



**Owner: Massachusetts Bay Transportation**



**Main Contractor: McDonald Electrical Corporation**



**CPM SCHEDULING CONSULTANTS: HSE CONTRACTORS**

**Project: MBTA Contract No. Z90CN01**

**Baseline Schedule**

**Work Package #1**

**Notice to Proceed**

**July 22<sup>th</sup>, 2022**

**Initial Installation Completion for WP#1**

**July 19<sup>th</sup>, 2023**

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## Introduction

McDonald Electrical Corporation has been awarded a construction contract for modifications to MBTA's existing fare collection system for Subway and Busway stations along Orange, Blue, Red, Silver and Green lines.



## Scope of Work

The scope of the work includes: modifications to the power and communications connected to fare collection equipment, removal and in some locations relocation of existing equipment, installation of new fare collection equipment (both the existing and new fare collection systems will remain in service for a period of time for MBTA QA/QC testing), upon completion of the MBTA QA/QC testing phase - removal of the remaining existing equipment, installation of new equipment, restoration of all station finishes and contract work.

## Project Sequencing

Work at Community College Station (OL07) to be performed as a “trial run” in order to witness, review and respond to any constructability, accessibility, MBTA-support issues, etc. that could not be accounted for during pre-construction and scheduling meetings.

Work at remainder of stations within Work Package to commence upon resolution of all issues encountered during work at Community College Station

## Key Dates

Description	Original Date	Update	Variance
NTP	July 22 <sup>nd</sup> , 2022	July 22 <sup>nd</sup> , 2022	0
MBTA Issue Work Assignment #1	October 28 <sup>th</sup> , 2022	October 28 <sup>th</sup> , 2022	0
Construction Commencement on WP#1	March 13 <sup>th</sup> , 2023	March 13 <sup>th</sup> , 2023	0
Initial Installation Completion for Work Package #1	June 13 <sup>th</sup> , 2023	July 19 <sup>th</sup> , 2023	36 Days

## Calendars

### **7 Days/Week Calendar:**

Used for all Milestones.

### **5 Days/Week Calendar:**

Used for all Construction activities.

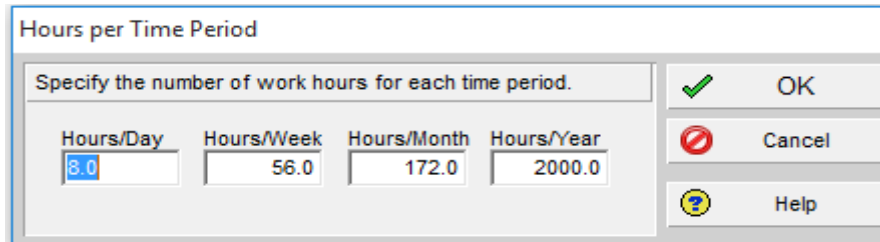
Saturdays and Sundays are off and the following holidays have been defined as non-working days:

Memorial Day	Mon, May 29, 2023
Independence Day	Mon, Jul 4, 2022
Labor Day	Mon, Sep 4, 2023
Veterans Day	Fri, Nov 10, 2023
Thanksgiving	Thu, Nov 23, 2023
Day After Thanksgiving	Fri, Nov 24, 2023
Christmas Day	Mon, Dec 25, 2023

## Working Hours

As per Contract, all work at MBTA stations is to be conducted between the hours of 9:00 p.m. and 5:00 a.m.; work at streetscape locations to be conducted during daytime hours.

The following figure represents the planned hours for the Full Access, Weekend Diversion and 7 Days/Week work calendar assigned to the project



Hours/Day	Hours/Week	Hours/Month	Hours/Year
8.0	56.0	172.0	2000.0

Figure 1: Planned hours for all work calendars

## Work Crews and Equipment

A description of the work crews and equipment that will be used for the Work Assignment:

- MEC – One crew of 3 or 4 electricians with utility truck and transport vehicle to start; additional manpower and/or crew to be added as schedule requires.
- Site/civil subcontractor – One crew of one laborer and one carpenter with tool truck.
- Communications subcontractor – One crew of one or two technicians with vehicle.

## Restrictions

A description of any restrictions that may affect the execution of the Work Assignment:

- Receipt of Work Directive (Work Assignment, Work Estimate, Work Directive).
- Station sequence modified by external forces.
- Some stations may not be able to be worked on for a particular shift or some number of days.

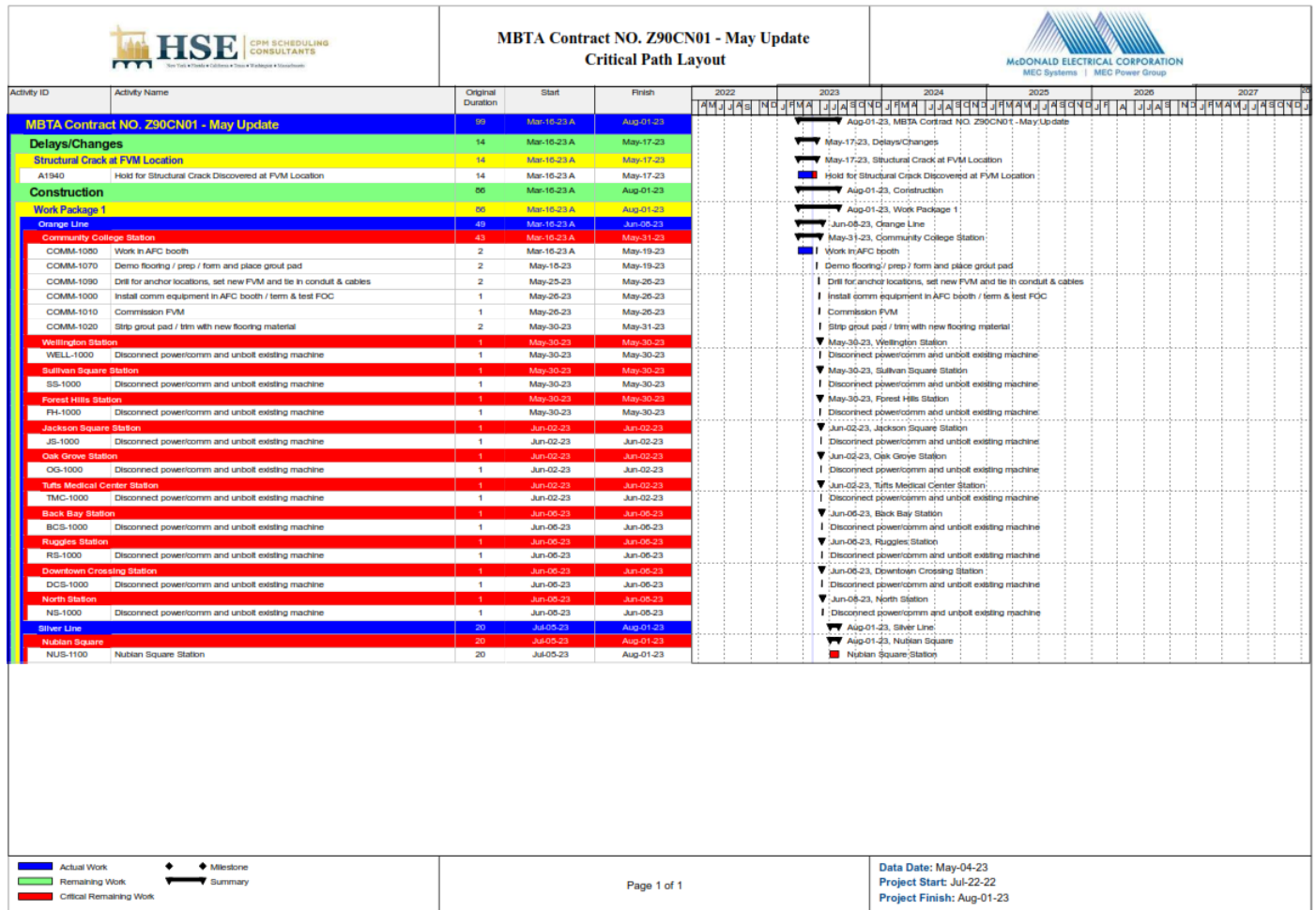
## Assumptions

A list of all assumptions that the Contractor makes regarding the execution of Work:

- Approx. 200-sf of laydown and storage space at each interior station location.
- Maintain revenue collection at all times during revenue hours 5:00 a.m. to 1:00 a.m.
- Station sequence of work to be selected by MEC.

## Critical Path Analysis

As shown below, the critical path starts with the suspension of work due to structural crack discovered at FVM location, then it goes to the remaining work in Community College Station. The construction work then starts at Wellington Station all the way to the Nubian Square Station.



## Progress

The construction work has started on March 13<sup>th</sup>, 2023 at Community College Station, then due to a structural crack discovered at FVM location, the project has been put on hold by MBTA on March 16<sup>th</sup>, 2023.

## Schedule Changes

### Added Activities

The following activities have been added to the schedule to reflect the project suspension due to structural issue.

Activity ID	Activity Name
A1930	Recieved Direction to Stop Work by MBTA
A1940	Hold for Structural Crack Discovered at FVM Location

### Added Activity Relationships

The following relationships were added to tie the added delay event to the schedule to reflect the project suspension.

Activity ID	Activity Name	Relationship Type	Predecessor Activity Id	Predecessor Activity Name
A1930	Recieved Direction to Stop Work by MBTA	Finish to Start	A1910	MBTA Approval of Estimate & Issue Work Directive
A1940	Hold for Structural Crack Discovered at FVM Location	Start to Start	A1930	Recieved Direction to Stop Work by MBTA
COMM-1070	Demo flooring / prep / form and place grout pad	Finish to Start	A1940	Hold for Structural Crack Discovered at FVM Location

## Conclusion

The construction work has started on March 13th, 2023 at Community College Station, then due to a structural crack discovered at FVM location, the project has been put on hold by MBTA on March 16th, 2023.