working Group was established and charged with recommending measures to shorten the total time to coordinate and implement utility relocations on transportation projects on Delaware's highways.

The working group make-up was prescribed by the resolution.

Working Group Membership

- Rep. Osienski, legislator nominated by the Speaker of the House
- Sen. Nicole Poore, legislator nominate by the President Pro Tempore
- Sec. Jennifer Cohan, Secretary of the Department of Transportation
- Eric Cimo, Department of Transportation Utilities Engineer
- William Whitaker, Delmarva Power Corporation Representative
- Troy W. Dickerson, Delaware Electric Cooperative Representative
- Bonnie Metz, Verizon Delaware LLC Representative
- Shane Breakie, Chesapeake Utilities Corporation Representative
- Wayne Tyler, Artesian Water Company Representative
- Tammy House, Comcast Corporation Representative
- Jim Robinson/Mark Whitfield, Delaware Municipal Electric Corporation Representative
- Bryon Short, Delaware Contractors Association Representative
- Alan Marteney, American Council of Engineering Companies of DE Representative

Staff Support

- Aimee Voshell String – Chief of Legislative Relations
- Meaghan Barna – Constituent Relations Specialist
- Annie Cordo and Ken Feaster – Department of Justice
- Teresa Brower – Administrative Specialist III, Technology and Innovation

SCR 48 further resolved that the Working Group was required to form at least two subgroups: one to consider design phase utility relocation coordination and one to consider

the construction phase. The Working Group, in considering all reasonable options for improvement, determined that creation of a Technology Subcommittee would aide in their overall objective by dedicating focus to all technology aspects of the existing process and future needs.

Design Phase Subcommittee Members

- Chair: Garth Jones, Chesapeake Utilities
- Eric Cimo, DelDOT
- Greg Coury, Tidewater Utilities
- Troy Dickerson, Delaware Electric Cooperative
- Rick Kerfoot, Comcast
- Laszlo Keszler, DPL Gas
- Alan Marteney, Century Engineering/ACEC-DE
- Representative Edward Osienski
- Mark Parker, Eastern Shore Natural Gas
- Chris Potter, Delmarva Transmission Engineering
- Caroline Trueman, FHWA
- Wayne Tyler, Artesian Water
- Bill Whitaker, Delmarva Power Electrical Division
- Mark Whitfield, DEMEC
- George Zang, Verizon

Construction Phase Subcommittee Members

- Chair: Bryon Short, DCA
- Eric Cimo, DelDOT
- Troy Dickerson, Delaware Electric Cooperative
- Rick Kerfoot, Comcast
- Laszlo Keszler, DPL Gas
- Alan Marteney, Century Engineering/ACEC-DE
- Representative Edward Osienski
- Chris Potter, Delmarva Transmission Engineering
- John Raudenbush, Verizon
- Brad Saborio, DelDOT
- Caroline Trueman, FHWA
- Wayne Tyler, Jr., Artesian Water
- Richard Welsh, Eastern Shore Natural Gas
- Bill Whitaker, Delmarva Power Electrical Division
- Mark Whitfield, DEMEC
- George Zang, Verizon

Technology Subcommittee Members

- Chair: Todd Reavis, DelDOT
- Scott Brockett, Delmarva Power
- Eric Cimo, DelDOT
- Troy Dickerson, Delaware Coop
- Garth Jones, Chesapeake Utilities
- Laszlo Keszler, DPL Gas
- Alan Marteney, Century Engineering/ACEC-DE
- Chris Potter, Delmarva Transmission Engineering
- Ray Rouault, Delmarva Power
- Brad Saborio, DelDOT
- Caroline Trueman, FHWA
- Wayne Tyler, Jr., Artesian Water
- Bill Whitaker, Delmarva Power Electrical Division
- George Zang, Verizon

The Utilities Coordination Working Group met for the first time on August 21, 2019 and continued to meet monthly through January of 2020. In an effort to be expedient, the Design and Construction Phase subcommittees met every two weeks during that same time period. The Technology committee was formed in late October and met every two weeks thereafter. Committees focused on identifying challenges in coordination, best practices utilized in surrounding jurisdictions and how to build on coordination efforts that have been successful. Meeting and Subcommittee minutes attached as Appendixes 2-5.

Challenges and Concerns

Coordination of the many transportation projects with the multitude of companies operating in the State's right of way is needed to minimize disruption and inconvenience to the public who rely on the roadways and utility facilities in the pursuit of their daily endeavors and quality of life. Recognizing this, the committee established that open and honest communication amongst all committee members was crucial throughout the process. Members were able to speak freely and openly about challenges and issues throughout all stages of the processes. Key challenges and concerns identified include:

- Need for more open and consistent communication from all parties
- Need for user-friendly technology to assist in coordination
- A lack of reliable project construction schedules which include utility relocation information
- Lack of accountability for meeting deadlines and providing documentation from all parties

Strengths

Early in the process, working group and committee members identified the willingness of all parties to work together to better policies and procedures for the greater good of Delawareans as the group's biggest strength. Parties agreed that improvements need to be made across the board and that there needs to be a level of accountability for all players. Members were grateful to have space to come together and openly discuss issues occurring throughout current processes.

DelDOT currently holds South and North Monthly Meetings. These meetings are another strength already in place that could be expanded upon. They currently operate as a roundtable where specific project updates and challenges can be discussed. While utility companies noted the difficulties in providing resources to attend the monthly meetings, members agreed that they are productive and informative. Committee Members would like to see more parties come to the table.

Recommendations

As prescribed by SCR 48, the Working Group considered reasonable options for improvement and hereby presents recommendations for improvement.

Design Phase Subcommittee Recommendations

These are not necessarily legislative recommendations but are suggestions for how this subcommittee or others should move forward to better the utility coordination process for DelDOT projects. One of the goals of these recommendations is to improve the coordination process and shorten design timeframes.

1. Continue working group meetings past Jan. 1, 2020 to develop and implement high level recommendations provided herein.
2. Enable technology to aid and enhance design coordination on projects.
3. Determine accountability/incentive measures that hold DelDOT and utility companies accountable throughout the design process. Accountability and incentives would be integrated between the design and construction subcommittees. This recommendation may require future legislation.
4. Continue to have Working Group meetings after the resolution is resolved, essentially creating a Delaware Utility Coordination Council to discuss and resolve issues and to continue bettering processes (quarterly).
 - Perform post analysis of the design/utility coordination of projects to determine what worked well and what needs to be improved in an effort to continually better the process.

- Compare and coordinate the DelDOT design process and milestones with utility company design processes and milestones.
 - Perform post construction analysis of projects to determine what worked well and what needs to be improved (continually bettering the process).
5. DelDOT to provide CAD files with every milestone plan submission in addition to the typical files shared in the current coordination process. Responses from Utility Companies are also preferred to include CAD files.
 6. Proposed plan response timeframes: Survey Plans = 30 calendar days; Preliminary Plans = 90 calendar days; Semi-final Plans = 90 calendar days; Final Plans = 30 calendar days. If plans are substantially revised as determined by the Utility Engineer and resubmitted the timeframe starts over.
 7. Companies will provide property right documentation (easement agreements, deeds, service agreements, etc.) within 60 calendar days after receiving survey plans.
 8. DelDOT and design consultants to provide plans showing utilities in color. Colors shall be in accordance with APWA designations and DelDOT CAD Standards.
 9. Hold at least one utility coordination meeting for each design plan development milestone between Preliminary and Final plans to discuss proposed DelDOT improvements, anticipated project phasing, anticipated schedules, anticipated conflicts, and anticipated utility relocations. These meetings are especially needed for larger and more complex projects.
 10. Hold constructability/phasing meetings between DelDOT and utility companies between the semi-final and final plan development design stage.
 11. DelDOT shall create a plan design milestone between preliminary plans and semi-final plans that provides more detailed design information to evaluate underground utility conflicts. Plan response timeframe shall be 90 calendar days.
 12. DelDOT shall supply a composite or overall roll plan of the entire project with proposed DelDOT design and existing/proposed utility relocations at each plan development milestone submission.
 13. When companies submit mark-ups or other information, DelDOT construction and utility relocation plans will be updated and sent back to companies for review/confirmation within 30 calendar days to keep all parties engaged and up to date. Companies will review and confirm information to DelDOT within 14 calendar days.

14. DelDOT will utilize dedicated personnel to provide better QA/QC on DelDOT design plans prior to issuance.
15. DelDOT to create a sustainable funding source to better and more reliably support long term project planning so utility companies can plan and staff accordingly.
16. DelDOT to implement integrated project management technology to better the coordination process.

Construction Subcommittee Recommendations

These are not necessarily legislative recommendations but are suggestions for how this subcommittee or others should move forward to better the utility coordination process for DelDOT projects. One of the goals of these recommendations is to shorten the total time to coordinate and implement utility relocations on transportation projects.

1. Where utility companies do not have the capabilities, DelDOT to take the lead and utilize joint trenching whenever feasible.
2. Once a highway contract is awarded, there will be a preconstruction meeting between DelDOT, utility companies and the highway contractor to further discuss schedules, phasing and constructability. These meetings shall include field walk outs.
3. DelDOT shall keep and periodically exchange updated project contacts list with utility, DelDOT and contractor contacts.
4. DelDOT to establish a contractor plan change coordination and approval process while upholding the importance of innovation.
5. Where feasible, seek to find consensus opportunities for integration of utility relocation work into highway contracts so it is performed by the highway contractor.
6. DelDOT to create reliable project construction schedules which include utility relocation information. Contractors to provide reliable updates to DelDOT and utility companies throughout the duration of the construction projects.
7. Determine accountability/incentive measures that hold DelDOT, Contractors and utility companies accountable.
8. Incorporate construction related discussions early into the design preparation/coordination to determine needs and responsibilities (advanced relocation possibilities, joint trenching, clearing, grading, etc.).

Technology Subcommittee Recommendations

Overall, the Subcommittee reached a conclusion that the current application, as is, would not meet the long-term goals of the Utilities Coordination Working Group, as it was not designed to do so. The Subcommittee therefore recommends pursuit of a new solution via several different means (listed in no order of preference):

1. Enhancement of the existing application.
2. Procurement of a new solution (commercial off the shelf software, with enhancement options).
3. Creation of a new, custom developed solution.

All three means have benefits and drawbacks associated. As such, the subcommittee is not recommending one approach over the other at this point. Rather, the subcommittee is more focused on identifying key characteristics and attributes the new solution should provide.

The Subcommittee for Utilities Technology recommends any new system meet the following requirements:

1. The system must be reachable from any modern, supported browser or mobile operating system. Thus, if a credentialed end user has an internet connection via cellular or Wi-Fi on an industry-supported device, the system will function. Note: the subcommittee recommends consideration of a mobile application if viable for Android and iOS operating systems, but only for the purpose of augmenting a browser-based application.
2. All stakeholders must agree to participate in the process of onboarding any new solution and dedicate a particular attention to proactively identifying interactions that could occur outside the application.
3. The proposed system should provide end to end workflow for the complete process from planning through design and construction. The proposed system should also serve as the end to end system of record for aspects of accountability and enforcement (*where applicable*).
4. The proposed system shall provide for open architecture to serve several needs:
 - Integration to external systems used by utilities providers, to enable data sharing and process point in time understanding (i.e. synchronization).
 - High configurability to enhance more readily to meet the changing demands of the long-term Utilities Coordination Working Group. Providing baseline functionality that is more configuration-driven versus hard-coded will enable continuous improvement concepts and adaptability. (*Note: we recommend development of a system administration approach based on this*).

5. The proposed system will support scheduling for projects via import and otherwise, and provide access to all providers' plans associated with a particular project.
6. The system will track incomplete submissions from designer and utility side alike. In doing so, the system will have the basic means to understand that a submission is incomplete or not acceptable otherwise, through built-in checklists and required field controls surrounding entry and content.
7. The system will provide a utilities conflict matrix as a required checklist element.
8. The proposed system will support configurable notifications and reminders to aid in accountability.
9. The system shall provide real-time status of projects via user-configurable dashboard, with a variety of means to display information (sort, filter, etc), including reporting capabilities.
10. The system shall provide a means to search across projects, providers and other key data attributes.
11. The system shall maintain an archive for all projects.
12. The system shall provide a map/geospatial component to show project location, utility locations including specific relationship to road location, and other attributes to be defined. The system shall also accommodate import of existing GIS data from other sources (state, county, municipality, and otherwise).
13. The system shall accommodate mapping for all new and relocated utilities.
14. The system shall enable capture of all assets associated within right of way, regardless of whether the project is highway-associated.
15. The system shall provide a means for end users to contact each other in reference to projects to collaborate around plans, with a record of all collaboration housed within. Collaboration should include functionality to extend dates where justified, and appeal established dates in order to request extensions.
16. The system shall establish and require certain inputs on all projects across the state, throughout the project process.
17. The system should take into consideration utility companies' internal process and associated restrictions around onboarding and usage of any new technology.

DelDOT Recommendations for Consideration (Senate Concurrent Resolution 48)

1. At the discretion of the Utilities Engineer, the Department will suspend utility permit work or approvals of utility permits that are not specifically identified as being for single residential or commercial services as necessary to maintain compliance with deadlines and schedules related to DelDOT projects in design and construction.
2. The Department shall provide resources to utility companies as necessary to maintain required design schedules. These resources may be in the form of reimbursing utility companies to hire utility company personnel or consultants that are dedicated to strictly performing DelDOT highway project design coordination, directly hiring utility design consultants to perform relocation designs on behalf of and in consultation with the respective utility company, or reimbursing the utility for costs incurred performing design work with existing in-house or consulting staff. These resources shall only be provided if required information is provided to the Department within the agreed upon milestone timeframes.
3. The Department may incentivize utility relocation work or otherwise provide resources or reimbursement to utility companies to ensure the agreed upon relocation schedules are maintained or completed earlier than scheduled.
4. The Department will pay for the full costs of any utility relocation work that companies allow to be added directly into the highway contract and installed by the Department's highway contractor. Money would not change hands for this type of arrangement.
5. Should the Department change their project design or bid advertisement date, they will be responsible for full reimbursement of any costs incurred by the utility company for said project to date of change. The Department will also be required to give companies adequate time to perform work in accordance with new highway project schedules. The Department may also be required to pay additional fees to utility companies to prioritize relocation needs.
6. Utility companies will be required to utilize the Department's specified, electronic system to coordinate all highway projects in order to be eligible for incentivized and resource reimbursement.
7. Utility companies will provide DelDOT with detailed and accurate utility relocation schedules that break out work activities/milestones and durations. The initial work durations, milestones, breakouts, etc. will be provided in response to the new design plan milestone discussed previously in these recommendations. These will be discussed and incorporated into a project utility relocation bar chart at the semi-final plan design

milestone. The activity-based utility relocation schedules will be incorporated into the overall highway project schedule and timing statement created by DelDOT during design coordination. This schedule will act as the foundation that is utilized for all agreements and tracking. It will also be utilized as the foundation from which the highway contractor will build their schedule.

8. Should the Department's highway contractor wish to change the schedule or phasing of a highway project from what is specified in bid documents, the highway contractor will be required to coordinate proposed changes with utility companies prior to submitting proposed change to the Department. Schedule or phasing changes will not be approved unless written agreement is received from all utility companies involved. If the contractor is unable to obtain agreement from all utility companies, the highway contractor shall submit information obtained from companies to DelDOT for further consideration. Should the Department see value in the proposed change, they may coordinate further with companies. Should the change require additional utility costs or fees, the Department, at its sole discretion, will determine if the highway contractor's proposed changes should move forward and whether DelDOT, the highway contractor or a combination thereof is responsible for the added utility costs. If the changes are adopted, the highway contractor is required to submit updated schedules to all parties based on any changes. These schedules are to properly outline utility relocation start and end dates along with accurate durations for all companies. This information shall represent information obtained from utility companies as part of the coordination of changes.
9. The Department's highway contractor is required to provide accurate schedules of the highway construction to the Department and utility companies for all projects they are involved with. At a minimum, these highway contractor schedules are to outline the start and end dates and duration of the contractors proposed work activities, construction phases, and utility relocation work (whether advanced work or concurrent work) based on the utility durations, activities, and information provided in the contract documents. These schedules shall be submitted to the Department and utility companies periodically as outlined by the Department's contract documents.

Conclusion

Utility Coordination working group and subcommittee members expressed an appreciation for the opportunity to come together collaboratively to address existing strengths and weaknesses in coordinating efforts. The working group is committed to continuing to work together to streamline processes which will effectuate faster results for constituents.

Thank you to all working group/committee members and to our legislature for your efforts and on-going desire to deliver the best and most expedient services to Delawareans.