

# Summary of Proposed Award Fiber Optic Communications System Improvements Design

Presented to: Operational Planning &  
Infrastructure Committee

March 6, 2018

Greater Cleveland Regional Transit Authority



# Fiber Optic Communications System Improvements Design

- Current Fiber Optic Network:
  - Consists of several different generations of equipment and fiber optic cable
  - The fiber optic network provides communications transport services to many departments such as Operations, IT, Transit Police, Emergency Call Boxes, and Asset Configuration

# Fiber Optic Communications System Improvements Design

- Current Fiber Optic Network:
  - Mission critical for several GCRTA Departments
    - Safety – Fire Alarm Panel communications
    - Security – Cameras, 911 call boxes
    - CTDS – Consolidated Train Dispatch System
    - SCADA – Supervisory Control & Data Acquisition

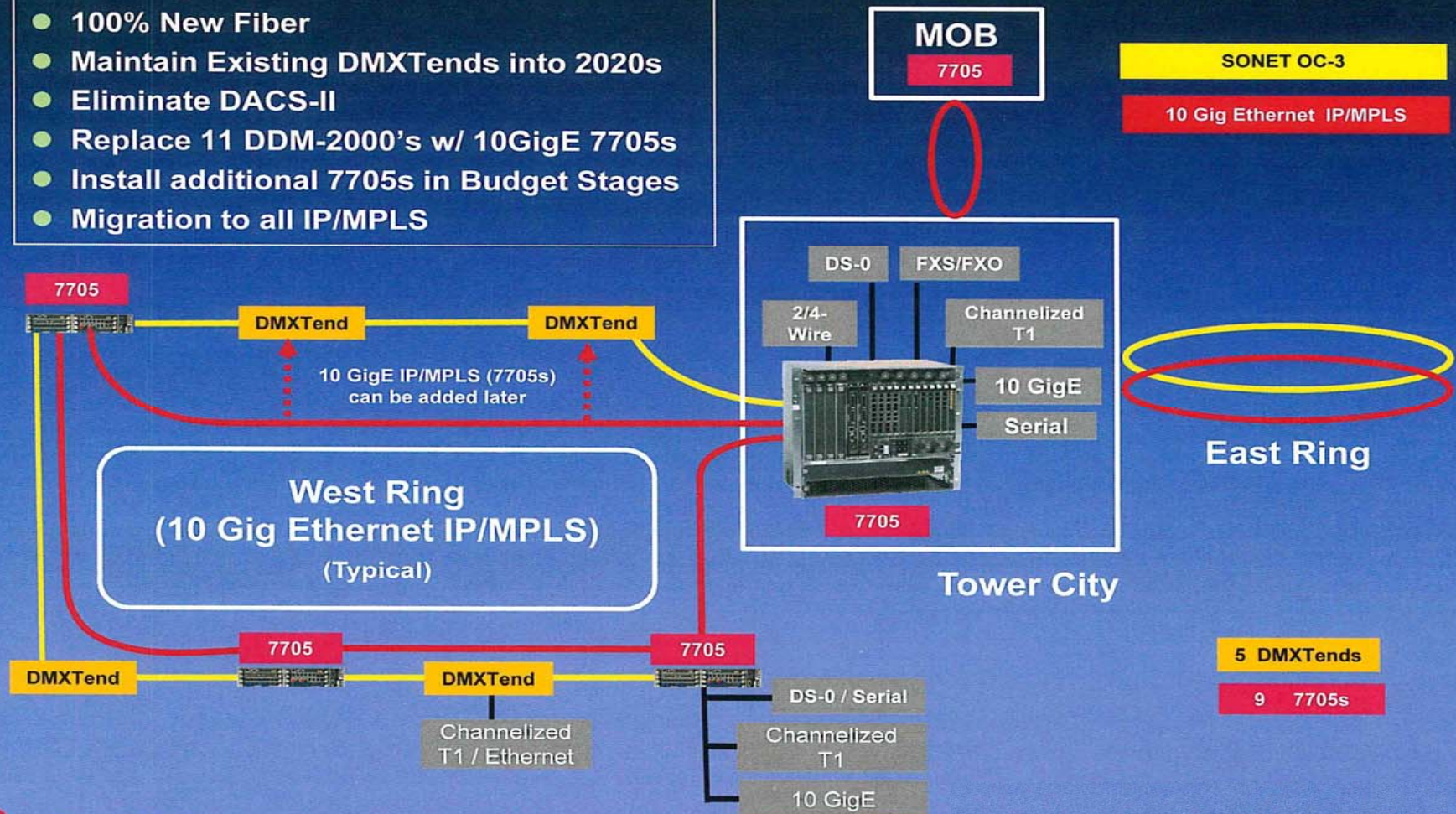
# Fiber Optic Communications System Improvements Design

- Current Fiber Optic Network:
  - Most of the fiber optic equipment has been in service since 1992 and is at the end of its life
  - Many components of the system have been discontinued and are no longer supported
  - Overhead fiber optic cable is severely deteriorated

# Fiber Optic Communications System - Schematic

## Advantages:

- 100% New Fiber
- Maintain Existing DMXTends into 2020s
- Eliminate DACS-II
- Replace 11 DDM-2000's w/ 10GigE 7705s
- Install additional 7705s in Budget Stages
- Migration to all IP/MPLS



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# Fiber Optic Communications System Improvements Design

- Project Objectives:
  - Assessment of the current fiber network and identification of GCRTA communication needs
  - Development of fiber optic technical specifications
  - Development of contract drawings
  - Development of a fiber optic test plan

# Fiber Optic Communications System Improvements Design

- Deliverables:
  - Fiber optic equipment technical specifications
  - Fiber optic cable; aerial and underground technical specifications
  - Fiber optic cable aerial and underground installation specifications
  - Identification of all fiber splicing locations

# Fiber Optic Communications System Improvements Design

- Deliverables:
  - Construction documents for an IFB
    - Specify dedicated fibers for various functions within GCRTA such as signals, substations, IT and emergency call boxes
    - Documentation shall be provided for dark fibers installed for future expansion/redundancy



# Fiber Optic Communications System Improvements Design

- RFP issued October 2, 2017
- Accessed on the GCRTA web site by twenty-three (23) interested parties
- Four (4) firms proposed
- Three (3) firms were interviewed
- A 10% DBE Goal was assigned

# Fiber Optic Communications System Improvements Design

- Evaluation Panel Members:
  - Engineering
  - Operations
  - Information Technology
  - Procurement
  - Office of Business Development

# Fiber Optic Communications System Improvements Design

- Evaluation Criteria:
  - Project Manager
  - Assigned Staff
  - Past Performance
  - Project Approach
  - Location of Majority of Work
  - DBE Participation

# Fiber Optic Communications System Improvements Design

- Recommended Vendor:
  - Clifton, Weiss & Associates, Inc., located in Gwynedd Valley, PA, is a certified DBE, in association with sub-consultant SYSTRA, New York, New York
  - The 10% DBE Goal will be exceeded utilizing:
    - Clifton, Weiss & Associates, Inc. (60%)
    - Denise's Flagging & Construction (3%)

# Fiber Optic Communications System Improvements Design

- Firm Experience:
  - Clifton, Weiss & Associates, Inc. has successfully completed projects for GCRTA, Ohio Turnpike, and the Chicago Transit Authority, among others
  - First worked with GCRTA in 1992
  - Experienced/qualified staff

# Fiber Optic Communications System Improvements Design

- Recommendation:
  - Staff requests that the Operational Planning & Infrastructure Committee recommend award to Clifton, Weiss & Associates, Inc. for the Fiber Optic Communications System Improvements Design. The contract will be in an amount not to exceed \$799,572.00.