

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0006807, DeKalb County **OFFICE** Preconstruction
CSCMQ-0006-00(807)
Perimeter Center Area Fiber Optic Interconnect **DATE** April 4, 2006

FROM *Cybil Kunk*
Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO *for* SEE DISTRIBUTION

SUBJECT APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Joe Palladi (file copy)
Paul Liles
Babs Abubakari
Bryant Poole
BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: P. I. No. 0006807, DeKalb County **OFFICE** Preconstruction
CSCMQ-0006-00(807)
Perimeter Center Area Fiber Optic Interconnect **DATE** March 30, 2006

FROM *John Kunko*
Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO *to* David E. Studstill, Jr., P.E., Chief Engineer

SUBJECT PROJECT CONCEPT REPORT

This project is the Perimeter Center Fiber Optic Interconnect along portions of the following road segments:

- ◆ Hammond Drive from Shopping Center Driveway to DeKalb/Fulton County line
- ◆ Meadow Lane Road from Perimeter Center west to Ashford Dunwoody Road
- ◆ Parkside Place NE from Lake Hearn Drive NE to Perimeter Summit Parkway

The Perimeter Center Community Improvement Districts (PCIDs) represent the DeKalb and Fulton Perimeter CIDs which are home to the largest office park concentration in Metro Atlanta. A combination of growth and aging traffic control equipment within the DeKalb Perimeter CID has created unacceptable levels of congestion. Upgrades to traffic signal control equipment and communications hardware are needed to allow coordination of signals, reduce congestion and improve safety. There are a number of projects under construction or being implemented to address traffic signal and communication upgrades within various sections of the CID. However, these projects are interspersed throughout the CID and do not facilitate seamless traffic operations between the two CIDs.

A separate project for the Fulton Perimeter CID (GDOT P.I. No. 0006817), which will be let at the same time as this project for the DeKalb Perimeter CID, will also fill in the gaps in the system by implementing upgrades to traffic control and communications equipment within the PCIDs to achieve seamless traffic signal operations between the two CIDs.

The proposed construction will consist of the installation of a 48 single mode fiber optic cable along certain road segments to fill in gaps in the area's fiber infrastructure. It also includes the installation of an Ethernet switch in 28 cabinets within the area and the installation of an aggregate switch to consolidate all communications to a single point.

David Studstill

Page 2

P. I. No. 0006807, DeKalb

March 30, 2006

Environmental concerns include requiring a Categorical Exclusion be prepared; a public hearing open house is not required; time saving procedures are appropriate.

The estimated costs for this project are:

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>FUNDING</u>	<u>PROG DATE</u>
Construction (includes E&C and inflation)	\$1,330,000	\$1,330,000	L400	2007
Right-of-Way & Utilities*	-----	-----		

*LGPA needed.

I recommend this project concept be approved and be constructed concurrently with P.I. No. 0006817, Fulton County.

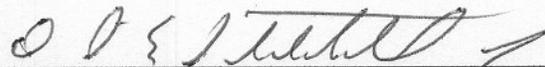
MBP:JDQ/cj

Attachment

CONCUR


Buddy Gratton, P.E., Director of Preconstruction

APPROVE


David E. Studstill, Jr., P.E., Chief Engineer

Project Concept Report
Project Number: CSCMQ-0006-00(807)
P.I. Number: 0006807
County: DeKalb

RECEIVED
MAR 09 2006
BY: _____

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

PROJECT CONCEPT REPORT

Project Number: CSCMQ-0006-00(807)
County: DeKalb
P. I. Number: 0006807

Federal Route Number: N/A
State Route Number: 60360, 176400

Perimeter Center Area Fiber Optic Interconnect at Several Locations

Recommendation for approval:

DATE 3/7/06

DATE 3-8-06

James E. Toben
Project Manager
Heidi Gold
State Traffic Safety & Design Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Program (RTP) and the State Transportation Improvement Program (STIP).

DATE 3/9/06

Joseph P. Pineda
State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Administrator

DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Operations Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer

Project Concept Report
Project Number: CSCMQ-0006-00(807)
P.I. Number: 0006807
County: DeKalb

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

PROJECT CONCEPT REPORT

Project Number: CSCMQ-0006-00(807)
County: DeKalb
P. I. Number: 0006807

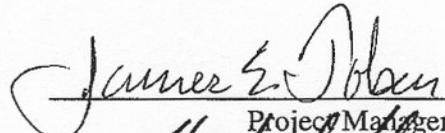
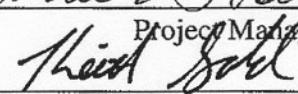
Federal Route Number: N/A
State Route Number: 60360, 176400

Perimeter Center Area Fiber Optic Interconnect at Several Locations

Recommendation for approval:

DATE 3-7-06

DATE 3-8-06


Project Manager

State Traffic Safety & Design Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Program (RTP) and the State Transportation Improvement Program (STIP).

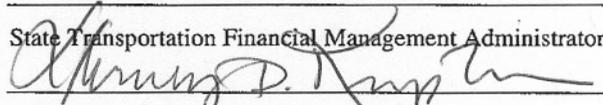
DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Administrator

DATE 3-21-06


State Environmental/Location Engineer

DATE _____

State Traffic Operations Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer

ATTACHMENT #2

NOTICE OF LOCATION AND DESIGN APPROVAL
PROJECT: CSCMQ-0006-00(807)-DEKALB COUNTY
P. I. NO. 0006807

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the location and Design of the above project.

Date of Location and Design Approval: APRIL 4, 2006

Project CSCMQ-0006-00(807) in DeKalb County consists of the installation of a 48 single mode fiber optic cable along certain road segments to fill in gaps in the area's fiber infrastructure. It also includes the installation of an Ethernet switch in 28 cabinets within the area and the installation of an aggregate switch to consolidate all communications to a single point.

Drawings of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

Mr. Jim Tolson, Traffic Design Manager
935 E. Confederate Avenue
Wayne Shackelford Building
Atlanta, GA 30316
(404) 635-8135
Email: jim.tolson@dot.state.ga.us

Any interested party may obtain a copy of the drawings or portions thereof by paying a nominal fee and requesting in writing to:

Keith Golden, P. E.
Office of Traffic Safety & Design
935 E. Confederate Avenue
Building 24
Atlanta, GA 30316
Email: keith.golden@dot.state.ga.us

Any written request or communication in reference to this project or notice should include the Project and P. I. Number as noted at the top of this notice.

Project Concept Report
Project Number: CSCMQ-0006-00(807)
P.I. Number: 0006807
County: DeKalb

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

PROJECT CONCEPT REPORT

Project Number: CSCMQ-0006-00(807)
County: DeKalb
P. I. Number: 0006807

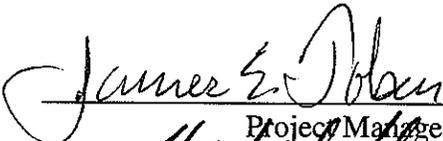
Federal Route Number: N/A
State Route Number: 60360, 176400

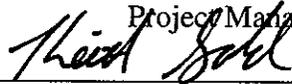
Perimeter Center Area Fiber Optic Interconnect at Several Locations

Recommendation for approval:

DATE 3/7/06

DATE 3-8-06



Project Manager


State Traffic Safety & Design Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Program (RTP) and the State Transportation Improvement Program (STIP).

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Administrator

DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Operations Engineer

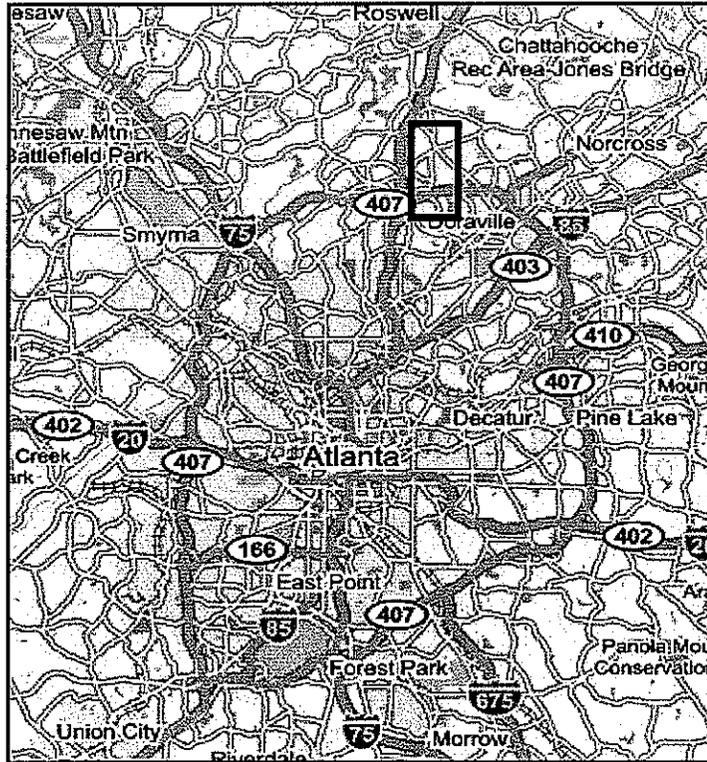
DATE _____

District Engineer

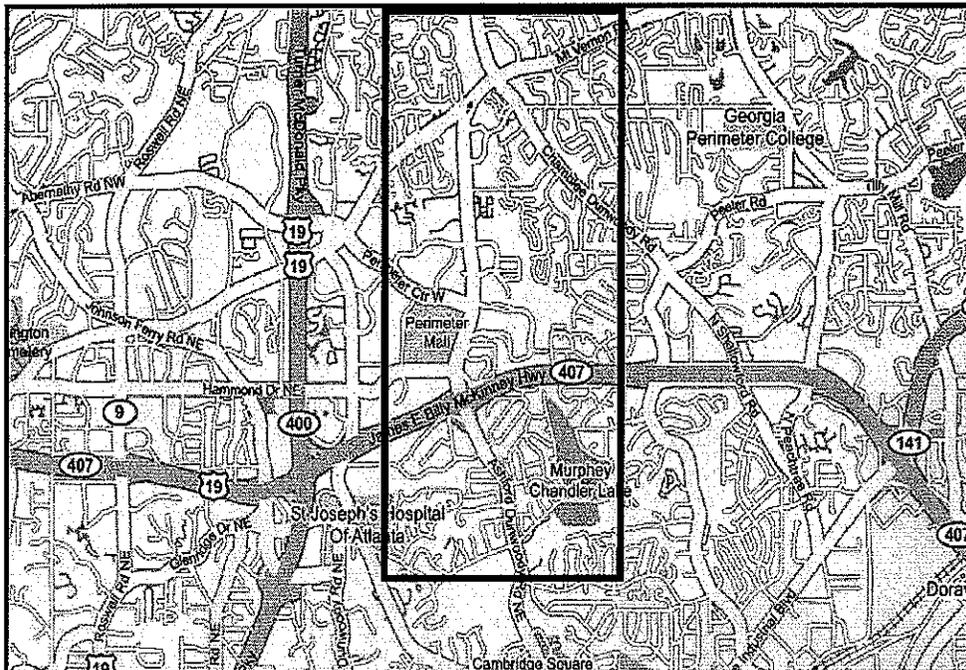
DATE _____

Project Review Engineer

PROJECT LOCATION MAP



Location of Project in DeKalb County



Need and Purpose:

The Perimeter Community Improvement Districts (PCIDs) represent the DeKalb and Fulton Perimeter CIDs which are home to the largest office park concentration in Metro Atlanta. The CIDs are also home to a large number of retail operations, contain a significant number of residential properties and are accessible via Interstate 285 (I-285) and GA Route 400 (GA400). The DeKalb Perimeter CID includes Perimeter Mall and numerous mixed-use developments.

A combination of growth and aging traffic control equipment within the DeKalb Perimeter CID has created unacceptable levels of congestion. Upgrades to traffic signal control equipment and communications hardware are needed to allow coordination of signals, reduce congestion and improve safety. There are a number of projects under construction or being implemented to address traffic signal and communication upgrades within various sections of the CID. However, these projects are interspersed throughout the CID and do not facilitate seamless traffic operations between the two CIDs.

A separate project for the Fulton Perimeter CID (GDOT PI# 0006817), which will be let at the same time as this project for the DeKalb Perimeter CID, will also fill in the gaps in the system by implementing upgrades to traffic control and communications equipment within the PCIDs to achieve seamless traffic signal operations between the two CIDs. This communication network will allow for coordination of traffic signals which will improve progression, particularly across the DeKalb-Fulton County line, and accommodate additional traffic demands placed on the roadway network.

Description of the proposed project:

This project includes the installation of:

- 48 single mode fiber optic cables along certain road segments to fill in gaps in the area's fiber infrastructure
- A field (Ethernet) switch in approximately twenty-eight (28) traffic signal controller cabinets within the area
- An aggregation switch to consolidate all communications to a single point which will interface with the GDOT NaviGator network
- Closed Circuit Television (CCTV) cameras at locations to be determined
- Intersection Video Detection Systems (IVDS) at locations to be determined
- 332 Cabinet/2070L Controller upgrades at locations to be determined
- A Traffic Control Center (TCC) to be housed in the PCID headquarters

An underground single mode 48 fiber optic cable trunk line will be installed along the following road segments:

- Hammond Drive: from Shopping Center Driveway to DeKalb/Fulton County Line
- Meadow Lane Road: from Perimeter Center West to Ashford Dunwoody Road
- Parkside Place NE: from Lake Hearn Drive NE to Perimeter Summit Parkway

A field (Ethernet) switch will be potentially installed in each of the traffic signal controller cabinets at the following intersections:

1. Ashford Dunwoody @ Mount Vernon Rd	2. Hammond Drive @ Perimeter Center Parkway
3. Ashford-Dunwoody Road @ Ashford Center Pkwy	4. Perimeter Center West @ Perimeter Center Place
5. Ashford-Dunwoody Road @ Valley View Road	6. Perimeter Center West @ Perimeter Center Parkway
7. Ashford-Dunwoody Road @ Ashwood Pkwy	8. Perimeter Center West @ Bed, Bath & Beyond D/W
9. Ashford-Dunwoody Road @ Ravinia/Perimeter Mall Entrance	10. Perimeter Center West @ Crown Pointe Parkway
11. Hammond Drive @ Shopping Center Driveway	12. Lake Hearn Drive @ Perimeter Summit Parkway
13. Ashford-Dunwoody Road @ Perimeter Center North	14. Perimeter Center Pkwy. Ext. at Marriott/Goldkist Driveway
15. Ashford-Dunwoody Road @ Lake Hearn Drive	16. Perimeter Center Pkwy. Ext. at Lake Hearn Drive
17. Ashford-Dunwoody Road @ Ashford Green	18. Ashford-Dunwoody Road @ Meadow Lane
19. Ashford-Dunwoody Road @ Perimeter Summit Pkwy	20. Ashford-Dunwoody Road @ Perimeter Center West
21. Perimeter Summit Parkway @ Parkside Place	22. Ashford-Dunwoody Road @ Perimeter Center East
23. Lake Hearn Drive @ Parkside Place	24. Ashford-Dunwoody Road @ Hammond Dr
25. Perimeter Center Parkway @ MARTA Driveway	26. Ashford-Dunwoody Road @ I-285 EB Off Ramp
27. Perimeter Center Parkway @ Perimeter Mall Entrance	28. Ashford-Dunwoody Road @ I-285 WB Off Ramp

Is the project located in a Non-attainment area? Yes No.

PDP Classification: Major Minor

Federal Oversight: Full Oversight (), Exempt(X), State Funded(), or Other ()

Functional Classification: _____

Perimeter Center West	Minor Arterial Street
Ashford Dunwoody Road	Urban Principal Arterial/Minor Arterial Street
Hammond Drive	Collector Street

U. S. Route Number(s): N/A

State Route Number(s): 60360, 176400

Traffic (AADT):

Current Year: (2004) Varies Design Year: (20YY) N/A

Hammond Drive (Ashford Dunwoody Road to Fulton County Line)..... 8520
 Meadow Lane Road (Perimeter Center West to Ashford Dunwoody Road)..... 1560
 Parkside Place NE (Lake Hearn Drive to Perimeter Summit Pkwy)..... 1560
 Ashford Dunwoody Road (Perimeter Summit Pkwy to Mount Vernon Road).... 39430
 Perimeter Center West (Ashford Dunwoody Road to Fulton County Line)..... 20150
 Perimeter Center Pkwy (Lake Hearn Drive to Perimeter Center West)..... 1560
 Lake Hearn Drive (Parkside Place to Fulton County Line)..... 1560
 Perimeter Summit Pkwy (Ashford Dunwoody Road to Fulton County Line)..... 1560

Existing design features:

- Typical Section: (*Describe number & width of lanes, turn lanes, curb & gutter, sidewalks, etc.*): **Various**
- Posted speed: **Varies 35 MPH-45 MPH** Maximum degree of curvature: **N/A**
- Maximum grade: **N/A**
- Width of right of way: **Various**
- Major structures: *None*
- Major interchanges or intersections along the project:
Refer to Table on Page 3
- Existing length of roadway segment: *6.3 miles*

Proposed Design Features:

- Proposed typical section(s): **Existing sections will remain**
- Proposed Design Speed Mainline: **N/A**
- Proposed Maximum grade Mainline: **N/A** Maximum grade allowable **N/A**
- Proposed Maximum grade Side Street: **N/A** Maximum grade allowable **N/A**
- Proposed Maximum grade driveway: **N/A**
- Proposed Maximum degree of curve: **N/A** Maximum degree allowable: **N/A**
- Right of way: **Existing right-of-way width will remain**
 - Width _____.
 - Easements: Temporary (), Permanent (), Utility (), Other ().
 - Type of access control: Full (), Partial (), By Permit (), Other ().
 - Number of parcels: _____ Number of displacements:
 - Business: _____
 - Residences: _____
 - Mobile homes: _____
 - Other: _____
- Structures:
 - Bridges: **N/A**
 - Retaining walls: **N/A**

- Major intersections and interchanges. *Refer to Table on Page 3*

- Traffic control during construction:

Project construction will take place within existing right-of-way. Lane closures may be required when installing CCTV camera poles. In addition, traffic may be interrupted while construction personnel monitor the location of the directional bore drill head when crossing under roadways. Traffic signals will remain functioning during the construction.

- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	()	()	(X)
ROADWAY WIDTH:	()	()	(X)
SHOULDER WIDTH:	()	()	(X)
VERTICAL GRADES:	()	()	(X)
CROSS SLOPES:	()	()	(X)
STOPPING SIGHT DISTANCE:	()	()	(X)
SUPERELEVATION RATES:	()	()	(X)
HORIZONTAL CLEARANCE:	()	()	(X)
SPEED DESIGN:	()	()	(X)
VERTICAL CLEARANCE:	()	()	(X)
BRIDGE WIDTH:	()	()	(X)
BRIDGE STRUCTURAL CAPACITY:	()	()	(X)

- Design Variances: *None Anticipated*
- Environmental concerns: *None Anticipated*
- Level of environmental analysis anticipated:
 - Are Time Savings Procedures appropriate? Yes (X), No () ,
 - Categorical exclusion (X),
 - Environmental Assessment/Finding of No Significant Impact (FONSI) () , or
 - Environmental Impact Statement (EIS) () .
- Utility involvements: *New trunk fiber will be installed underground. Will coordinate with utility owners during construction.*

Project responsibilities:

- Design: *URS Corporation on behalf of PCID*
- Right of Way Acquisition: *None Required*
- Relocation of Utilities: *None Required*
- Letting to contract: *PCID*
- Supervision of construction: *PCID*
- Providing material pits: *None Anticipated*
- Providing detours: *None Anticipated*

Coordination

- Initial Concept Meeting date and brief summary. *To be determined.*
- Concept meeting date and brief summary. *To be determined.*
- P. A. R. meetings, dates and results. *None Required*
- Public involvement. *No public meetings are anticipated*
- Local government comments. *None*
- Other projects in the area:
 - Perimeter Center West Streetscapes & Intersections (GDOT PI# 0004831)
 - Perimeter Center Parkway LCI
 - Perimeter Center Parkway Streetscapes & Intersections (GDOT PI# 0004424)
 - Perimeter Center South Sidewalks & Intersections (GDOT PI# 0004828)
 - Perimeter Center Central Sidewalks & Intersections
 - Perimeter Center North Sidewalks & Intersections

- Central PCID ATMS/Signal Synchronization
- Perimeter Center Parkway Flyover Bridge (GDOT PI# 0000949)
- GDOT/DeKalb 157
- Ashford-Dunwoody Road @ I-285 Interchange
- Other coordination to date. *None*
- Railroads. *None*

Scheduling – Responsible Parties’ Estimate

- Time to complete the environmental process: *3 Months*
- Time to complete preliminary construction plans: *4 Months*
- Time to complete right of way plans: *N/A*
- Time to complete the Section 404 Permit: *N/A*
- Time to complete final construction plans: *2 Months*
- Time to complete to purchase right of way: *N/A*

Other alternates considered:

Alternative #1: *No Build*

Alternative #2: *Considered aerial installation of the fiber optic cable but because of the existing aerial utilities and anticipated make-ready work, it was decided that underground installation by directional boring was the most practical way to install the cable.*

Comments:

This project is 100% in DeKalb County, GDOT District 7 and Congressional District No. 11.

Attachments:

1. Cost Estimate
2. Notice of Location and Design Approval
3. Concept Report Rating Form

ATTACHMENT #1

PROJECT CONCEPT COST ESTIMATE

**DeKalb Perimeter Center Area Fiber Interconnection
 CSCMQ-0006-00 (807)
 DeKalb County
 Quantities and Cost Summary
 Concept Cost Estimate**

Item Code	Description	Unit	Quantity	Engineer Estimate	
				Unit Price (\$)	Amount (\$)
150-1000	Traffic Control - CSCMQ-0006-00 (807)	Lump Sum	Lump	\$50,000	\$50,000
639-3004	Steel Strain Pole, Type IV -35' (PCID "Standards")	Each	10	\$16,000	\$160,000
647-1000	Traffic Signal Installation No # (Cabinet/Controller Upgrades)	Each	4	\$15,000	\$60,000
682-6231	Conduit, Nonmetl, TP 3, 2 IN (FOR POWER)	Lin Ft	2,000	\$6	\$12,000
XXX-XXXX	Conduit, 48- Fiber, Pull Boxes, Reel Fusion Splices/Closures	Lin Ft	6,900	\$32	\$220,800
935-1509	Outside Plant Fiber Optic Cable, Drop, SM, 4 Fiber	Lin Ft	700	\$3	\$2,100
935-3101	Fiber Optic Closure, Underground, 6 Fiber	Each	14	\$400	\$5,600
935-3401	Fiber Optic Cable, FDC (Rack Mounted), 6 Fiber	Each	14	\$600	\$8,400
935-4010	Fiber Optic Splice, Fusion	Each	40	\$50	\$2,000
935-8000	Testing	Lump Sum	Lump	\$10,000	\$10,000
936-1001	CCTV System, Type B	Each	10	\$12,000	\$120,000
936-8000	Testing	Lump Sum	Lump	\$10,000	\$10,000
936-8500	Training	Lump Sum	Lump	\$10,000	\$10,000
938-1100	Intersection Video Detection System Assembly, Type A	Each	5	\$8,725	\$43,625
938-8000	Testing	Lump Sum	Lump	\$7,500	\$7,500
938-8500	Training	Lump Sum	Lump	\$7,500	\$7,500
939-1190	Video Encoder, Type A	Each	10	\$5,000	\$50,000
939-2300	Field Switch, Type A	Each	28	\$4,000	\$112,000
939-4040	Type D Cabinet	Each	10	\$4,000	\$40,000
939-5020	Electrical Power Service	Each	10	\$5,000	\$50,000
939-XXXX	Aggregation Switch	Each	1	\$25,000	\$25,000
939-8000	Testing	Lump Sum	Lump	\$10,000	\$10,000
939-8500	Training	Lump Sum	Lump	\$10,000	\$10,000
XXX-XXXX	Traffic Control Center Access & Equipment	Lump Sum	Lump	\$300,000	\$300,000
Total Estimate					\$1,326,525