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Acronyms

## <u>ACRONYMS</u>

LIST OF ACRONYMS AND ABBREVIATIONS USED IN THE RECOMMENDATION

AA	Allocation Area
AAIS	Assignment, Activation and Inventory Service System
ACG	Access Carrier Gateway
ACO	Area Central Office
ADSL	Asymmetrical Digital Subscriber Line
AIN	Advanced Intelligent Network
ALEC	Alternative Local Exchange Company
АМ	Administrative Module
AO	Account Owner
APC	Assignment Provisioning Center
API	Application Program Interface
ARC	Automated Routing and Completion
ASR	Access Service Request
ATCUP	Automated Tool for CLEC User Profile
ATM	Asynchronous Transfer Mode
ATP	Authorization to Proceed
AT&T	AT&T Communications of the Southern States
AWAS	Automated Work Administration System
В&С	Billing and Collection
BARRA	A financial data firm that provides beta estimates
BEX	Business Express
BFR	Bona Fide Request
BH Table	CLEC line Screening table
BR	Brief
BRI	Basic Rate Interface (i.e., Integrated Services Digital Network - ISDN-BRI)
BRPC	Business Response Provisioning Center
BST or	BellSouth Telecommunications, Inc.
BellSouth	
BSTLM	BellSouth Telecommunications Loop Model
ВТ	Building Terminal
BVT	Billing, Voucher, Treatment (System)
BZT	Business Zone Technicians
CABS	Carrier Access Billing System
Caller ID	Caller Identification
CALRA	Centralized Automated Loop Reporting System

CAMS - CABS	Carrier Access Management System - Carrier Access
	Billing System
САРМ	Capital Asset Pricing Model
CASS	Carrier Access Support System
CBSS	Customer Billing Services System
CBSS CIA	CBSS Customer Information Application
CBSS MIS	CBSS Management Information System
CC	Common Carrier
CCS7	Common Channel Signaling System 7
CDT	CLEC Dedicated Transport
CEV	Controlled Environmental Vault
CFR	Code of Federal Regulations
CKT ID	Circuit Identifier
CLASS	Custom Local Area Signaling Service
CLEC	Competitive Local Exchange Carrier
CLR/DLR	Circuit/Design Layout Reports
CMDS	Centralized Message Distribution System
СМР	Communications Module Processor
CNAM	Calling Name Database Service
CNAS	Circuit Network Administration System
СО	Central Office
CO I&M	Central Office Installation and Maintenance
COMPUSTAT	A financial database
COSS	CLEC Operational Support System
COT	Central Office Technician
CRB	Customer Records and Billing
CSA	Carrier Serving Area
CSI	Customer Service Inquiry
CSO	Customer Service Organization
CSR	Customer Service Record
CZT	Customer Zone Technicians
DA	Directory Assistance or Distribution Area
DAML	Digital Added Main Lines
DBAC	Database Administration Center
DBM	Database Management
DCF	Discounted Cash Flow
DCOP	Dedicated Central Office Plant
DD	Due Date
DGF	Data Gathering Form
DID/DOD	Direct Inward Dialing/Direct Outward Dialing
DLC	Digital Loop Concentrator or Digital Loop Carrier

DLEC	Data Local Exchange Carrier
DLR	Design Layout Record
DN	Docket Number
DRC	Dispatch Resource Center
	Division Resource Management
DSAL	Dedicated Switched Access Lines
DSAT	Dedicated Switched Access Transport
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Line Access Multiplexer
DSX	Digital System Cross-Connect Frame
DT	Distribution Terminal
D&E	Development of new systems and enhancements to
	existing systems
d/b/a	Doing business as
EBAC	Equipment Billing Accuracy Center
ECT	Enhanced Copper Technologies
EDI	Electronic Data Interchange
EDS	Electronic Data Systems, Inc.
EDT	Express Dial Tone
EEL	Enhanced Extended Link
EF&I	Engineered, Furnished, and Installed
EIS	Expanded Interconnection Services
EMR	Exchange Message Record
EWO	Engineering Work Order
EXACT/TUF	Exchange Access Control and Tracking/Translation to USOCS and FIDS
EXH	Exhibit
E&I	Engineer and Install
FCC	Federal Communications Commission
FCCA	Florida Competitive Carriers Association
FCTA	Florida Cable Telecommunications Association, Inc.
FDI	Feeder Distribution Interface
FIFO	First In First Out
FITL	Fiber-In-The-Loop
FLEC	Forward-Looking Economic Cost
FDN	Florida Digital Network, Inc.
FOC	Firm Order Confirmation
FPSC	Florida Public Service Commission
FRN	Facility Reservation Number
Ft.	Feet
F.S.	Florida Statutes

GAAP	Generally Accepted Accounting Principles
GIS	Geographic Information System
GOLD	Gathering On Line Data
GTEFL	GTE Florida Incorporated
GTT	Global Title Transactions
HAI model	Formerly Hatfield model
HCPM	Hybrid Cost Proxy Model
HDSL	High Bit-Rate Digital Subscriber Line
IBES	Institutional Brokerage Estimate System
ICB	Individual Case Basis
ICM	Integrated Cost Model
ID	Identification
IDF	Intermediate Distribution Frames
IDLC	
IDLC	Integrated Digital Loop Carrier
	Integrated Digital Subscriber Line
IDST	Integrated Digital Service Terminal
IDT	Interoffice Dedicated Transport
ILEC	Incumbent Local Exchange Company
INC	Intra-building Network Cable
INP	Interim Number Portability
IOF	Interoffice Facility
IOSC	Item of Service Code
IR	Incident Report
ISDL	Integrated Services Digital Subscriber Line
ISDN	Integrated Services Digital Network
ISUP	Integrated Services User Port
ITDP	Information Technology and Data Processing
IXC	Interexchange carrier
kft	Kilofeet (Also Kft. and kf)
LBSC	Large Business Support Center
LCC	Line Class Code
LC&I PMO	Local Competition and Interconnection Program
	Office
LEA	Local Service Request Edit Application
LEC	Local Exchange Company
LFACS	Loop Facility Assignment Control System
LIA	Local Service Request Input Application
LIDB	Line Information Database
LIJ	Left-in-Jumper
LLR	Loaded Labor Rate
LMS	Link Monitoring System

LMU	Loop Make-Up
LNP	Local Number Portability
LSC	Local Service Confirmation
LSR	Local Service Request
LST	Line and Station Transfer
L&B	Land and Building
MARK	Mechanized Assignment & Record Keeping system
MDF	Main Distribution Frame
MDTE	Massachusetts Department of Telecommunications and
	Energy
MDU	Multiple Dwelling Unit
MGC	MGC Communications, Inc.
MLPQ	Mechanized Loop Pre-Qualification
MOG	Mass Order Generator
MOU	Minutes of Use
MPOE	Minimum Point of Entry to the Customer Premises
MRC	Monthly Recurring Charge
MSA	Metropolitan Statistical Area
MSRT	Minimum Spanning Road Tree
MST	Minimum Spanning Tree
MTU	Multi-Tenant Unit
MUTS	Mechanized Uncollectible Tracking System
NACC	National Access Customer Center
NASSC	National Access Subscription Services Center
NCAT	Network Cost Analysis Tool
NCBD	National Customer Bill Development
NEAC	National Exchange Access Center
NGDLC	Next Generation Digital Loop Carrier
NID	Network Interface Device
NMC	National Market Center
NOCV	National Order Collection Vehicle
NOREC	National Order/Referral Entry Center
No.	Number
NRC	Non-Recurring Charge
NRCM	Non-Recurring Cost Model
NTW	Network Terminating Wire
OCS	Other Carrier Systems
OCSS	Other Carrier Settlement Systems
OMT	Open Market Transition
OPC	Originating Point Code
OPSE	Outside Plant Engineering

OSP	Outside Plant
oss	Operation Support Systems
0&T	One Plus Terminating Usage
PBX	Private Branch Exchange
PCO	Plant Control Office
PIC	Primary Interconnection Carrier
POD	Production of Documents
PON	Purchase Order Number
POP	Point of Presence
POTS	Plain Old Telephone Service
Powerbase	Master Database of Customers fed by CBSS
PRI	Primary Rate Interface
PSC	Public Service Commission
PSE	Plant Specific Expense
PSP	Product Service Provider
PTD	Plant Test Date
QMR	Query Management Report
RAF	Regulatory Assessment Fee
RAO	Revenue Accounting Office
RBHC	Regional Bell Holding Companies
RC	Recurring Charge
RCF	Remote Call Forwarding
RCMAC	Recent Change Mechanized Assignment Center
RDM	Reporting and Distribution Module
RMA	Requiring Manual Intervention
RMG	Resource Management Group
RPMS	Retail PIC Management System
RRD	Revised Resistance Design
RT	Remote Terminal
RTU Fee	Right-To-Use Fee
S&P	Standard & Poor's Industry Survey
SAC	Service Advocacy Center
SAI	Serving Area Interface
SAIC	Science Applications International Corporation
SAR	Service Activation Report
SBC	Southwestern Bell Telephone Company
SCIS	Switching Cost Information System
SCIS/IN	Switching Cost Information System/Intelligent Network
SCIS/MO	Switching Cost Information System/Model Office
SCM	Sprint Switching Cost Model

SCP	Service Control Point
SCR	Selective Carrier Routing
SDSL	Symmetric Digital Subscriber Line
SEC	Securities and Exchange Commission
SE&P	Supporting Equipment and Power Loadings
SI	Service Inquiry
SIGS	Secure Integrated Gateway System
SIR	Systems Information Repository database
SL	Service Level
SLCM	Sprint Loop Cost Model
SM	Switch Module
SMEs	Subject Matter Experts
SMS	Service Management System or Switch Modules
SODA/DDM	Service Order Distribution and Analysis/Due Date
	Management system
SOE	Service Order Entry System
SONET	Synchronous Optical Network
SOP	Service Order Processor
SORCES	Service Office Record and Computer Entry System
SPAG	Special Products Assignment Group
Sprint	Sprint-Florida, Incorporated
SRT	Service Readiness Testing
SS	Subscription Services
SS7	Signaling System 7
SSI&M	Special Services Installation & Management
STAR	Standard Time and Activity Reporting
STI	Standard Time Increment
STP	Signaling Transfer Point
SWC	Serving Wire Centers
TAS	Trouble Administration System
TBS	Telecom Business Systems
ТСАР	Transaction Capabilities Application Part
ТСМ	Sprint Transport Cost Model
ТDO	Temporary Disconnect Order
TFC	Toll-Free Code
TELRIC	Total Element Long-Run Incremental Cost
TFP	Total Factor Productivity
TN	Telephone Number
TNM	Total Network Management
TPI	Telephone Plant Index
TR	Transcript

# DOCKET NO. 990649B-TP

DATE: October 2, 2002

TSLRIC	Total Service Long-Run Incremental Costs			
UCL	Unbundled Copper Loop			
UDC	Universal Digital Channel			
UDF	Unbundled Dark Fiber			
UDLC	Universal Digital Loop Carrier			
UL	Unbundled Loop			
UMS	Usage Measurement System			
UNE	Unbundled Network Element			
UNE-P	Unbundled Network Element-Platform			
USF	Universal Service Fund			
USL-D	Sub-Loop Distribution			
USL-F	Sub-Loop Feeder			
USLC	Unbundled Subloop Concentration			
USOA	Uniform System of Accounts			
USTA	United States Telephone Association			
Verizon	Formerly GTE Florida Incorporated			
Verizon NS	Verizon Network Services			
VerizonLD	Verizon Long Distance			
VFAC	Virtual Facilities Assignment Center			
VG	Voice Grade			
WCC	Work Control Center			
WDA	Work Distributor Application			
WEFA	Wharton Econometric Forecasting Associates			
WFA	Work Force Administration			
WISE	Wholesale Internet Service Engine			
WMC	Work Management Center			
WMP	WISE Measurements of Performance			
WorldCom	MCIMetro Access Transmission Services, LLC, and			
	WorldCom Technologies, Inc.			
xD Table	CLEC identification table			
xDSL	"x" distinguishes various types of DSL			
Zacks	A firm that provides earnings estimates			

Case Background

## CASE BACKGROUND

The federal Telecommunications Act of 1996 (Act) made sweeping changes to the regulation of telecommunications common carriers in this country. Of particular importance, it provided for the abolition nationwide of the incumbent local exchange carriers' monopolies over the provision of local exchange service. The Act envisioned three strategies for firms to enter the local exchange services market: (1) through resale of the incumbent's services; (2) via pure facilities-based offerings, thus only requiring a competitor to interconnect with the incumbent's network; and (3) through a hybrid involving the leasing of unbundled network elements (UNEs) of the incumbent's network facilities, typically in conjunction with network facilities owned by the entrant.

Although the Act generally spelled out the broad policy terms, the implementation details were left to the Federal Communications Commission (FCC). Specifically, the Act required that the FCC promulgate rules to implement the resale, interconnection, and UNE requirements within six months after passage of the Act. The rules subsequently established by the FCC provided detailed implementation requirements for pricing and provision of services. Of importance to this docket, the FCC's Local Competition Order, released August 8, 1996, included in its pricing rules Rule 51.507(f), which requires each state commission to establish rate zones for UNEs (the deaveraging rule). That rule states:

State commissions shall establish different rates for elements in at least three defined geographic areas within the state to reflect geographic cost differences. (EXH 1, 47 CFR §51.507(f))

Since their establishment, these pricing rules have been the subject of a number of court decisions and FCC actions, which have directly impacted this issue and its resolution.

## RECENT COURT DECISIONS

On May 13, 2002, the Supreme Court upheld the FCC's TELRIC pricing standard, stating that "[t]he FCC can require state commissions to set the rates charged by incumbents for leased elements on a forward-looking basis untied to the incumbent's investment." The Court rejected the incumbents' arguments that rates must be tied to past costs. The Court also held that the FCC can require incumbents to combine elements of their networks for competitors in certain circumstances. (Verizon Communications Inc., et al. v. Federal Communications Commission, et al., 152 L. Ed. 2d 701, 122 S. Ct. 1646, 2002 U.S. Lexis 3559 (May 13, 2002))

On May 24, 2002, the Court of Appeals for the D.C. Circuit remanded the Local Competition Order and the Line Sharing Order to the FCC for consideration in accordance with the Court's findings. <u>United States Telecom Association v. FCC</u>, 290 F.3d 415 (D.C. Circuit 2002) In doing so, the court found that the FCC's uniform national unbundling requirement failed to evaluate the competitive impairment in any particular market. <u>Id</u>. at The court also found that the FCC's requirement to unbundle the high-frequency spectrum of the copper loop failed to consider the relevance of competition in broadband services from cable and satellite.

## PETITION OF THE COMPETITIVE CARRIERS

On December 10, 1998, in Docket No. 981834-TP, the Florida Competitive Carriers Association (FCCA), the Telecommunications Resellers, Inc. (TRA), AT&T Communications of the Southern States, (AT&T), MCIMetro Access Transmission Services, LLC and Inc. WorldCom Technologies, Inc. (MCI WorldCom), the Competitive Telecommunications Association (Comptel), MGC Communications, Inc. (MGC), Intermedia Communications Inc. (Intermedia), Supra Telecommunications and Information Systems (Supra), Florida Digital Network, Inc. (FDN), and Northpoint Communications, Inc. (Northpoint) (collectively, "Competitive Carriers") filed their Petition of Competitive Carriers for Commission Action to Support Local Competition in BellSouth's Service Territory. Among other matters, the Competitive Carriers' Petition asked that this Commission set deaveraged unbundled network element (UNE) rates.

On May 26, 1999, this Commission issued Order No. PSC-99-1078-PCO-TP, granting in part and denying in part the Competitive Carriers' petition. Specifically, the Commission granted the request to open a generic UNE pricing docket for the three major incumbent local exchange providers, BellSouth Telecommunications, Inc. (BellSouth), Sprint-Florida, Incorporated (Sprint), and GTE Florida Incorporated (GTEFL). Accordingly, this docket was opened to address the deaveraged pricing of UNEs, as well as the pricing of UNE combinations and nonrecurring charges. An administrative hearing was held on July 17, 2000, on the Part One issues identified in Order No. PSC-00-2015-PCO-TP, issued June 8, 2000.

Part Two issues, also identified in Order No. PSC-00-2015-PCO-TP, were heard in an administrative hearing on September 19-22, 2000. On August 18, 2000, Order No. PSC-00-1486-PCO-TP was issued granting Sprint's Motion to Bifurcate Proceedings, for a Continuance and Leave to Withdraw Cost Studies and Certain Testimony, as well as Verizon Florida Inc.'s (formerly GTEFL) Motion to Bifurcate and Suspend Proceedings.

By Order No. PSC-01-1592-PCO-TP, issued August 2, 2001, the controlling dates for Phase III were established. By Order No. PSC-01-2132-PCO-TP, issued October 29, 2001, the issues were established and the Docket was divided into 990649A-TP, in which filings directed towards the BellSouth track would be placed, and 990649B-TP, in which filings directed towards the Sprint-Verizon track would be placed. An administrative hearing was held on April 29-30, 2002.

#### POST-HEARING

Post-hearing briefs were filed on May 28, 2002. AT&T Communications of the Southern States, LLC (AT&T), WorldCom, Inc., on behalf of its Florida operating subsidiaries MCI WorldCom Communications, Inc., MCImetro Access Transmission Services, LLC, and Intermedia Communications, Inc. (collectively WorldCom), and Florida Digital Network, Inc. (FDN) filed a joint brief. For purposes of the Sprint phase of this docket, AT&T, WorldCom and FDN are collectively known as the "ALEC Coalition". On May 29, 2002, KMC TeleCom III, LLC, filed a letter adopting the position of the ALEC Coalition. The Florida Cable Telecommunications Association (FCTA) did not file a post-hearing brief but expressed a desire to remain a party.

#### RULINGS ON MOTIONS

On June 19, 2002, Sprint-Florida Inc. (Sprint) filed a Motion to Strike Portions of FDN's Post-Hearing Brief. In support of its Motion, Sprint alleges that FDN's use of facts from other proceedings to support its position are information outside the record, which does not qualify as competent substantial evidence upon which a decision may be based. On June 28, 2002, FDN filed its response, stating that Sprint's motion was procedurally improper. In Order No. PSC-02-1128-PCO-TP, issued August 19, 2002, the Commission denied Sprint's Motion, ruling that, as in past dockets, when a motion to strike portions of a post-hearing brief

is filed, the Commission has chosen to deny the motion and to ignore facts outside the record.

Issue I

**ISSUE 1**: What factors should the Commission consider in establishing rates and charges for UNEs (including deaveraged UNEs and UNE combinations)?

**RECOMMENDATION:** UNE rates should be set using the forward-looking cost standards authorized by Section 252(d)(1) of the 1996 Telecommunications Act, the FCC's rules and orders implementing that section of the Act, and the court decisions that affect those rules and orders. (Marsh)

#### POSITION OF THE PARTIES

**SPRINT**: UNE rates should be based on Sprint-Florida's forwardlooking economic costs as required by Section 252(d)(1) of the Telecommunications Act of 1996 and the FCC rules implementing the Act. This requirement applies to deaveraged UNEs, as well as combinations of UNEs.

**FDN**: FDN joins in Issue 1 of the Post-Hearing Brief of KMC Telecom III, LLC ("KMC Brief").

**KMC**: Sprint has not provided cost studies which are in accord with forward looking TELRIC principles and the UNE rates proposed by Sprint are higher than the rates charged for the corresponding end user services. The Commission should not approve prices which all but eliminate any possibility for the development of effective competition.

**<u>STAFF ANALYSIS</u>**: The Telecommunications Act of 1996 (the Act) states that network element rates

(A) shall be--

(i) based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element (whichever is applicable), and

(ii) nondiscriminatory, and

(B) may include a reasonable profit. (§252(d)(1)(A)(B))

The appropriate methodology as determined by the FCC is set forth in 47 C.F.R. § 51.505(b). Section 51.505(b) defines TELRIC as

. . . the forward-looking cost over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, such element, calculated taking as a given the incumbent LEC's provision of other elements.

(1) . . The total element long-run incremental cost of an element should be measured based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the existing location of the incumbent LEC's wire centers. (47 C.F.R. § 51.505(b))

Section 51.505(b) further provides that a forward-looking cost of capital and economic depreciation rates must be used. Section 51.505(a)(2) provides that the forward-looking cost of a UNE should include "[a] reasonable allocation of forward-looking common costs. . . " (47 C.F.R. § 51.505(a)(2))

## Parties' Arguments

Sprint witness Hunsucker states that

[a] fundamental objective of the Telecom Act of 1996 is to open all telecommunications markets to competition. Congress recognized that there are substantial barriers to entry into the local exchange market. In particular, the local exchange network is highly capital intensive. Facility-based entrants are confronted by the formidable hurdle of having to devote substantial capital resources, over an extended period of time, to construct a local network prior to winning any customers or generating any revenues. (TR 16-17)

Sprint witness Hunsucker contends that the use of forwardlooking economic costs to establish UNE rates is economically appropriate and is required by Section 252(d)(1) of the Act. He points out that the FCC adopted in its August 8, 1996 <u>First Report</u> <u>and Order</u> in Docket No. 96-98, the Total Element Long-Run

Incremental Cost (TELRIC) methodology. (TR 14-15) He explains that this nomenclature "reflects that the methodology is applied to the costing of discrete network elements or facilities, rather than the cost of a service or services provided over that facility." (TR 15)

Witness Hunsucker recognizes that there are differences between existing retail rate structures and levels and the rate levels and structures for unbundled network elements. (TR 22) He argues that

Consistent with the mandate of the Telecom Act of 1996, unbundled network elements should be priced at forwardlooking economic costs. To the extent that retail rate levels or rate structures are inconsistent with unbundled network element prices, those retail rates should be restructured to bring them into consistency with unbundled network prices. Alternatively stated, the answer lies in moving retail rates toward economic cost levels, and not in introducing distortions in the pricing of unbundled network elements to bring them into conformance with the uneconomic pricing of incumbent LEC retail services. (TR 22-23)

Witness Hunsucker argues that neither the Telecom Act nor the FCC rules place any limitation on UNE pricing relative to retail rates. (TR 55) He asserts that retail rates should be restructured to recover any costs of UNEs used in provisioning the service. (TR 56) He opines that "[i]n the interim, however, any attempt to bring this into conformance in this proceeding is misplaced. Such an effort is beyond the focus of this proceeding." (TR 56)

KMC witness Wood asserts that "the ILEC perspective on how the CLECs operate and use UNEs is incorrect, and the ILEC pricing proposals, if adopted, will make the present bad situation significantly worse." (TR 254) He continues that

In general, the ILECs fail to recognize the impact on competition of their ubiquitous local networks, which have been established over many decades at ratepayer expense and in fulfillment of their monopoly obligations to serve everyone. It would be great if the CLECs could instantly replicate the ILEC networks. But this is not the situation today. Rather, we must rely upon investor capital in a very different marketplace without the opportunity for any guaranteed return, and ultimately we must provide our investors with a return on their investment while growing the business.(TR 254)

Witness Wood opines that the use of UNEs to fill in its network is a vital component. (TR 257) However, he argues that the ILEC UNE proposals "have the potential to crush the CLEC industry." (TR 258) He urges that this Commission follow the actions of New York in setting a Sprint loop rate with an average of \$11.49, and set UNE prices "at a level that makes it economic for us to stay in these tier III markets . . . ." (TR 258) He notes that Sprint's proposed UNE rates are usually higher than its retail rates, in some cases substantially higher. (TR 260) He argues that the Commission must recognize that CLECs cannot compete when the UNEs for key components of services exceed the retail rates charged by Sprint. (TR 262-263) He urges that in evaluating Sprint's UNE proposal that the Commission choose assumptions in the model that will promote competition. (TR 263)

## <u>Analysis</u>

The Telecom Act and the FCC rules set out the criteria to be used in setting UNE rates. Staff agrees with witness Hunsucker that the relationship of UNE rates to retail rates is not one of the criteria to be used. Further, staff notes that the setting of retail rates is no longer under this Commission's jurisdiction. Rate-setting decisions must be based on forward-looking costs in accord with the Act's requirements.

#### CONCLUSION

UNE rates should be set using the forward-looking cost standards authorized by Section 252(d)(1) of the 1996 Telecommunications Act, the FCC's rules and orders implementing that section of the Act, and the court decisions that affect those rules and orders.

lssue 2(a)

**ISSUE 2(a)**: What is the appropriate methodology to deaverage UNEs and what is the appropriate rate structure for deaveraged UNEs?

**<u>RECOMMENDATION</u>**: Staff recommends that Alternative 1, the four zone deaveraging proposal discussed in staff's analysis, modified as necessary to acknowledge use of Commission-ordered loop costs, be adopted. Staff's recommended assignment of wire centers to rate zones is shown in Appendix B. (Dowds)

#### POSITION OF THE PARTIES

**SPRINT**: UNE prices should be deaveraged to the extent necessary to avoid significant deviations between the rate that is charged and the actual forward-looking costs of providing that element in a specific geographic area. At a minimum, prices should be deaveraged into at least three zones.

**FDN**: The Commission should adopt Sprint's 20% rate band geographic deaveraging methodology for the UNE loop costs in Sprint's service territory. The Commission must not approve the application of a deaveraging methodology where only a limited number of geographic areas have the lowest UNE prices available and competitive activity is not economically viable for ALECs seeking to serve outside those small areas.

**<u>KMC</u>**: KMC concurs with the position and analysis of Florida Digital Network (FDN).

#### **STAFF ANALYSIS**:

#### Parties' Arguments

Sprint Direct

In his direct testimony Sprint witness Hunsucker testifies that UNE rates should be deaveraged to the extent necessary ". . . to achieve a result wherein the averaged rate does not deviate significantly from the actual forward-looking cost of providing that element anywhere within the defined zone." (TR 24) Although he acknowledges that quantifying what is "significant" is not a precise exercise, the Sprint witness proposes that a difference between rates and costs in excess of 20% would be sufficient to distort ALECs' investment decisions. Given this standard, witness Hunsucker believes that an ILEC's deaveraged rate schedule should be such that ". . . the average rate in each zone is no more than 20% higher or 20% lower than the forward-looking cost of providing that element." (TR 24-25) The Sprint witness further notes that it follows from this standard that the extent to which deaveraging occurs likely will vary across UNEs and can differ among ILECs. Moreover, the appropriate number of rate zones may vary according to the element in question. (TR 25-26)

Witness Hunsucker offers criteria that Sprint believes should guide implementation of deaveraging. First, the extent to which rate deaveraging occurs should be tempered by administrative concerns as well as an evaluation of the degree to which a failure to deaverage would have a material impact on competitive and investment decisions. Second, he testifies that forward-looking costs should be deaveraged at the wire center level. Third,

incumbent LECs should be required to group wire centers into zones, and develop rates based on the weighted average cost of the UNE for all wire centers within each zone, subject to the constraint that the average rate for a UNE zone should not deviate by more than 20% from the wire center forward-looking cost of that UNE for any wire center included in that zone. (TR 27)

However, witness Hunsucker allows that it may be appropriate to relax the 20% criterion in the lowest and highest cost zones to provide for greater price/cost deviation; to do so, he states, acknowledges that the lowest and highest cost zones would tend to exhibit the greater cost variances, as well as a desire not to establish an excessive number of rate zones.(TR 26-27)

Sprint witness Hunsucker notes that his company scrutinized this Commission's orders in the BellSouth phase of this proceeding and generally has attempted to reflect the Commission's prior decisions in their filings. He testifies that since Sprint functions both as an ILEC and an ALEC in Florida, Sprint believes that the Commission's decisions should be applied on a state-wide, industry-wide basis. Witness Hunsucker asserts that Sprint should be treated the same as other ILECs in terms of cost methodologies and pricing principles, and Sprint the CLEC should be able to obtain UNEs in Florida whose prices were developed on a comparable basis to that used by Sprint (the ILEC) to derive prices for UNEs it is required to offer. (TR 23-24) Strict application of Sprint's 20% criterion yields nine distinct rate zones for unbundled UNE loops. (EXH 1, MRH-3.) "However, consistent with what the Commission mandated in the Phase II proceeding (BellSouth), Sprint aggregated wire centers in the high cost and low cost bands such that the distribution of lines in each band was consistent with the distribution required for BellSouth." (TR 37) According to Sprint witness Hunsucker's Exhibit MRH-2, collapsing the initial zones in this manner yields three zones, with a distribution of lines of approximately 60%, 30%, and 10%, respectively, in the three zones.

On April 10, 2002, Sprint witness Hunsucker submitted supplemental direct testimony, in which he presented a revised rate banding proposal and revised Exhibits MRH-1 (Sprint's proposed price list) and MRH-2 (collapsed rate banding proposal). He noted that it was Sprint's intent in its original filing for its banding proposal to "be consistent with the banding requirements placed on BellSouth in its phase of this proceeding to ensure implementation of a nondiscriminatory methodology on all carriers in the state of Florida." (TR 48) The Sprint witness testifies that Sprint based its initial distribution of lines to zones on a September 24, 2001 BellSouth compliance filing. However, witness Hunsucker states that Sprint subsequently discovered that the BellSouth compliance filing on which it had relied was incorrect. Noting that BellSouth submitted a corrected compliance filing on October 8, 2001, Sprint witness Hunsucker indicates that its rate banding proposal needs to be revised in order to be in accord with the relationships actually ordered for BellSouth. (TR 49)

Witness Hunsucker states that it is Sprint's understanding that while the Commission adopted Sprint's recommended 20% criterion, it chose to collapse the result of applying this approach in the BellSouth phase to three zones, based on two considerations: administrative ease and the level of variation in BellSouth's costs. (TR 50) He observes that in BellSouth's October 8, 2001 compliance filing, the SL1 wire center level costs ranged from \$8.21 to \$226.21, a multiple of 27. The Sprint witness notes that the wire center level costs for a 2-wire loop shown on his Exhibit MRH-3 range from \$11.78 to \$306.78, or a multiple of 26. Accordingly, he concludes that the level of cost variation is similar for Sprint and BellSouth. (TR 51)

Based on administrative ease and cost variation, witness Hunsucker proposes three UNE rate zones for Sprint. Starting with the nine zones on his Exhibit MRH-3, he proposes to collapse zones 1 and 2 to yield new Zone 1; collapse zones 3 and 4 to yield new Zone 2; and collapse zones 5 through 9 to yield new Zone 3. (TR 51) Zone 1 consists of 20% of Sprint's wire centers and 38% of lines; Zone 2 contains 41% of the wire centers and 51% of the lines; and Zone 3 has 39% of the wire centers and approximately 11% of the access lines. (EXH 1, Revised Exhibit MRH-2)

#### ALECs

There is very little ALEC testimony on this issue. KMC witness Wood observes that Sprint is proposing to collapse its existing six UNE loop rate bands into three. He mentions three central offices in which KMC has collocation facilities in Tallahassee: Tallahassee Calhoun, which is currently in Band 1; Tallahassee Willis Road, currently in Band 2; and Tallahassee Blairstone Road, in current Band 3. Witness Wood contends that Sprint's present 2-wire UNE loop rates for the first three bands are: Band 1, \$10.78; Band 2, \$15.41; and Band 3, \$20.54. However, he notes that under Sprint's proposed rate bands, all three of these central offices would be in Band 1, at a rate of \$21.22, a significant overall increase to KMC. (TR 259)

Witness Wood recommends that this Commission ". . . should carefully consider the proposed geographic deaveraging for loop prices, and if necessary, adopt more rather than fewer bands. This seems especially true for Sprint where the present 6 band approach results in rates that are at least tolerable [sic] Band 1 and Band 2 offices." (TR 263)

Although FDN submitted no testimony on this issue, in its brief FDN argues that Sprint deviates from its own deaveraging proposals and methodology, in order to be consistent with the Commission's findings in the BellSouth phase. FDN states that Sprint's analysis yields nine zones, but they propose only three zones; that Sprint proposes to deaverage only loops and related combinations, although Sprint acknowledges other elements that demonstrate geographic cost variability; and that Sprint does not apply its banding approach by UNE, but instead bases UNE zones for other elements on the assignments for the 2-wire loop. (BR at 2-3) FDN alleges that collapsing cost data for the low cost zones yields rates that deviate significantly from the underlying costs. FDN asserts that under Sprint's proposed zones an ALEC would pay \$18.58 for a 2-wire loop in Zone 1, even though two wire centers assigned

to this zone have costs per line less than \$12.00. (BR at 3) Rate structure distortions also are alleged to occur in Sprint's deaveraging of DS-1 loops, due to assigning wire centers to rate zones based on 2-wire loop relationships. (BR at 3-4) FDN concludes that "[t]he Commission should either strictly follow the 20% methodology and allow nine zones for 2-wire loops, and determine the appropriate number of zones and zone costs for each deaveraged element, or it should factor in competitive considerations as well." (BR at 4) Competitive considerations noted include whether too few wire centers are assigned to zone 1, or that the rate in zone 1 ". . . is too high to promote competition." (BR at 5)

## Sprint Surrebuttal

In response to KMC witness Wood's desire for more than three rate bands, Sprint witness Hunsucker testifies that in principle Sprint is not adverse to greater deaveraging. However, he notes that while Sprint offered a deaveraging proposal in the BellSouth phase that yielded more than three rate bands, the Commission essentially collapsed that proposal into three zones. Witness Hunsucker concludes that Sprint would be at a competitive disadvantage if it were required to deaverage more than was ordered for BellSouth. (TR 57)

## <u>Analysis</u>

As noted above, application of Sprint's +/- 20% rate banding criterion yields nine distinct rate zones; however, to be roughly consistent with the rate bands approved for BellSouth, Sprint proposes to collapse these nine bands into three zones, to approximate BellSouth's distribution of lines for its three rate zones. For ease of reference, Table 2a-1 contains data on Sprint's non-collapsed nine zones for the 2-wire loop, and Sprint's three zone proposal. This table shows the number of wire centers and lines associated with each band, and the band's rate (based on Sprint's cost results) that would result. Again, Sprint collapsed Bands 1 and 2 to arrive at its proposed Band 1; Bands 3 and 4 to yield its Band 2; and the remaining five bands equal proposed Band 3.

TABLE 2(a)-1: Sprint Deaveraging Analysis - Non-Collapsed						
Band	Wire Centers	Total Lines	Percent Lines	Rate		
1	4	111,921	5.11%	\$ 12.27		
2	23	716,638	32.70%	\$ 19.57		
3	34	849,845	38.77%	\$ 27.68		
4	20	265,211	12.10%	\$ 38.54		
5	28	202,255	9.23%	\$ 57.42		
6	8	23,091	1.05%	\$ 83.91		
7	7	12,795	0.58%	\$ 109.88		
8	8	9,366	0.43%	\$ 151.99		
9	1	744	0.03%	\$ 306.78		
	133	2,191,866	100.00%	\$ 30. 00		

Sprint Proposed							
Band	Wire Centers	Total Lines	Percent Lines	Rate			
1	27	828,559	37.80%	\$ 18.58			
2	54	1,115,056	50.87%	\$ 30.26			
3	52	248,251	11.33%	\$ 66.91			
	133	2,191,866	100.00%	\$30.00			

Source: EXH 1, Exhibits MRH-3 and Revised MRH-2.

KMC witness Wood's primary concern appears to be that the Commission-ordered deaveraging will result in a rate structure (and rates) that differs from that in Sprint's current tariff, and that it results in rate increases to KMC. Although staff is sympathetic to the KMC witness' concern, we believe that the Commission's decision on this issue must be guided by the FCC's deaveraging rule, Rule 51.507(f), which provides that "State commissions shall establish different rates for elements in at least three different geographic areas within the state to reflect geographic cost differences." (Emphasis added) Moreover, we agree with witness Wood that the Commission should consider whether it is appropriate to adopt more than three bands; however, as the Commission concluded in the BellSouth phase, staff believes that such a decision should also consider administrative ease and a rate structure that reflects the level of variation in Sprint's costs. Similarly, in its brief FDN argues that Sprint should either adopt the nine zones that result from its methodology, or consider "competitive considerations" such as the number of wire centers assigned to a zone or whether the rate in the initial zone "is too high to promote competition." We believe FDN's first competitive consideration would be addressed when evaluating administrative ease and level of cost variation; however, staff believes FDN's second factor likely is too subjective to successfully implement.

Based on staff's review of the non-collapsed data shown in Table 2a-1, we believe that in principle there are several viable alternative deaveraging options, in addition to Sprint's proposal. Using Sprint's data we have generated four additional alternatives; these are shown in Table 2a-2.

	TABLE $2(a) - 2$ : Al	ternative Deaverag	ing Proposals	
		Alternative 1		
Band	Wire Centers	Total Lines	Percent Lines	Rate
1	27	828,559	37.80%	\$ 18.58
2	34	849,845	38.77%	\$ 27.68
3	20	265,211	12.10%	\$ 38.54
4	52	248,251	11.33%	\$ 66.91
	133	2,191,866	100.00%	\$ 30.00
		Alternative 2		
Band	Wire Centers	Total Lines	Percent Lines	Rate
1	27	828,599	37.80%	\$ 18.58
2	34	849,845	38.77%	\$ 27.68
3	72	513,462	23.43%	\$ 52.2
	133	2,191,866	100.00%	\$30.00
		Alternative 3		
Band	Wire Centers	Total Lines	Percent Lines	Rate
1	4	111,921	5.11%	\$ 12.2
2	23	716,638	32.70%	\$ 19.5
3	34	849,845	38.77%	\$ 27.6
4	20	265,211	12.10%	\$ 38.5
5	52	248,251	11.33%	\$ 66.9
	133	2,191,866	100%	\$ 30.0
		Alternative 4		
Band	Wire Centers	Total Lines	Percent Lines	Rate
1	4	111,921	5.11%	\$ 12.2
2	23	716,638	32.70%	\$ 19.5
3	34	849,845	38.77%	\$ 27.6
4	72	513,462	23.43%	\$ 52.2
	133	2,191,866	100.00%	\$ 30.00

As noted above, Sprint's Band 1 equals uncollapsed Bands 1 and 2; proposed Band 2 equals uncollapsed Bands 3 and 4; and Sprint's Band 3 equals Bands 5 through 9. Alternative 1 differs from Sprint's proposal by not combining uncollapsed Bands 3 and 4, but leaving them as separate zones; these two bands contain approximately 39% and 12%, respectively, of Sprint's access lines, and there is a fairly significant cost break between these two zones. Alternative 2 is derivative from Alternative 1, except that Alternative 1's Bands 3 and 4 (or equivalently, uncollapsed bands 4 through 9) are collapsed into a single zone. This results in a three zone option that yields, relative to Sprint's proposal, lower rates in Bands 2 and 3. Alternative 3 takes Alternative 1 but does not combine uncollapsed Bands 1 and 2 into a single zone. Relative to Alternative 1, Alternative 3 has a lower Band 1 rate and a slightly higher Band 2 rate; however, the new Band 1 only contains 4 wire centers and accounts for about 5% of Sprint's lines. Finally. Alternative 4 is Alternative 2 without combining uncollapsed Bands 1 and 2.

Staff believes that there are advantages and disadvantages to Sprint's proposal and to each of the four alternatives discussed above. Sprint's proposal presumably was driven by a desire to have zones that approximated those established for BellSouth. However, staff would note that this Commission chose to arrive at three zones for BellSouth by collapsing six bands that had been arrived at by applying Sprint's banding methodology. In contrast, application of the Sprint banding methodology to Sprint's cost data yields nine bands. While the ratios of BellSouth's and Sprint's lowest and highest loop costs may be similar, staff believes that the difference in the number of zones (before collapsing) strongly suggests meaningful differences in the geographic distribution of costs between these two companies. As such, staff would offer that excessive collapsing of bands may unduly mask cost differences.

An advantage of Alternative 1 is that it acknowledges the existence of a key difference and distribution in costs by "unpacking" Sprint's proposed Band 2 into two discrete bands. A disadvantage is that this option may not lead to the lowest rate for Band 1, a deficiency that Alternative 3 remedies. However, to arrive at a low Band 1 rate results in a somewhat balkanized zone consisting of only 4 out of Sprint's 133 wire centers and a little over 100,000 lines. Alternative 2 has the lowest rate in the last zone, but not in the initial zone; Alternative 4 solves this aspect but has the same flaw as does Alternative 3.

balance staff recommends that the Commission adopt On Alternative 1's four zones. We believe it most appropriately reflects the distribution and variation of Sprint's underlying loop while minimizing any administrative burden due costs, to maintaining numerous rate zones. Staff notes that our discussion of various deaveraging options relied on Sprint's loop costs. Since staff's recommended loop costs differ from Sprint's, the application of the Sprint +/- 20% banding technique and subsequent collapsing of zones will result in a slightly different assignment of specific wire centers (shown in Appendix B) to bands than those that would be derived from Sprint's Exhibit MRH-3. Accordingly, we recommend the Commission adopt Alternative 1's approach, applied to the Commission-ordered loop costs.

Finally, staff notes that FDN complains in its brief that Sprint has based its assignment of all types of loops to rate zones, based on its deaveraging analysis for 2-wire loops, rather than performing distinct analyses for each loop type and loop combination. Staff observes that there is no testimony in this proceeding as to whether or not separate deaveraging analyses should be conducted, for each UNE that is to be deaveraged. Sprint's approach is consistent with that applied in the BellSouth phase of this proceeding; absent any testimony on this matter to support an alternative conclusion, staff believes that application of the 2-wire deaveraging results to other UNEs to be deaveraged is appropriate.

#### CONCLUSION

Staff recommends that Alternative 1, the four zone deaveraging proposal discussed in staff's analysis, modified as necessary to acknowledge use of Commission-ordered loop costs, be adopted. Staff's recommended assignment of wire centers to rate zones is shown in Appendix B. **ISSUE 2(b)**: For which of the following UNEs should the Commission set deaveraged rates?

- (1) loops (all);
- (2) local switching;
- (3) interoffice transport (dedicated and shared);
- (4) other (including combinations).

**<u>RECOMMENDATION</u>**: Staff recommends that the recurring costs of all varieties of loops and subloops below DS3, and combinations containing such loops, should be deaveraged. (Dowds)

## POSITION OF THE PARTIES

**SPRINT**: Sprint-Florida believes that the forward-looking economic costs of a number of UNEs vary by geographic area. However, because the ALECs have expressed an interest in deaveraged rates for only loops and loop combinations, only the recurring rates for loops and related combinations should be deaveraged.

**FDN**: All loops, subloops, interoffice transport and UNE combinations containing loops, subloops and/or transport demonstrate cost differences between different geographic areas for those UNEs. The Commission should consider separate UNE deaveraging, but at a minimum should deaverage all loops, subloops, and combinations containing loops or subloops.

 $\underline{\text{KMC}}$ : KMC concurs with the position and analysis of Florida Digital Network (FDN).

## STAFF ANALYSIS:

## Parties' Arguments

Sprint Direct

Sprint witness Hunsucker testifies that the TELRIC of ". . . unbundled loops, subloops, local ports and local switching usage, common and dedicated transport, and dark fiber all vary significantly by geographic area." (TR 29) However, he notes that Sprint, consistent with what this Commission ordered in the BellSouth phase of this proceeding, proposes to deaverage the recurring rates for loops below DS3, subloops, and combinations containing such loops. (TR 29-30)

## ALECs

Although not sponsoring any testimony on this issue, in its brief FDN states that in addition to loop, subloops and combinations containing loops and subloops, the Commission should also consider deaveraging interoffice transport. (FDN BR at 5) Moreover, FDN contends that since BellSouth was required to deaverage all loops below DS3, ". . . so Sprint should be required to deaverage dark fiber loops." However, FDN admits that it would be acceptable for this Commission to require only loops, subloops, and combinations thereof to be deaveraged. (FDN BR at 6)

## <u>Analysis</u>

In Order No. PSC-01-1181-FOF-TP, issued on May 25, 2001 in Docket No. 990649-TP, the Commission ordered BellSouth to deaverage loops below DS3, subloops, and combinations of loops and subloops. (Order at 42) Sprint proposes to deaverage the same elements as previously ordered for BellSouth. While FDN agrees that Sprint should deaverage this same set of elements, it also contends that dark fiber should also be deaveraged. Staff notes that BellSouth was not required to deaverage dark fiber, and no reason has been offered as to why Sprint should be singled out to deaverage dark fiber. As such, staff does not recommend that Sprint be ordered to deaverage dark fiber.

### CONCLUSION

Staff recommends that the recurring costs of all varieties of loops and subloops below DS3, and combinations containing such loops, should be deaveraged.

lssue 3(a)&(b)

## **ISSUE 3(a)**: What are xDSL capable loops?

**ISSUE 3(b)**: Should a cost study for xDSL-capable loops make distinctions based on loop length and/or the particular DSL technology to be deployed?

**RECOMMENDATION**: For the purposes of this proceeding, xDSL-capable loops are all copper loops that do not contain any impediments such as repeaters, load coils, or excessive bridged tap. Moreover, while it may be reasonable for loop prices to vary by loop length, it is not necessary that a cost study for copper-based xDSL-capable loops make distinctions based on loop length or the particular DSL technology an ALEC intends to put on the loop. **(P. Lee)** 

## POSITION OF THE PARTIES

## SPRINT:

<u>Issue 3(a)</u>: As a general and practical matter, at this time xDSL-capable loops are copper loops that are generally 18,000 feet in length or shorter and do not contain any DSL inhibiting devices. As network technology evolves, this definition of an xDSL loop will also evolve to reflect these technology and provisioning changes.

<u>Issue 3(b)</u>: No.

**FDN**: xDSL-capable loops are loops that are capable of providing xDSL services over both copper, fiber and mixed copper/fiber facilities without any modification. FDN's position is that a cost study should not make any distinction based on loop length and/or the particular DSL technology to be deployed.

**<u>KMC</u>**: KMC concurs with the position and analysis of Florida Digital Network (FDN).

**<u>STAFF ANALYSIS</u>**: The following discussion and staff analysis addresses Issues 3(a) and 3(b).

## PARTIES' ARGUMENTS

Sprint witness Dickerson testifies:

As a general and practical matter, xDSL capable loops are copper loops that are 18,000 feet in length or shorter.

To be xDSL capable, a loop must not contain any devices that impede the xDSL frequency signaling such as repeaters, load coils or excess bridged tap. Copper loops which contain any of these three will require loop conditioning to remove the repeaters, load coils or excess bridged tap. (TR 67)

Additionally, witness Dickerson notes that some fiber-fed Next Generation Digital Loop Carrier (NGDLC) vendors have recently developed plug-in cards, which can be used at the NGDLC location to provide xDSL service to customers served by the NGDLC. (TR 68) Witness Dickerson stated that Sprint-Florida might have deployed such plug-in cards in a test environment only. (EXH 14, p. 48) Witness Dickerson asserts that neither the FCC nor the Florida Public Service Commission has designated these plug-in cards as subject to Unbundled Network Element (UNE) unbundling. Therefore, the current practical result is that unbundled xDSL-capable loops are copper or copper distribution loop sub-elements. (TR 68; EXH 10, p. 329; EXH 14, pp. 48-49)

In the event competitive local exchange carriers (CLEC) request xDSL capable loops in excess of 18,000 feet in length, witness Dickerson asserts that Sprint will provide any available copper loop in excess of 18,000 feet. Furthermore, Sprint will perform any loop conditioning requested by the ALEC at an additional charge. Notwithstanding this, since loops in excess of 18,000 feet are beyond the generally accepted industry standard limit for xDSL, witness Dickerson asserts that Sprint will accept no responsibility for the xDSL capabilities of conditioned copper loops longer than 18,000 feet. (TR 68)

Regarding the issue of whether a cost study for xDSL-capable loops should make distinctions based on loop length or the particular DSL technology to be deployed, witness Dickerson testifies that copper loops 18,000 feet and shorter containing no repeaters, load coils or excess bridged tap require no further cost study distinctions. The witness states that logical distinctions are made in non-recurring rates for loop conditioning depending on the length of the loop. (TR 69) However, witness Dickerson opines that Sprint's recurring charges require no distinction in the underlying loop cost other than for standard issues of loop length, terrain, customer density, plant mix, etc., that are already reflected in Sprint's unbundled loop cost studies. (TR 69) Witness Dickerson explains that the costs for 2-wire and 4wire xDSL-capable loops are the same as the costs of 2-wire voice grade loops and 4-wire analog loops. (TR 88-89) The witness notes that the forward-looking network design used within Sprint's loop cost model (SLCM) to develop the 2-wire voice grade loop is also capable of supporting xDSL service for those loops served on copper. This is because the forward-looking network design is free from any load coils, repeaters, or excess bridged taps that would otherwise inhibit xDSL technology on the copper loops. (TR 88-89) However, Sprint's witness Davis notes that the FCC has allowed ILECs to charge for the conditioning of copper loops in the embedded network to enable their use for xDSL technology. (TR 201-202)

Sprint states that no attempt was made to model a mixed fiber/copper xDSL-capable facility. This decision was made because the technology to provide an xDSL-capable loop through a Digital Line Carrier is only in a test environment. (EXH 14, p. 48) In the event a CLEC requests that xDSL be provisioned over a loop with fiber-fed NGDLC, Sprint notes that the CLEC can collocate its Digital Subscriber Line Access Multiplexer (DSLAM) at the remote terminal and purchase subloop elements. (EXH 14, pp. 17, 48-49)

Witness Davis asserts that xDSL services are compromised with the presence of load coils, repeaters, and bridged tap. (TR 202-203) Load coils will block the transmission of DSL-based services for both copper-fed and NGDLC-provisioned xDSL-capable loops. (TR 203) For this reason, witness Davis notes that forward-looking networks are designed with loops short enough to avoid the need for load coils. (TR 203)

Witness Davis explains that repeaters are found in outside plant and are generally used to amplify a signal over a copper loop. While repeaters are installed to support digital services such as T1 and ISDN, witness Davis notes that they will interfere with xDSL signals. (TR 204)

Regarding the impact of bridged tap on xDSL services, witness Davis explains that bridged tap degrades the quality of any type of signal and is magnified when xDSL is placed on a loop. (TR 205) Specifically,

For voice transmission on a non-loaded Revised Resistance Design (RDD) cable pair, Bridged Tap cannot exceed 6,000

feet. Sprint utilizes industry standard Carrier Serving Area (CSA) guidelines which limits total bridged tap to 2,500 feet, with no single bridged tap exceeding 2,000 feet for DSL capable loops. (TR 205)

FDN asserts in its post-hearing brief that xDSL-capable loops are loops that are capable of providing xDSL services over both copper, fiber and mixed copper/fiber facilities without any modification. Furthermore, FDN agrees with Sprint that a cost study need not make any distinction based on loop length or the particular DSL technology to be deployed. (FDN BR at 6) KMC agrees with FDN's position. (KMC BR at 6-7) Neither of these parties filed testimony regarding xDSL-capable loops.

## CONCLUSION

In summary, an xDSL-capable loop, for the purposes of this proceeding, is a basic copper 2-wire or 4-wire UNE loop possessing the characteristics that allow for transmission of xDSL-based technology signals. While FDN opines that xDSL-capable loops include the provisioning of xDSL over mixed copper and fiber facilities without any modification, this technology is only in the testing stage. Furthermore, while it may not be unreasonable for loop prices to vary by loop length, staff believes it is not necessary that a cost study for copper-based xDSL-capable loops make distinctions based on loop length or the particular DSL technology an ALEC intends to put on the loop.

lssue 4(a)

**ISSUE 4(a)**: Which subloop elements, if any, should be unbundled in this proceeding, and how should prices be set?

**RECOMMENDATION:** Staff recommends that Sprint-Florida, Inc. (Sprint) unbundle feeder and distribution subloop elements. Sprint should also provide any other technically feasible subloop elements requested by ALECs on an individual case basis. (Cater)

### POSITION OF THE PARTIES

**SPRINT**: Sprint-Florida has developed costs and is proposing rates for feeder and distribution subloop elements because, if there is any demand, it will be for these elements. These rates do not include the costs of interconnecting these subelements to the ALEC's network.

**FDN**: Per the discussion in Issue 2, subloop rates should be geographically deaveraged. Sprint should be required to provide the same subloop elements that the Commission required BellSouth to provide in Docket No. 990649A-TP.

**<u>KMC</u>**: KMC concurs with the position and analysis of Florida Digital Network (FDN).

### STAFF ANALYSIS:

# THE FEDERAL COMMUNICATIONS COMMISSION'S POSITION ON SUBLOOP ELEMENTS

The Federal Communications Commission (FCC) defines subloops ". . .as portions of the loop that can be accessed at terminals in the incumbent's outside plant." (FCC 99-238<sup>1</sup>,  $\P206$ ) The FCC also believes ". . .that a broad definition of the subloop that allows requesting carriers maximum flexibility to interconnect their own facilities at these points where technically feasible will best promote the goals of the Act." ( $\P$  207) The FCC concludes that ". . .access to the subloop, will facilitate rapid development of competition, encourage facilities-based competition, and promote the deployment of advanced services." ( $\P$  207)

<sup>&</sup>lt;sup>1</sup>In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, (November 5, 1999).

## SPRINT'S POSITION ON SUBLOOP ELEMENTS

In his direct testimony, Sprint witness Hunsucker explained how the FCC defines the subloop UNE:

"'. . . as any portion of the loop that is technically feasible to access at terminals in the incumbent LEC's outside plant, including inside wire. An accessible terminal is any point on the loop where technicians can access the wire or fiber within the cable without removing a splice case to reach the wire or fiber within. Such points may include, but are not limited to, the pole or pedestal, the network interface device, the minimum point of entry, the single point of interconnection, the main distribution frame, the remote terminal, and the feeder/distribution interface.'"<sup>2</sup> (TR 30-31)

Sprint Witness Hunsucker discusses that due to the fact that subloop elements have been recently defined, Sprint does not know what the demand for various subloops will be. He states that the lack of this knowledge makes it extremely difficult to price subloops. Sprint has developed costs and proposed rates for feeder and distribution subloops since that it is where it believes the demand for subloops will be. Witness Hunsucker asserts that if an ALEC requests a subloop element for which a rate has not been developed, Sprint will price the element on an individual case basis, using the TELRIC methodology. (TR 31)

Sprint is not proposing rates for intra-building house and riser subloops. (EXH 1, Revised MRH Exhibit 1, pp. 6-7)

In deposition, Sprint witness Hunsucker was asked what subloops Sprint would be willing to offer other than two- and fourwire feeder and distribution subloops. He responded that "Sprint would be prepared to offer any subloop that would be technically feasible, and it would be subject only to technical feasibility." (EXH 15, p. 10) As far as costing of these additional elements, witness Hunsucker responded that "[w]e [Sprint] would do it on an individual case basis by looking at exactly what the CLEC was requesting and determining what the appropriate cost components are

 $<sup>^{2}</sup>$ Witness citing to 47 CFR §51.319(a)(2).

in developing a TELRIC price for that consistent with the way we did for feeder and distribution." (EXH 15, pp. 10-11)

With individual case basis pricing, witness Hunsucker stated that the prices will be filed with this Commission to the extent that they are required to be included in interconnection agreements. (EXH 15, p. 12) He observes that ALECs will also be able to negotiate these rates and any dispute over these rates could come before this Commission in an arbitration proceeding. (EXH 15, p. 15)

### ASSUMPTIONS IN THE COST MODEL

According to Sprint's cost model documentation, the assumptions used in the local loop study are also applicable to the subloop study. These costs were developed from the sum of the investment for feeder, distribution, and serving area interfaces (SAI) for a 2-wire voice grade loop. Since it is the interface between feeder and distribution plant, the SAI is included in both the feeder and distribution subloop elements. Included in the cost of subloop feeder are the DLC systems and SAI, while the costs for distribution subloops include the costs for the SAI and the distribution facilities. The annual charge factor used in the model is applied to the subloop feeder to determine the cost for these elements. (EXH 2, Loop Module, p. 39)

## FDN/KMC POSITION

In its brief, FDN asserts (and KMC concurs) that the rates for subloops should be geographically deaveraged and that Sprint should be required to provide the same subloop elements that BellSouth was required to offer in Docket No. 990649-TP. (FDN BR at 7) There is no testimony in the record to support this position. In Order No. PSC-01-1181-FOF-TP, the Commission required BellSouth to provide subloop feeder (USL-F), subloop distribution (USL-D), network interface device (NID), intra-building network cable (INC), network terminating wire (NTW), and unbundled subloop concentration (USLC). (Order No. PSC-01-1181-FOF-TP at pp. 77-78).

While FDN does take the position that rates for subloop elements should be deaveraged, staff notes that Sprint's proposed subloop rates are geographically deaveraged into three proposed rates bands. (EXH 1, Revised MRH Exhibit 1, pp. 6-7). In an inquiry about Sprint's ability to provide network interface devices, intra-building network cable, network terminating wire, and unbundled subloop concentration as required for BellSouth, witness Hunsucker did not respond directly to the question, but did state that he believes that due to lack of information as to what the ALEC is requesting, Sprint would have difficulty proposing rates for these subloops required of BellSouth. (EXH 15, pp. 14-15)

In an interrogatory response, Sprint states that it is not possible to use similar ordering, provisioning, and recurring costs of other wholesale offerings as surrogates to determine the prices of other subloop elements. Sprint also stated that such an approach would not result in an accurate or meaningful estimate of forward-looking cost. Sprint continues by saying that "[t]here are no meaningful comparative matches of wholesale offerings for drops, drop terminals, serving area interfaces, NGDLCs, etc., to serve as surrogates for UNE sub-loop<sup>3</sup> pricing." (EXH 10, p. 143)

When requested to estimate how much experience with subloops and subloop interconnections Sprint would need to have before developing generic rates for subloops, witness Hunsucker responded that it was a difficult question to answer due to a lack of experience providing specific configurations of subloop elements. He points out that Sprint would have an incentive to develop generic rates for specific configurations based on the number of requests it receives, but will continue to provide subloops on an individual case basis (ICB) until there are enough requests to develop generic prices. (EXH 15, pp. 13-14).

## CONCLUSION

As indicated in the record, Sprint has yet to receive any requests for subloop elements in Florida. (TR 31; EXH 10, p. 101) Sprint has proposed deaveraged rates for subloops in rate zones, for the subloop elements it believes will most likely be requested. For any other subloops, Sprint proposes pricing them on an individual case basis until there has been enough demand for the company to price these elements generically. Staff believes that as recommended in Issue 4(b), any disputes over individual case basis subloop rates should be settled by this Commission in an

<sup>&</sup>lt;sup>3</sup>In this recommendation subloop and sub-loop are used interchangeably.

arbitration proceeding. Once there has been sufficient demand on an individual case basis for a particular subloop, Sprint should be required to determine the TELRIC-based rate for that particular subloop, and file the rate and cost support with this Commission for review. Due to the fact that subloop elements have been recently defined and Sprint lacks experience in providing access to subloop elements, TELRIC-compliant ICB pricing is reasonable for subloop elements other than Sprint's proposed feeder and distribution subloops.

In conclusion, staff recommends that Sprint unbundle the feeder and distribution subloop elements. Sprint should also provide any other technically-feasible subloop elements requested by ALECs on an individual case basis.

issue 4(b)

**ISSUE 4(b)**: How should access to such subloop elements be provided, and how should prices be set?

**RECOMMENDATION:** Staff recommends that Sprint should be required to provide access to subloop elements at any technically feasible point. Due to the fact that Sprint does not have any experience in providing access to subloops, and does not propose any rates for access to subloop elements, prices for access to subloop elements should be on an individual case basis. Staff also recommends that these prices be TELRIC based and be filed with this Commission in the appropriate interconnection agreements or amendments to such agreements. (Cater)

## POSITION OF THE PARTIES

**SPRINT**: It is not feasible at this time for Sprint-Florida to develop a generic forward-looking cost for subloop interconnection. Until such time as meaningful demand for subloop interconnection, Sprint-Florida proposes to price this interconnection on an individual case basis.

**FDN**: Per the discussion in Issue 2, subloop rates should be geographically deaveraged. Sprint should be required to provide the same subloop elements that the Commission required BellSouth to provide in Docket No. 990649A-TP.

**<u>KMC</u>**: KMC concurs with the position and analysis of Florida Digital Network (FDN).

## STAFF ANALYSIS:

# THE FEDERAL COMMUNICATIONS COMMISSION'S POSITION ON ACCESS TO SUBLOOP ELEMENTS

Concerning access to subloops, the FCC, in Order No. FCC 99-  $238^4$  states that:

We conclude that incumbent LECs [Local Exchange Companies] must provide unbundled access to subloops. Applying our unbundling analysis, we conclude that lack

<sup>&</sup>lt;sup>4</sup>In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, (November 5, 1999).

of access to unbundled subloops at technically feasible points throughout the incumbent's loop plant will impair a competitor's ability to provide services that it seeks to offer. We agree with commenters that selfprovisioning subloop elements, like the loop itself, would materially raise entry costs, delay broad-based entry, and limit the scope and quality of the competitive LECs service offerings. In addition, we find that access to the subloop elements promotes self-provisioning of part of the loop, and thus will encourage competitors, over time, to deploy their own loop facilities and eventually to develop competitive loops where it is cost efficient to do so. ( $\P$  209)

The FCC defines an "accessible terminal" as:

. . .a point on the loop where technicians can access the wire or fiber within the cable without removing a splice case to reach the wire or fiber within. These would include a technically feasible point near the customer premises, such as the pole or pedestal, the NID or the minimum point of entry to the customer premises (MOE). Another point of access would be the feeder distribution interface (FDN), which is where the trunk line, or "feeder" leading back to the central office, and the "distribution" plant, branching out to the subscribers, meet, and "interface." A third point of access is, of course, the main distribution frame in the incumbent's central office. (FCC 99-238,  $\P$  206)

We believe that a broad definition of the subloop that allows requesting carriers maximum flexibility to interconnect their own facilities at these points where technically feasible will best promote the goals of the Act. ( $\P$  207)

In regards to the presumption of the accessability of subloop elements, the FCC Order states:

. . .[W]e establish a rebuttal presumption that the subloop can be unbundled at any accessible terminal in the outside loop plant. If the parties are unable to reach an agreement pursuant to voluntary negotiations about the availability of space or the technical

feasibility of unbundling the subloop at one of the points identified above, the incumbent will have the burden of demonstrating to the state, in the context of a section 252 arbitration proceeding, that there is no space available or that it is not technically feasible to unbundle the subloop at these points. (FCC 99-238,  $\P$  223)

# SPRINT'S POSITION ON ACCESS TO SUBLOOP ELEMENTS

In his direct testimony, Sprint witness Dickerson discusses the fact that industry standards for subloop unbundling are still being developed. He states that Sprint's lack of experience with subloop unbundling makes it difficult for Sprint to establish forward looking costs in interconnection agreements. He goes on to say that these costs should be on an individual case basis until industry standards are developed. (TR 93)

In a staff interrogatory, Sprint was asked why it is impossible to predict the forward-looking costs of establishing ALEC interconnection to the subloop elements with any certainty. Sprint responded that various network, technical, and site specific issues would affect the cost of providing access to various subloop elements. (EXH 10, p. 142) Sprint witness Hunsucker believes that once the industry develops standards and practices, and Sprint gains experience providing subloop interconnection, it would become feasible for Sprint to develop rates for subloop interconnection. (TR 32)

In responses to various interrogatories concerning this issue, Sprint responded that "Sprint-LTD has not received any orders from CLECs for access to sub-loop elements and has, therefore, not provided CLECs access to sub-loop elements." (EXH 10, pp. 101-104)

In response to an interrogatory regarding technical feasibility for the provisioning of sub-loops at various points, Sprint replied that it is technically feasible to access subloop elements at the following points:

- Pole or Pedestal
- Network Interface Device
- Minimum Point of Entry
- Single Point of Interconnection
- Main Distribution Frame

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- Remote Terminal
- Feeder/Distribution Interface (EXH 10 pp. 105-106)

### FDN/KMC POSITION

FDN appears to be silent concerning how access to subloop elements should be provided. (FDN BR at 7)

### CONCLUSION

The FCC makes it clear that access to subloops must be provided anywhere it is technically feasible. The FCC puts the burden of proof on the incumbent carrier to demonstrate that access to a subloop at a specific point is not technically feasible, and any disputes are to be handled by the states in a section 252 arbitration proceeding. Sprint points out that due to the newness of the subloop elements and its lack of experience in provisioning these elements, it would like to provide access to subloops on an individual case basis. Staff agrees that this is acceptable with the understanding that the Commission will resolve any disputes over rates and technical feasibility.

Staff recommends that Sprint should be required to provide access to subloop elements at any technically feasible point. Due to the fact that Sprint does not have any experience in providing access to subloops, and does not propose any rates for access to subloop elements, prices for access to subloop elements should be on an individual case basis. Staff also recommends that these prices be TELRIC based and be filed with this Commission in the appropriate interconnection agreements or amendments to such agreements.

lssue 5

**ISSUE 5**: For which signaling networks and call-related databases should rates be set?

**<u>RECOMMENDATION</u>**: The parties agree with Sprint's position on this issue. Therefore, staff recommends that rates should be set for the call-related database items proposed by Sprint. (Marsh)

### POSITION OF THE PARTIES

**<u>SPRINT</u>**: Sprint-Florida proposes UNE rates for the following call-related database items:

- 911/E911
- STP Ports and STP Switching (SS7 Interconnection)
- Database Query Services

FDN: Stipulate to Sprint position.

KMC: Stipulated to Sprint position.

### STAFF ANALYSIS:

Sprint proposed that UNE rates be set for the following database items:

- 911/E911
- STP Ports and STP Switching (SS7 Interconnection)
- Database Query Services. (Hunsucker TR 33; Fuller TR 223)

Sprint witness Fuller states that "[i]n the State of Florida, Sprint's arrangement with the local Public Safety Answering Point (PSAP) recovers all recurring costs of [911/E911] outside of any transport required by the ALEC to connect its switch with Sprint's 911 tandem." (TR 224)

Witness Fuller also describes Signaling System Seven (SS7) interconnection. He explains that "SS7 interconnection consists of Signal Transfer Point (STP) ports, interconnecting facilities, and STP switch usage." (TR 224) He notes that the service provides a signaling path for SS7 between a customer designated point of

signaling premises and a Sprint STP that is used to transmit and receive information related to call completion. (TR 224)

Witness Fuller lists the following database query services that Sprint proposes to provide:

- Local Number Portability (LNP)
- Line Information Database (LIDB)
- Calling Name (CNAM)
- Toll Free Code (TFC) 800/888/877 (TR 226)

FDN and KMC both stated in their briefs that they stipulated to Sprint's position. (FDN BR at 7; KMC BR at 7) Neither company addressed the issue further and no party besides Sprint provided any testimony on this issue.

## CONCLUSION

Staff notes that this issue addresses only which services should be provided, not the specific rates. The parties agree with Sprint's position on this issue. Therefore, staff recommends that rates should be set for the call-related database items proposed by Sprint.

**ISSUE 6**: Under what circumstances, if any, is it appropriate to recover non-recurring costs through recurring rates?

**RECOMMENDATION:** Staff recommends that the inclusion of nonrecurring costs in recurring rates should be considered where the resulting level of nonrecurring charges would constitute a barrier to entry. (J-E Brown)

#### POSITION OF THE PARTIES

**SPRINT**: To the extent that high, non-recurring charges are a significant barrier to competitive entry, it may be appropriate to require some portion of non-recurring charges be recovered through recurring rates. However, absent such circumstances, non-recurring costs should be recovered through non-recurring rates.

**FDN**: Stipulate to Sprint position.

KMC: Stipulate to Sprint position.

**<u>Z-TEL</u>**: No position.

**STAFF ANALYSIS**: This issue addresses under what circumstances it is appropriate to recover non-recurring costs through recurring rates.

#### Arguments

Staff notes that there appears to be agreement among the parties on this issue, as all parties have agreed to Sprint's position. Since neither of the opposing parties submitted testimony on this issue, staff will make its recommendation based on the limited testimony Sprint provided in the record and the position Sprint filed in its post-hearing brief. Sprint witness Hunsucker believes that to the extent that high non-recurring charges are a significant barrier to competitive entry, it may be appropriate to require at least a portion of those non-recurring costs to be recovered through recurring rates. (TR 34) However, witness Hunsucker believes this practice should be the exception rather than the rule:

Absent such compelling circumstances, Sprint belies that non-recurring costs should be recovered through nonrecurring rates. Requiring non-recurring cost to be recovered through recurring charges raises a number of difficult policy and administrative issues. On the one hand, the incumbent LEC would be financially exposed if the CLEC discontinues service before the non-recurring cost are fully recovered. On the other hand, the incumbent LEC could over-recover its non-recurring cost unless it tracked each service installation and reduced its recurring rate at the point where the non-recurring costs built into that recurring rate were fully recovered. (TR 34)

## Analysis

By definition non-recurring costs are the efficient, one-time costs associated with establishing, disconnecting or rearranging unbundled network elements purchased from an ILEC at the request of a customer (e.g., ALEC). The FCC rules allow state commissions to require recovery of non-recurring costs over time in recurring rates:

State commissions may, where reasonable, require incumbent LECs to recover nonrecurring costs through recurring charges over a reasonable period of time. Nonrecurring charges shall be allocated efficiently among requesting telecommunications carriers, and shall not permit an incumbent LEC to recover more than the total forward-looking economic cost of providing the applicable element. (47 CFR, 51.507(e))

Similarly, the FCC's Local Competition Order allows states to require an incumbent LEC to recover one-time costs as a recurring charge over a reasonable period of time in lieu of a nonrecurring charge. This arrangement would decrease the size of the entrant's initial capital outlay, thereby reducing financial barriers to entry. At the same time, any such reasonable arrangement would ensure that incumbent LECs are fully compensated for their nonrecurring costs. (FCC 96-325, ¶749)

The FCC's Local Competition Order observes that extremely high up-front costs may be a barrier that may be mitigated through payments over time. Acknowledging this possibility, the FCC allows a state commission "...to permit incumbent LECs to charge initial entrants a proportionate fraction of the costs incurred, based on a reasonable estimate of the total demand by entrants for the particular interconnection service or unbundled rate elements."

(FCC 96-325, ¶750) To alleviate Sprint witness Hunsucker's concerns regarding over-or under-recovering of non-recurring cost, Staff believes this issue may be dealt with in one of two ways: 1) through the use of a term payment or installment plan; or 2) by including the cost in recurring UNE charges. Whether the magnitude of a given non-recurring charge erects a barrier to entry presumably can only be determined on a case-by-case basis. The issue of the term over which payments for non-recurring charges should be made may be best left to negotiations between the parties, so that they may select a payment plan that best fits individual needs.

### CONCLUSION

Staff recommends that the inclusion of non-recurring costs in recurring rates should be considered where the resulting level of nonrecurring charges would constitute a barrier to entry.

Issue 7(a)

**ISSUE 7(a)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(a) network design (including customer location assumptions);

**RECOMMENDATION:** Staff recommends that the network design reflected in the SLCM be accepted for purposes of establishing recurring UNE rates in this proceeding, subject to staff's adjustments in other issues. (Dowds)

### POSITION OF THE PARTIES

**SPRINT**: The network design is based on existing wire center locations, as directed in the FCC Order, and reflects currently available technology, which is appropriate and efficient for current and reasonably foreseeable demand levels.

**FDN**: The SLCM utilizes a grid approach that does not reflect the most cost-effective method of distributing customers into serving areas. The Commission should require Sprint to use a clustering methodology to determine serving areas. Sprint should model its rates for stand-alone unbundled loops on use of IDLC.

**<u>KMC</u>**: KMC concurs with the position and analysis of Florida Digital Network (FDN).

## STAFF ANALYSIS:

## Parties' Arguments

## Sprint Direct

The Loop Worksheet of Sprint TELRIC UNE Model Input Module is populated, in part ". . . with wire center-specific line counts and investments from the Sprint Loop Cost Model for all the loop types modeled (2-wire Voice Grade, 4-wire Voice Grade, DSO, DS1, ISDN-BRI, ISDN-PRI, Sub Loops, and dark Fiber)." (EXH 2, Sprint TELRIC UNE Model Input Module Overview, pp.2-3) As discussed in other issues, numerous values are input into the Sprint Loop Cost Model (SLCM) to yield loop investments; the investments input into the Loop Worksheet are subsequently used in other modules of Sprint's TELRIC UNE Model to derive TELRIC costs for specific loop types. (EXH 2, TELRIC Model Overview - Methods, p.32)

The Sprint Loop Cost Model (SLCM) designs a voice grade network that uses forward-looking technologies that can be currently deployed. The resulting network is capable of providing voice grade and advanced services over copper or fiber-based Next Generation Digital Loop Carriers (NGDLCs). SLCM's network allows for the provisioning of a range of services, including voice grade, ISDN, data services, digital subscriber line, and at bandwidths of DS-1 and DS-3, and higher. (EXH 2, Sprint Loop Cost Model, Model Methodology, p. 7)

SLCM's outside plant is designed so as generally to limit copper loop lengths, both feeder and distribution, to 12,000 feet (12 Kft), which eliminates potential performance-related issues. The model deploys a mixture of 26 and 24 gauge copper cables in the distribution plant, taking into account the industry standard Carrier Serving Area (CSA) design criterion of a maximum of 12 Kft of cooper, regardless of cable gauge. Adherence to this standard allows higher bandwidth services to be provisioned with the CSA. SLCM's network also avoids bridged-tap by tapering of cables and placement of feeder distribution interfaces (FDIs). When the demand in a grid exceeds a user-specified demand level, the model uses NGDLCs instead of analog copper facilities. (Model Methodology, pp.7-8)

The SLCM consists of various modules that are used to design and cost a forward-looking telecommunications network:

- <u>Preprocessor Module</u> formats some of the raw input data for further processing, identifies the locations of customers within the wire center, and builds the grid system and feeder plant routing used to design the loop. . . .
- <u>Outside Plant Module</u> designs and costs the loop plant and interoffice fibers that follow loop main feeder routes. . . (Model Methodology, p. 8)

The SLCM was derived from an earlier cost proxy model, the BCPM 3.1. Inputs used in the Sprint model are generally Sprint Floridaspecific. New input tables were provided for ". . .services by wire center, interoffice working fiber quantities by route, DS3 deployment configurations, NGDLC costs, and DS3 quantities by

grid." Toggles allow the user to turn off interoffice fiber placement and non-NGDLC electronics. Sprint's documentation indicates that "[t]he balance of the inputs and input tables remain consistent with the model's BCPM 3.1 predecessor." (Model Methodology, pp. 8-9)

Customer Location Methodology

Fundamentally, the SLCM overlays grids on wire center serving areas, clusters grids into serving areas, and designs an outside plant network sufficient to serve these serving areas. In addition to using line location formula, the model also specifically identifies its non-NGDLC based broadband services. "Sprint has used its actual DS3 demand and geo-coded the addresses in order to make the broadband fiber demand added to the plant consistent with its actual plant load." SLCM has an input table for lines of various types; the user can specify the number of DS3s to be modeled, at the wire center level. Non-voice grade services provisioned via NGDLC are input at the wire center level and are allocated to individual grids based on the number of multi-line business lines in the grids. (Model Methodology, pp. 9-10)

Like BCPM 3.1, SLCM uses census data at the census block (CB) level; while CBs vary in size, they typically reflect a standardized number of housing units. Accordingly, depending upon the density in a given CB, they can be quite small or quite large. The microgrid that SLCM overlays on CBs is roughly 1500 by 1700 feet; thus, in urban areas grids are often smaller than a CB, and several CBs will be assigned to a single grid. (Model Methodology, pp. 10-11)

The SLCM acknowledges that telephone engineers construct outside plant based on Carrier Serving Areas (CSAs) and Distribution Areas (DAs), not on a customer by customer basis. Given these two design concepts (defined later), engineers try to capture clustering of customers ". . .when implementing standard engineering practices that try to maximize the efficient use of plant, minimize the distribution portion of plant, and ensure adequate service quality." (Model Methodology, p. 13)

According to the SLCM documentation, these are the steps in the customer location process:

• Assign Census Block Demographic Data to Wire Centers

- Establish Microgrids Within Wire Center Boundaries
- Assign Census Block Data to Microgrids
- Aggregate Microgrids to Ultimate Grids
- Establish Distribution Quadrants (Model Methodology, p. 13)

Census block boundaries are established based on roads and natural borders, such as rivers. The CB data used by SLCM consists of household and housing unit line counts, based on 1990 census data updated using 1995 census statistics to factor in household growth by county. Business line count data by CB was obtained from PNR and Associates. First, data for CBs that fall within a wire center's boundary are assigned to the wire center. Where a CN crosses a wire center's border, the CB's housing and business data are allocated to the wire centers. If the census block is less than 1/4 of a square mile, the data is allocated to the wire centers based on proportion of the CB's area in each wire center. If the census block is greater than 1/4 of a square mile, the housing and business line data is allocated based on the road mileage of the CB in each wire center. (Model Methodology, pp. 13-14)

A "microgrid" is defined as an area that is 1/200th of a degree of longitude and latitude. As noted above, while the exact dimensions of a microgrid will vary due to the earth's curvature, it typically will be about 1500 by 1700 feet. A wire center's serving area will be partitioned into microgrids, with no microgrid extending over the wire center's border. Accordingly, unless a census block is falls within a single microgrid, all census blocks within the wire center serving area are overlaid with microgrids. (Model Methodology, p.14)

When a census block is larger than its associated microgrids, the next step is to allocate the CB's household and business line data to microgrids. If the CB is less than 1/4 of a square mile, the data is allocated based on the ratio of a given microgrid's area to the census block's total area. If the CB is greater than 1/4 of a square mile, the line dat is apportioned based on road mileage.

That is to say, the lien data is apportioned based on the road length contained within a microgrid that traverses that CB, relative to the total road length contained within that CB. Since roads are sued to locate

customers, certain roads where customers are unlikely to reside, have been excluded from the road data. То illustrate the apportionment of household and business line data to microgrids based on relative road lengths, assume that the total road length associated with a particular CB is 60 miles and that 20 of those miles traverse a particular microgrid. Since (20 miles/60 miles) = .333, 1/3 of the household and business line data is associated with that particular microgrid. At the end of phase one of the grid process, the total census housing unit and PNR business line data associated with a wire center have been apportioned to each of the microgrids comprising that serving wire center. (Model Methodology, pp. 14-15)

The census housing unit and PNR business line data is trued up to Sprint Florida's actual line counts. (Model Methodology, p. 14)

The next step is the aggregation of microgrids into larger grids, in order to simulate the creation of a serving area comparable to a carrier serving area (CSA). A CSA ". . .encompasses the entire design area potentially served from a particular digital loop carrier (DLC) site, including the feeder distribution interface, vertical and horizontal connecting cables, backbone cable and branch cable." (Model Methodology, p. 13) The maximum size of these larger grids is a function of the housing and business line data and technological limitations. Generallv speaking, the largest ultimate size grid allowed by SLCM is 1/25th of a degree longitude and latitude, or about 12 Kft by 14 Kft; such grids are referred to as macrogrids. In most cases, a macrogrid restricts the maximum copper distribution cable length, form the customer to the DLC, to 12 Kft. In a few cases the 12 Kft limit may be exceeded; where this occurs, SLCM uses 24 gauge cable instead of 26 gauge copper cable, and extended range line cards. (Model Methodology, pp. 15-16)

SLCM overlays macrogrids, consisting of 64 microgrids, on microgrids, which effectively creates fixed grid boundaries. According to the SLCM documentation, the algorithm that creates ultimate grids ". . .is actually a multistage process built to satisfy engineering constraints, minimize processing time, and simplify computer code." (Model Methodology, p. 16) The basic procedure is: The derivation of grids is essentially an iterative process where partitioning occurs if the number of lines within a grid is too large, or if other technological constraints become binding. The macrogrid is partitioned into smaller grids, if warranted, based on household and business line data associated with the underlying microgrids, and CSA guidelines. The iterative process partitions the macrogrid into four equally sized subgrids. In some instances, these subgrids, which are 1/50th of a degree latitude and longitude in size, become the ultimate size for that composite of microgrids. In other instances, the number of lines within a subgrid is In those instances, additional substill too large. partitioning occurs for the subgrids. Additional subpartitioning continues to occur until all grids satisfy line size and technological constraints. The smallest grid allowed is the 1/200th of a degree latitude and longitude, the microgrid. The resulting ultimate grids have a composite household and business line count equal to the sum of the household and business lines for the associated underlying microgrids. (Model Methodology, pp. 16 - 17)

Under certain circumstances the above partitioning process may yield small, isolated groups of microgrids within a macrogrid, that have fewer than 100 lines. In such a situation it is not appropriate to place a CSA within these groups. "Instead, these small groups of microgrids are aggregated with ultimate grids within the macrogrid in which they reside, that are equal to larger in size, and are located closest to the road centroid of each small group of microgrids." Similarly, a partial grid may be created where a microgrid intersects a wire center boundary and it is not within a macrogrid. For partial grids that have fewer than 100 lines and are smaller than 1/5th of a macrogrid in area, which thus do not warrant a CSA, they are ". . .aggregated with the adjacent macrogrid that constitutes the longest border along that partial grid." (Model Methodology, p. 18)

The final step is segmenting each ultimate grid into four distribution quadrants; each quadrant potentially is a distribution area. The road centroid of the grid is determined, which equals the latitude and longitude of the distribution quadrants. (Model Methodology, p. 19-20) "The road centroid is calculated as the average horizontal and vertical point of all roads in the defined

area." (Model Methodology, p. 20) Next, a road centroid is computed for each of quadrants. If there no roads in a quadrant, then it is considered to be empty.

For each non-empty distribution quadrant, the total area that falls within a 500-foot buffer along each side of the roads within that distribution quadrant is calculated. The DA is modeled as a square whose size is equal to the total buffer area. The center of each distribution quadrant's square DA is placed at the road centroid of the distribution quadrant. (Model Methodology, p.20)

The Sprint documentation contends this approach is reasonable because most households and businesses reside near roads; centering the DA at the road centroid rather than the geographic centroid puts facilities close to where customers would be located. Further, this approach acknowledges that rights of way for telecommunications structures typically are near roadways. (Model Methodology, pp. 20-21)

Outside Plant Methodology

A key assumption in SLCM is that the maximum copper loop length for each CSA is less than 12,000 feet. As noted above, to achieve this standard, the maximum size of an ultimate grid is generally restricted to 1/25th of a degree latitude or longitude, or about 12 Kft. by 14 Kft. Further, the design of the ultimate grids is such that the copper loop length from the DLC site to a customer should not exceed 18,000 feet. (Model Methodology, pp. 22-23)

The design of SLCM's feeder routes is done in the preprocessing stage. Initially, a maximum of four main feeders emanate from the wire center due east, west, north and south. Each main feeder runs for 10,000 feet, on the assumption that most customers reside within the perimeter of a town which a gridded street complex. Beyond 10,000 feet, the direction of the main feeders depends on the locations of customer concentrations reflected in the microgrid data. (Model Methodology, p. 23)

If the number of lines in the center 1/3 of a quadrant is greater than 30% of quadrant's total feeder lines, the feeder will be a single feeder that may be pointed to the population centroid

of the quadrant. Where this condition is not met, the feeder splits into two main feeders, with each potentially being aimed at the population centroid in one half of the quadrant. The sizing of each of these split main feeders is based on the number of customers it serves. (Model Methodology, p. 24)

If the preprocessing logic indicates that a main feeder should be split at 10,000 feet from the central office, a calculation is performed to determine if this design yields the least cost network. The total feeder cable length assuming the feeder is redirected is compared to a design where instead the main feeder continues in a cardinal direction, with subfeeders extending at right angles to this main feeder. The program selects the option that yields the shortest total feeder cable length. (Model Methodology, p. 25)

Subfeeders extend out from the main feeder to ultimate grids. In some cases subfeeder may be shared by multiple ultimate grids. Subfeeders can branch off the main feeder every 1/200th degree of latitude and longitude within 10,000 feet of the wire center. The subfeeder extends vertically in the east and west quadrants, and horizontally in the north and south quadrants. (Model Methodology, p. 25) Beyond 10,000 feet from the wire center, the rules for subfeeder branching differ:

Along a main feeder beyond 10,000 feet of the wire center, subfeeder branches out at most, once between every 1/25th of a degree of boundary. For a split feeder that angles greater than 22 1/2 degrees from the direction of the original main feeder (away from the wire center), subfeeder emanates vertically upward or downward as appropriate, and horizontally outward away from the wire center, creating a fishbone pattern. For a split main feeder that angles less than 22 1/2 degrees from the original main feeder, subfeeder emanates outside of the subfeeder as explained above (away from the direction of the original main feeder cardinal line, i.e., due north, south, east or west) and emanates inside towards the cardinal line either horizontally for north and south directed main feeder or vertically for east and west directed main feeder. If the cardinal feeder line has extended from the 10,000 foot point, this interior subfeeder would create a right angle with the original cardinal line. (Model Methodology, pp. 25-26)

Where an ultimate grid's road centroid does not intersect a subfeeder, subfeeder 2 links the subfeeder to the road centroid. Where cable loop lengths exceed the copper/fiber breakpoint, SLCM establishes a digital loop carrier site within each CSA at the road centroid of an ultimate grid. The number of lines within the CSA drives the sizing and number of DLCs placed. Where a CSA is instead served by copper feeder facilities, a feeder/distribution interface (FDI) is placed at the road centroid of the ultimate grid, where the copper feeder is connected to the copper distribution facilities. Right and left connecting cables extend from the DLC site to the road centroid of each non-empty distribution quadrant. (Model Methodology, p. 26)

SLCM provides for modeling two sizes of DLCs, with various capacities at the remote terminal and the central office terminal. Bot large and small DLCs are assumed to be universal DLC (UDLC) for computing UNEs, but integrated DLC (IDLC) for UNE-P whose bandwidth is less than DS-1. Services at DS-1 and higher bandwidth are assumed to be provisioned with UDLC, for UNEs and UNE-P. The choice between a small and large DLC is a function of the number of lines to be served by the DLC and the engineering fill factor used. (Model Methodology, pp. 27-28)

The cabinet for a large DLC can accommodate up to 2,016 lines. The decision can arise whether to install multiple DLCs in an ultimate grid, or to further subdivide the grid.

Whether more DLCs are placed in that CSA depends on whether sound engineering practices call for another DLC or whether it is optimal to divide a grid further, into smaller ultimate grids, each representing a CSA. For example, it is possible for a single CSA to serve 5,000 customers if a large number of customers are located in a single office complex. In this case, multiple DLC cabinets/systems would be installed to provision the 5,000 lines. (Model Methodology, p. 28)

The costs associated with the NGDLC placed at a site is allocated to the services provided out of that DLC. Site cost, power, framing, and cooling are allocated between services based on space occupied. In contrast, the optical and common equipment is assigned to services based on bandwidth used. The cost of servicespecific plug-in cards are directly assigned. "In order to extend system common equipment capacity in large NGDLC systems a separate

digital data multiplexer is used for all DS1 equivalent services including DS1, ISDN-PRI, and HDSL. Voice grade POTS, ISDN-BRI, coin, and DS0 services remain in the large system channelized equipment shelves." (Model Methodology, p. 28)

SLCM has a default value of 12,000 feet as the copper/fiber breakpoint. If the maximum loop length from the wire center to any customer is less than 12 Kft., the model places copper feeder cable. Where any customer's loop length in the CSA exceeds 12 Kft., fiber feeder is placed to serve all customers. "For all loops, cable beyond the DLC site is copper except for DS3s that have fiber distribution placed parallel to the copper backbone for half of the backbone length (an average distribution distance in the quadrant)." (Model Methodology, pp. 28-29)

Copper feeder cables are based on the total number of working lines (residential, business and special access) adjusted by an engineering fill factor. The sizing of fiber feeder cables is similar, but differ by system size. Due to different transmission protocols, small and large DLC systems cannot share fiber strands. Four fibers can handle the 2,016 maximum voice grade capacity of a large DLC; an additional four fibers would be required for each additional 2,016 increment. Small system require four fibers per 672 voice grade channels; an additional four fibers would be required per additional 672 channels. Under certain circumstances fiber feeder can be shared by DLC systems:

Where an NGDLC shares a feeder with a like NGDLC system and is not at full capacity, the capacity of adjacent systems is matched so that wherever possible fibers can be shared among the NGDLC locations. Shared fibers along a route configure similar to a folded optical ring. For example, if three small systems on a single feeder all sum to less than the total backplane capacity, there will be two fibers from the office to system one, two fibers from system one to system two, two fibers from system two to system three, and two fibers from system three back to the office. In that way all three systems use a total of four fibers. (Model Methodology, p. 29)

For any given fiber feeder segment, the segment's total capacity equals the required large DLC strands plus the required small DLC strands plus DS3 strands, and interoffice strands. (Model Methodology, p. 29) DS3s are either allocated or directly assigned to grids Based on the number of DS3s in a grid, the optical system capacity, the number of systems required, and the number of fibers needed for the systems are determined via reference to a table. The table contains data on electronic fill factors and reflects Sprint's SONET architecture. (Model Methodology, pp. 29-30)

If SLCM's dark fiber toggle is on, the model will build interoffice fibers into the main feeder cables. This is accomplished in the following manner:

input table is structured to allow input of An interoffice trunk quantities along any of eight geographical directions. For example, an eastward feeder may split into two paths resulting in a feeder leg South of East and another North of East. In this wav, interoffice fiber are placed into the feeder most likely to approximate the actual route taken by the facilities. Logic in the model finds the grid at the end of the main feeder in the designated direction and adds the capacity to other fiber requirements. Since the main feeder stops within the last grid but does not extend to the boundary, a separate interoffice cable is placed from the end of the feeder to the boundary. (Model Methodology, p. 30)

As noted above, other than those ultimate grids that remain as microgrids, each ultimate grid is considered a CSA, and is divided into four possible quadrants or distribution areas (DAs). The model determines the quantities of horizontal and vertical connecting cables, and backbone and branch cables by:

For modeling purposes, a road reduced area is developed as the area encompassed by a 500 foot buffer along each side of the livable roads (e.g., excluding limited access freeways and underpasses). While the road reduced area is a simulation of reality, it is easy to conceptualize as a square centered about the road centroid of the distribution quadrant. The road reduced area is equal to the area encompassed by a 500 foot buffer along each side of the roads within the distribution quadrant. No distribution facilities are placed within a distribution quadrant that does not have any roads, i.e. a nonpopulated distribution quadrant. The location of the centroid of the road reduced area (with respect to the road centroid of the ultimate grid itself) determines the distance the horizontal and vertical connecting cables must traverse. The size of the road reduced area and the number of customers in the distribution quadrant determines the length of the backbone and branch cable. The road reduced area is not used to locate customers, but as a modeling tool to determine likely cable distances required to serve customers in the distribution quadrant. (Model Methodology, pp. 30-31)

To determine the number of feeder/distribution interfaces to place in an ultimate grid/CSA, SLCM checks the cable sizing in the grid. An FDI is placed at the road centroid (the center of road reduced area) within each populated quadrant when distribution cable size exceeds 1,200 pairs. (Model Methodology, p. 31) For ultimate grids with distribution cables equaling less than 600 pairs, SLCM calculates the cost of placing a single FDI within such ultimate grids; this amounts to collocating the FDI with the DLC. (Model Methodology, p. 32) Where this occurs, horizontal and vertical connecting cable is placed ". . . from the ultimate grid road centroid to the road centroid of a non-empty quadrant's road reduced area." (Model Methodology, pp. 32-33) For ultimate grids/CSAs with between 600 and 1,200 lines, the costs of placing two FDIs. This implicitly means that the two distribution quadrants to the right of the DLC site share one FDI, and the two distribution quadrants to the left of the DLC site share an FDI. (Model Methodology, p. 33)

Backbone and branch cable distances are computed based on the volume of the road reduced area.

While the cables might be placed in a different location, it is easy to think of a backbone cable as emanating up (north) and down (south) from the center of the road reduced area. Branch cable is placed at 90 degrees from the backbone cable to each terminal. . . The final piece of distribution cable, the drop, extends from the branch cable to middle of the customer's lot and is capped at 500 feet. Lot size within a distribution quadrant is based on the distribution quadrant's average lot size, determined by dividing the road reduced area of the distribution quadrant by the number of locations, i.e. housing units structures and business locations, within that distribution quadrant. Thus, lot size may vary across distribution quadrants within an ultimate grid. (Model Methodology, p. 34-35)

The SLCM limits the maximum length of the sum of all cable types within a distribution quadrant to the length of the road network within that quadrant. (Model Methodology, p. 35)

The SLCM contains various rules pertaining to placement of cable in distribution plant:

- Within a grid, if the length of copper from the DLC to the last lot in a quadrant is less than 11,100 feet, 26 gauge cable is used to serve all customers. On those circumstances where the distance from the DLC to the last lot is greater than 11,100 feet, 24 gauge wire is used in all cables to and within the distribution quadrant. Where distances exceed 13,600 feet, extended range line plug-ins are installed on lines that exceed 13,600 feet.
- The mix of aerial, buried and underground facilities is determined by terrain and density specific to that grid.
- Terminals
  - Exterior Drop terminals are provided at each point where drops connect to branch cables and are sized for the number of connecting drops.
  - Indoor terminals are placed on each multi-tenant building and are sized for the number of lines terminated at that location.
  - Different NIDs are used for business and residence locations. One housing is included for each living unit or business location, in addition to one protector and interface per drop pair terminated.
  - Terminal cost input tables include entries for separate components of the installation process.
  - Cables are sized using the following basic rules:
    - Branch cables are sized to the number of pairs for housing units and business locations. (The calculation takes the number of housing units times pairs per housing unit and the greater of actual business pairs per location or business locations times pairs per location.)
    - Each backbone cable is sized to carry ½ of the branch cable pairs to the FDI as well as any nonvoice grade pairs needed to connect NGDLC specialized circuits to the customer premises. An

input table is used to match the pairs required with the service.

• Cables throughout the feeder system are sized based on the actual number of pairs used from the FDI back to the switch. Sprint uses actual line volumes by populating the lines input table to determine the number of pairs. (Model Methodology, pp. 36-37; footnotes omitted)

Although the number of pairs per residential and business user is a user-adjustable unit, the model's default values are two pairs per residence and six pairs per business. If the actual number of business lines (including special access lines) exceeds the userspecified number per location, SLCM uses the actual number of business lines. (Model Methodology, p.37)

The SLCM computes the total loop length by totaling the lengths of the following outside plant components:

- •Linear distance of the feeder to the subfeeder;
- •Linear distance of the subfeeder to the subfeeder part 2;
- •Linear distance of the subfeeder part 2 to the DLC;
- •Length of the vertical cable;
- •Length of the horizontal cable;
- •Half the length of the branch cable;
- •Half the length of the backbone cable; and
- •Length of the drop cable. (Model Methodology, p.37)

A user can cap the maximum dollar amount of loop investment, either at the wire center level or at a global level. If the user, e.g., caps loop investment at \$10,000, each loop whose investment calculated by SLCM exceeds this amount, will be capped at \$10,000. The model also incorporates terrain data from the U.S.G.S. and the Soil Conservation Service; this date is used to account for higher placement costs in certain regions. (Model Methodology, pp.37-38)

Two types of structure sharing are accommodated in the Model. First, SLCM allows for user-specified inputs to account for sharing of poles and conduit with non-Sprint entities. In addition, "[T]he user can set the amount of sharing on the type of placement activity incurred such as plowing, rocky plowing, and cable boring as well as the structure units such as manholes and poles." (Model Methodology, p.38) Second, sharing can occur where distinct fiber and copper cables follow the same route; where this occurs,

structure costs are allocated between the cables prior to their assignment to grids. "Structure shared among cables will occur whenever fiber is placed in distribution for DS3 services, when fiber interoffice facilities follow a copper only main feeder, or when fiber served and copper served grids use the same feeder routes." (Model Methodology, p.39)

### ALECs

No ALEC party submitted any testimony on this issue; however, in its brief FDN submitted various criticisms of the SLCM. In its brief KMC indicates that it concurs with FDN's position and its critique.

FDN observes in its brief that the SLCM is based on the Benchmark Cost Proxy Model (BCPM) and notes that the FCC evaluated the BCPM and the HAI model as possible platforms for determining the cost of universal service for non-rural carriers. Referring to FCC Order 98-279 (the FCC's Universal Service Platform Order), FDN points out that the FCC expressed its preference for the use of geocoded data to ascertain customer locations, as advocated by the sponsors of the HAI model, while endorsing BCPM's road surrogating approach where actual customer location data are not available. (FDN BR at 7-8) FDN notes that Sprint chose to input geocoded data for it DS3 customers into the SLCM, but FDN criticizes Sprint for not using geocoded data for any other customers. FDN contends that such geocoded data ". . . is clearly available and Sprint should be required to use it." (FDN BR at 8-9)

Next, FDN discusses gridding versus clustering approaches to determine groupings of customers to whom plant eventually will be constructed. (FDN BR at 9-11) FDN notes that in its Platform Order the FCC discussed certain failings of gridding techniques, while ultimately endorsing clustering approaches as being preferable because they can better account for natural groupings of customers. (FDN BR at 11) FDN states that in the BellSouth phase of this proceeding all parties were in general agreement that BellSouth's model, the BSTLM, which incorporates a clustering approach, was appropriate. (FDN BR at 11-12) FDN contends that ". . . two factors that helped the BSTLM best account for customer locations were BellSouth's use of geocoded data and a clustering approach. . . ." and concludes "Sprint should be required to do the same." (FDN BR at 12)

FDN states that Sprint models stand-alone UNE loops assuming 100% use of universal digital loop carrier (UDLC), but models loop/port combinations as provided as a UNE-P assuming an integrated digital loop carrier (IDLC) architecture. (FDN BR at 13) FDN then proceeds to argue that ". . . use of DLC does not inhibit the ability to provide an unbundled voice loop nor does it inhibit the ability to provide DSL over loops served by DLC." (FDN BR at 12) FDN quotes from the FCC's Third Advanced Service report regarding the ability of "combo" cards used in NGDLC systems to provide xDSL services. (FDN BR at 13) FDN alleges that ",...use of these line cards will allow ILECs to provide both voice and data functionality on an unbundled basis even if DLC is utilized." (FDN BR at 13) FDN opines that regardless of whether IDLC is being deployed ubiquitously for unbundled loops in Sprint's network, the recent Supreme Court decision in <u>Verizon Communications, et al. v.</u> Federal Communications Commission, et al., 152 L.Ed. 2d 701, 122 S. Ct. 1646 (2002) requires such an assumption. (FDN BR at 13-15)

# <u>Analysis</u>

As noted above, there is no testimony from any party on this issue other than Sprint. The only opposing discussion arose in FDN's post-hearing brief; accordingly, staff initially will address FDN's claims.

FDN asserts that Sprint should be required to use geocoded data in conjunction with a clustering technique. FDN claims that a cost model that incorporates geocoded data on actual customer locations is superior to one that does not, and that such data is "clearly available." Moreover, FDN contends that the FCC has previously concluded that clustering approaches better reflect natural customer groupings.

Staff agrees that use of a clustering approach with geocoded data is the preferable cost modeling approach for outside plant. We note that this Commission previously reached a similar conclusion in its Universal Service Order:

We believe that, on balance, a model that incorporates a clustering approach in conjunction with geocoded data can better design outside plant facilities. (Order No. PSC-99-0068-FOF-TP in Docket No. 980696-TP, issued on January 7, 1999)

However, FDN's assertion that the geocoded data that it advocates Sprint be required to use are "clearly available," is not supported by this record. Other than for DS3 customers, there is no record evidence that Sprint has performed the extensive analysis needed to geocode customer locations throughout its service area. Thus, staff cannot recommend that Sprint be ordered to "use" such data in its model. Without such geocoded data, it does not appear possible to perform a clustering analysis.

FDN alleges that Sprint should be required to model standalone loops as though they were provisioned using IDLC systems. In support of this position, FDN offers an excerpt from the FCC's latest Advanced Services report concerning how a "combo" card provides DSLAM functionality in a DLC system (FDN BR at 13); an excerpt from the FCC's Project Pronto describing how SBC proposed to offer a combined voice and data offering (FDN BR at 13); and an excerpt from an order from another state commission (FDN BR at 14). As FDN notes, "Sprint contends that it does not model IDLC for unbundled loops because it is not technically feasible to provide a single unbundled loop path for loops served by DLCs." (FDN BR at 12; footnote omitted) Staff does not believe that the anecdotal references contained in FDN's brief constitute competent substantial evidence for this Commission to conclude whether or not a single DSO voice channel provisioned via an IDLC system in fact can be delivered to an ALEC as an unbundled loop. Absent record evidence to the contrary, staff believes Sprint witness Dickerson's claim is uncontroverted.

Staff acknowledges that virtually any cost model will have some deficiencies; by their nature we believe cost models attempt to yield a reasonable estimate of the cost of a UNE, a service, or whatever the cost object may be. We readily agree that superior, alternative modeling techniques may have been developed since BCPM, from which the SLCM was derived, was created. However, no alternative to the SLCM is available in this record. Nevertheless, we believe that the design reflected in the SLCM is reasonable, as are the investment amounts derived from the model used to estimate loop costs. Moreover, staff notes that this Commission came to a similar conclusion in the Docket No. 980696-TP, the Universal Service docket. After weighing the advantages and disadvantages of the two competing cost models in that proceeding, the Commission concluded that the BCPM 3.1, the basis for SLCM, was the preferable of the two.

## CONCLUSION

Staff recommends that the network design reflected in the SLCM be accepted for purposes of establishing recurring UNE rates in this proceeding, subject to staff's adjustments in other issues.

Issue 7(b)

**ISSUE 7(b)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(b) depreciation;

**RECOMMENDATION:** The appropriate lives and net salvage values to be used in the development of Sprint's forward-looking recurring unbundled network element (UNE) cost studies are those proposed by Sprint as shown on Table 7(b)-1. (P. Lee)

#### POSITION OF THE PARTIES

**SPRINT**: The appropriate assumptions and inputs that should be used in the development of forward-looking economic recurring costs are those set forth in the cost studies filed by Sprint-Florida on November 7, 2001, and as explained in the prefiled testimony of Sprint-Florida witnesses Michael Hunsucker, Kent Dickerson, Brian Staihr, Talmage Cox, Jimmy Davis and Terry Talken (Mr. Talken's testimony to be adopted by Michael Fuller).

FDN: Stipulate to Sprint's position.

KMC: Stipulate to Sprint's position.

### STAFF ANALYSIS:

#### PARTIES' ARGUMENTS

Dickerson Sprint witness testifies that the Federal Communications Commission's (FCC) Total Element Long Run Incremental Cost (TELRIC) pricing requirement for unbundled network elements requires the depreciation component of TELRIC be based on forward-looking economic lives of the underlying UNE asset categories. (FCC First Report and Order, 96-98 ¶703; TR 69). Accordingly, witness Dickerson states that Sprint has developed forward-looking economic lives for all UNE asset categories and normally utilizes these lives in its UNE cost studies. In this filing, however, witness Dickerson explains that Sprint has made what it hopes the Commission will find to be an appropriate and practical concession, and has used the depreciation lives approved for BellSouth in this proceeding. (See, Order No. PSC-01-1181-FOF-TP, issued May 25, 2001, and Order No. PSC-0102051-FOF-TP, issued

October 18, 20	01) (TR 69-70)	Those inputs are	shown in Table 7(b)-1.
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TABLE 7(b)-1: Live and Salvage Inputs					
Account	Life (Yrs.)	Salvage (%)			
Motor Vehicles	8	16			
Special Purpose Vehicles	7	0			
Garage Work Equipment.	12	0			
Other Work Equipment	15	0			
Buildings	45	0			
Furniture	15	10			
Office Support Equipment	11.5	5			
Computers	4.5	2			
Digital Switching	13	0			
Operator Systems	10	0			
Radio	9	(5)			
Circuit Equipment	8	0			
Station Apparatus	6	0			
Other Terminal Equipment	6	5			
Poles	35	(55)			
Aerial Cable Metallic	18	(14)			
Aerial Cable Fiber	20	(14)			
Underground Cable Metallic	23	(8)			
Underground Cable Fiber	20	(8)			
Buried Cable Metallic	18	(7)			
Buried Cable Fiber	20	(7)			
Submarine Cable Metallic	18	(5)			
Submarine Cable Fiber	20	(5)			
Intrabuilding Cable Copper	20	(10)			
Intrabuilding Cable Fiber	20	(10)			
Conduit	55	(10)			

Source: Order No. PSC-01-1181-TP, pp. 172-174; PSC-01-2051-FOF-TP, p.30.

## ANALYSIS

As noted in the post hearing positions of the parties participating in the Sprint proceeding, all have agreed with Sprint to use the depreciation inputs as ordered by Order No. PSC-01-2251-FOF-TP for BellSouth. Sprint states:

By adopting the depreciation rates approved for BellSouth, Sprint-Florida recognizes that the economic lives and salvage values of its forward-looking investment are similar to that of BellSouth. The economic lives of Sprint-Florida and BellSouth's network investments are both shaped by the common effect of technology changes, market competition, and physical wear and tear thus resulting in common depreciation rates. (EXH 10, p. 350)

Staff agrees with Sprint and the parties that it is reasonable to assume that similar plant exposed to similar factors of obsolescence such as technology, market competition, and physical wear and tear would exhibit similar depreciation lives and salvage values.

### CONCLUSION

In conclusion, the appropriate lives and net salvage values to be used in the development of Sprint's forward-looking recurring unbundled network element (UNE) cost studies are those proposed by Sprint as shown on Table 7(b)-1.

Issue 7(c)

**ISSUE 7(c)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(c) cost of capital;

**RECOMMENDATION:** For Sprint, the appropriate cost of capital is 9.86% based on a cost rate for common equity of 11.49%, a debt cost rate of 7.43%, and a capital structure consisting of 60% equity and 40% debt. (Lester)

# POSITION OF THE PARTIES

**SPRINT**: In keeping with the forward-looking nature of the costing methodology required for unbundled elements, Sprint-Florida relies on a market-value based weighted average cost of capital. The weighted average cost of capital for Sprint-Florida is 12.26% based on the market value capital structure of 84.02% equity and 15.98% debt; the forward-looking market value cost of common equity of 13.10%; and the forward-looking market value cost of debt of 7.81%.

**FDN**: The Commission should reject Sprint's use of a 12.26% cost of capital and should require Sprint to re-run its cost studies using a cost of capital no higher than the 10.24% approved for BellSouth.

**<u>KMC</u>**: KMC concurs with the position and analysis of Florida Digital Network (FDN) and Z-Tel.

<u>Z-TEL</u>: As to Issue 7(c), Z-Tel contends that the Commission should reject the proposed cost of capital of Verizon and Sprint. The Commission should harmonize its decision in the BellSouth track with that of this proceeding when calculating the appropriate cost of capital to be used when setting UNE rates.

**STAFF ANALYSIS**: Three witnesses offered testimony regarding the forward looking cost of capital input for Sprint's cost model. Sprint witness Brian Staihr recommends 12.26% as the forward looking cost of capital based on a cost of equity of 13.10%, a cost of debt of 7.81% and a capital structure consisting of 84.02% equity and 15.98% debt. (TR 135) Z-Tel witness George Ford recommends a forward looking cost of capital of 8.50% based on a cost of equity ranging from 10.0% to 10.1%, a cost of debt ranging from 6.10% to 6.25%, and a capital structure consisting of 60% equity and 40% debt. (TR 285-286) For Sprint, staff witness David

Draper recommends 9.86% as the appropriate forward looking cost of capital based on a cost of equity of 11.49%, a cost of debt of 7.43%, and a capital structure consisting of 60% equity and 40% debt. (TR 240; EXH 6, Revised Exhibit DJD-6; EXH 37, pp. 6-8)

# COST OF EQUITY

Sprint witness Staihr employs a discounted cash flow model (DCF) and a capital asset pricing model (CAPM) in determining his recommended cost of equity. (TR 124-128; 132) He applies these models to a group of publicly traded firms that he believes are comparable in risk to Sprint. (TR 119)

To determine his comparable group, witness Staihr uses four risk measures: the common equity ratio, the cash-flow-to-capital ratio, the pre-tax fixed charge coverage ratio, and the revenues-to -net plant ratio. Witness Staihr believes these risk measures capture both business and financial risk. (TR 119) Using cluster analysis - a statistical technique - and 621 firms from Standard and Poor's (S & P) Research Insight database, witness Staihr identifies 20 firms that he believes have the closest risk measures to Sprints risk measures. (TR 121; EXH 4, p. 5)

Witness Staihr states that, in making comparisons of firms' ratios to Sprint's ratios, it is important to obtain a group of firms whose combined, cumulative data comes closest to the data of Sprint. (TR 122) Witness Staihr believes telecommunications firms are not necessarily an appropriate proxy for Sprint. (TR 123)

The DCF model determines investors' required return by matching a firm's current market price with expected cash flows discounted at the investors' required return. For his DCF model, witness Staihr uses a constant growth quarterly compounding model. He uses stock prices for his comparable group of companies for the period June 25, 2001 to July 9, 2001. (TR 124-125) For the dividend growth rate of his comparable companies, witness Staihr uses the five-year average earning per share growth rate estimated by the Institutional Brokers Estimate System (IBES). He believes that earnings growth is an appropriate indicator of long-term dividend growth. The result of his DCF model is 13.71%. (TR 126-127; EXH 4, p. 6) The CAPM is a risk premium model that defines the investors required return as the risk-free return plus a risk premium based on the overall return on a market index and beta, a risk measure for individual stocks. (TR 128-129) Witness Staihr uses a risk-free rate of 6.00%, which is based on September 2001 U.S. Treasury bond futures traded from June 25, 2001 to July 9, 2001. (TR 129; EXH 4, p. 8) Witness Staihr's market risk premium is 7.27% and is derived from the risk premium of common stocks over U.S. Treasury bond returns from 1926 to 2000. The 6.00% risk-free rate and the 7.27% market risk premium, when added together, indicate a return on the overall market of 13.27%. Witness Staihr states this return is reasonable because a DCF analysis on the 621 firms from his cluster analysis indicates a return of 15.08%. (TR 130-131) With a beta of .86 based on his 20 comparable companies, witness Staihr calculates a CAPM result of 12.21%. (TR 132; EXH 4, pp. 8-9)

Adding 14 basis points for issuance costs associated with issuing common stock, witness Staihr states the range for Sprint's cost of equity is 12.35% to 13.85%. His recommended 13.10% cost of equity is the midpoint of this range. (TR 133-134)

Z-Tel witness Ford bases his recommended cost of equity on the cost of equity set by the Commission for BellSouth in Order No. PSC-01-1181-FOF-TP, issued May 25, 2001. Specifically, he employs a CAPM to determine his recommended cost of equity. (TR 272; 279) Witness Ford notes that there are irregularities in the inputs used for the CAPM in the BellSouth Order. He provides corrections to those inputs. (TR 279-282)

For the risk-free rate, witness Ford uses 5.31% based on the yields on U.S. Treasury bonds from October 2001 to December 2001. (TR 281-282; EXH 7, p. 2) Witness Ford uses 8.34% as the market risk premium, which is based on the 20 year period from 1982 to 2001. Witness Ford believes historical risk premiums are appropriate. He notes that there are many methods for estimating the market risk premium and that Verizon witness James Vander Weide used a 7.8% risk premium in his testimony in the recent Florida Power rate case, i.e., Docket No. 000824-EI. (TR 283-284; EXH 7, p. 7) For the beta input, witness Ford uses a beta of .58. This is based on the average beta, as reported by BARRA, for Verizon, BellSouth, and SBC for the period January 2001 through December 2001. (TR 284; EXH 7, p. 6)

Witness Ford's CAPM result is "about 10%." (TR 285) Staff notes that witness Ford's CAPM results range from 10.0% to 10.1%. (EXH 7, p. 9)

Staff witness Draper applies a DCF and CAPM analysis to an index of telecommunications companies listed in the Value Line Investment Survey. He believes these companies are comparable to the business and financial risk associated with the provision of UNEs. (TR 231-232) He eliminated telecommunications companies that receive less than 75% of their revenue from telecommunications operations. He also eliminated companies with insufficient financial data and companies that were the subject of an ongoing merger or acquisition. (TR 235)

For his DCF analysis, witness Draper notes that the cost of equity is the discount rate that equates the present value of expected cash flows associated with a stock to the market price of the stock. (TR 236) He employs a two-stage DCF model with stock prices from October 2001 and dividend and growth inputs from Value Line. (TR 236) He allows 3% for issuance costs. The result of his DCF analysis for his index of telecommunications companies is 11.45%. (TR 237; EXH 6, p. 4)

Witness Draper's CAPM result is 11.02%. He notes that the CAPM is dependent on the beta statistic, which measures risk that cannot be diversified away, i.e., systematic risk. Using a DCF analysis and inputs from Value Line, witness Draper calculates a required return on the overall market of 10.87%. His risk-free rate is 5.4% based on the forecasted rate on 30-year U.S. Treasury bonds. The beta for witness Draper's CAPM is 1.02 and is based on the average beta for his index of telecommunications companies. (TR 238-239; EXH 6, p. 1 and p. 5, as corrected)

Witness Draper notes that the average bond rating for his index of companies is single A and Sprint's bond rating is triple B. To allow for this additional risk, witness Draper adds 25 basis points to the average of his models, 11.24%, to obtain his recommended cost of equity for Sprint of 11.49%. (TR 239; EXH 6, p. 6)

In rebuttal to witnesses Draper and Ford, Sprint witness Staihr states that the use of telecommunications firms as a proxy for determining Sprint's required return is an assumption. In contrast, witness Staihr states that he used four measures and cluster analysis to measure risk and identify the appropriate proxy group for Sprint. (TR 137-138)

Witness Staihr states that witness Draper's index includes AT&T and Telephone & Data and that these two firms receive a minority of their revenue from local telephone service. Witness Staihr reproduces witness Draper's DCF model excluding AT&T and Telephone & Data, which produces a result of 13.5%. (TR 140-141; EXH 5, p. 2) Witness Staihr disagrees with witness Draper's calculation of the required market return. In calculating this number, witness Draper excluded firms that have growth rates above 20%. Witness Staihr believes the return should be calculated for the entire market. Witness Staihr adjusts witness Draper's CAPM result for this and obtains a CAPM result of 11.94%. (TR 141-143) Witness Staihr states that the corrected cost of equity using witness Draper's analysis is 12.97%. (TR 144)

Regarding witness Drapers DCF model, witness Ford disagrees with the growth rate inputs. He believes witness Draper's sustainable growth rate is too high to be sustainable. (TR 303-305) Witness Ford believes witness Draper should have excluded Qwest Communications and CenturyTel from his index, and that Sprint is a reasonable inclusion. (TR 305-309) Using his adjustments to witness Draper's two-stage DCF model, witness Ford calculates a range of 8.49% to 10.56%. (TR 312)

Regarding witness Draper's CAPM analysis, witness Ford notes his disagreement with witness Draper's comparable group. In addition, witness Ford believes that witness Draper's beta, 1.02, is too high. He specifically disagrees with witness Draper's use of Value Line betas. (TR 314-318)

Incorporating his adjustments to witness Draper's CAPM, witness Ford calculates a range of 8.40% to 8.58%. With his adjustments to witness Draper's models, witness Ford states the cost of equity is "about 9%." He believes the upper bound for the cost of equity is 10.50%. (TR 320-321)

Regarding the comparable group of companies used by the witnesses, staff notes that in the BellSouth UNE proceeding the Commission used telecommunications firms as the basis for the cost of equity and that the Commission rejected the use of non-telecommunications firms. (FPSC Order No. PSC-01-1181-FOF-TP, issued May 25, 2001, p. 181-182) Sprint witness Staihr claims that

the four risk measures he uses objectively select the 20 firms most comparable in risk to Sprint. However, he acknowledges that some of those 20 companies might be different if other risk measures were used. He does say there is no reason to think they would be different. (EX 16, pp. 23-24) Witness Staihr acknowledges that a firm's bond rating is a forward looking assessment of its creditworthiness. (EXH 16, pp. 11-12) The companies in his comparable group have S & P bond ratings ranging from BB+ and "not rated" to AA-. (EXH 10, p. 3) Staff believes the bond ratings suggest significant variability in risk for Staihr's comparable companies.

Further, witness Staihr's comparable group consists of very profitable companies in competitive industries. (EXH 16, p. 30 & pp. 32-33) In preparing his testimony, witness Staihr did not review the level of competition that Sprint-Florida faces and he did not review the telecommunications industry. (EXH 16, pp. 42-43) For the above-cited reasons, staff believes witness Staihr's comparable group of companies is not a useful proxy for determining the cost of equity related to unbundled network elements.

Both witnesses Staihr and Ford object to witness Draper including Telephone & Data and AT&T in his index of companies because, they state, these companies do not rely primarily on local telephone service. (TR 140, 308) Staff notes that the companies witness Draper uses are considered telecommunications companies by Value Line. (TR 232) Witness Draper's companies receive at least 75% of their revenue from the provision of telecommunications services, though not necessarily local exchange service. (EXH 6, p. 1) Staff believes witness Draper's index of companies is acceptable.

In determining the expected return on the market input for his CAPM model, witness Draper eliminated firms with growth rates in excess of 20%. (TR 238) He also eliminated firms that do not pay dividends or have negative projected dividend and earnings growth. (TR 238) Staff believes this is appropriate. Staff believes that growth rates in excess of 20% are not sustainable in the long run. (See FPSC Order No. PSC-01-1181-FOF-TP, pp. 181-182)

However, staff does not agree with witness Ford that witness Draper's long-term sustainable growth rate, 10.3%, is excessive. Witness Draper based this rate on Value Line's projected return on equity and earnings retention rate for his index of companies. (TR 236-237; EXH 6, p. 4) The long-term growth rate is matched with a near-term growth rate of 3.3%. (EXH 6, p. 4) By operation of math, the near-term growth rate has a significant effect on the DCF result. Staff believes, taken together, these growth rates produce a reasonable and sustainable growth rate for determining the cost of equity. In contrast, witness Staihr's DCF model uses an average annual growth rate, based on earnings growth of his comparable companies, of 11.96%. (EXH 16, pp. 29-30) The individual growth rates range as high as 15.80%. (EXH 4, p. 6)

Staff also disagrees with witness Ford's objections to the beta statistic in witness Draper's CAPM. Specifically, witness Ford objects to the use of Value Line betas. (TR 315-316) Witness Ford essentially second-guesses Value Line's calculation of the beta statistic. (TR 315-316) Staff notes that witness Staihr, in addition to witness Draper, used Value Line betas. (TR 132, 238-239; EXH 4, p. 10; EXH 6, p. 1 & p. 5) Witness Draper states that the average beta for his index companies is reasonable. (TR 239)

Staff notes the wide difference between the cost of equity recommended by witness Staihr, 13.1%, and the 10% recommended by witness Ford. (TR 134, 285) As noted above, staff believes witness Draper employed a reasonable proxy group of companies and reasonable inputs for his models. Therefore, staff recommends that the Commission use 11.49% as the cost of equity in determining Sprint's cost of capital. (EXH 6, p. 6)

### COST OF DEBT

Sprint witness Staihr recommends 7.81% as Sprint's forwardlooking cost of debt. He bases this on a 6.00% risk-free return calculated from 20-year U.S. Treasury bond futures. To this he adds a credit spread of 173 basis points based on the yield spread between "A" rated 20-year telephone bonds and 20-year U.S. Treasury bonds. He states that 7.81% is the rate at which Sprint could issue debt in July 2001. (TR 117-118; EXH 4, p. 2)

Z-Tel witness Ford recommends a cost rate for debt of 6.10% to 6.25% for Sprint. He bases this on the debt cost rate calculation in FPSC Order No. PSC-01-1181-FOF-TP. He incorporates short-term debt into his recommendation. The long-term debt cost rate is based on the yield spread of Aaa public utility bonds over 30-year

U.S. Treasury bonds for the period starting in March 1995 and ending in February 2000. (TR 274-278; EXH 7, p. 2)

For Sprint, staff witness Draper recommends 7.43% as the appropriate forward-looking cost of debt. He incorporates a short-term debt cost rate of 5.36% based on the forecasted prime rate. His long-term debt cost rate, 8.12%, is based on the forecasted rate for 10-year Treasury bonds and a credit spread derived from the yields on BBB rated utility bonds. Witness Draper calculates the credit spread during the twelve month period that ended with November 2001. He assigns a 25% weight to short-term debt and a 75% weight to long-term debt. (TR 232-235; EXH 6, p. 6)

In rebuttal, witness Ford disagrees with witness Draper's credit spread in calculating the long-term debt cost rate. Witness Ford believes this calculation should be based on the method the Commission used in the BellSouth UNE proceeding. Witness Ford notes that the credit spread for BellSouth was formulated using credit spreads calculated over a short period and a long period. (TR 292-296) He recalculates witness Draper's long-term debt cost rate for Sprint at 7.55%. (TR 295-296) Also, witness Ford disagrees with witness Draper's short-term debt cost rate because witness Draper bases his short-term cost rate on the prime rate. (TR 296)

Staff notes that witness Staihr calculated a credit spread over a two week period, whereas witness Draper used a twelve-month period. (TR 117-118, 234; EXH 16, pp. 40-41) Staff believes witness Draper's use of a twelve month period is reasonable. The record allows for many choices of periods over which the credit spread is calculated. In the BellSouth order, the Commission chose an average of credit spreads calculated over three month and five year periods. (FPSC Order No. PSC-01-1181-FOF-TP, pp. 184-185) Staff disagrees with witness Ford that exact consistency with the BellSouth order is necessary for determining the cost of capital inputs. In addition, witness Draper tailored his recommended cost of debt for Sprint to match Sprint's bond rating.

Witness Staihr disagrees with the use of short-term debt in calculating the debt cost rate whereas witness Ford agrees with the use of short-term debt but recommends the commercial paper rate as the appropriate proxy for short-term debt. (EXH 16, p. 41; TR 296-299) Witness Draper uses forecasted prime rates as the basis for the short-term debt cost rate. Staff believes this is forwardlooking and therefore acceptable. For Sprint, the appropriate forward-looking cost rate for debt is 7.43%.

## CAPITAL STRUCTURE

For Sprint, witness Staihr recommends a market-value capital structure as the forward looking capital structure. This market-value capital structure consists of 84.02% equity and 15.98% debt. He calculates this capital structure based on the market value of Sprint's debt and the market-to-book ratio for his comparable group of companies. He notes that this resulting market value is reasonable compared with the values suggested by recent LEC acquisitions. He also notes that his recommended capital structure is consistent with capital structures presented to (or filed with) the Commission in recent UNE proceedings in this docket. (TR 115-117)

Z-Tel witness Ford employs a capital structure consisting of 60% equity and 40% debt based on the Commission's BellSouth UNE proceeding. (TR 272, 285-286) Staff witness Draper also recommends a capital structure with 60% equity and 40% debt. He bases this on the order issued in the BellSouth phase of this proceeding. He notes that the average equity ratio for <u>Value Line's</u> telecommunications companies is 63% as of November 2001. Also, <u>C.A. Turner Utility Reports</u>, a recognized financial publication, states that the average equity ratio for telecommunications companies is 57.60% in 2000. (TR 232; EXH 6, p. 1 & p. 6)

Witness Staihr rebuts the capital structure positions taken by witnesses Ford and Draper. Witness Staihr believes that only a market-value capital structure is appropriate for calculating the forward-looking cost of capital. (TR 144-145) He notes that witness Draper's cost of capital would be significantly higher with a market-value capital structure. Witness Staihr refers to authoritative sources that recommend market value capital structures in calculating the cost of capital. (TR 145-147)

Staff notes that the Commission addressed the issue of an appropriate capital structure in the BellSouth phase of this docket. For BellSouth, the Commission noted that market-value capital structures have not been widely accepted and produce aberrant coverage ratios. (See FPSC Order No. PSC-01-1181-FOF-TP, pp. 185-187) The record in this case continues to support the contention that market-value capital structures are not widely

accepted. (EXH 10, pp. 28-30 & pp. 32-33) In addition, a capital structure with 60% equity is in agreement with Sprint's target book value capital structure, which it uses for planning purposes. (EXH 10, p. 36) Staff infers from this that a 60% equity ratio for Sprint is forward-looking. The FCC does not require the use of market-value capital structures in calculating the forward-looking cost of capital. (EXH 16, p.13) For these reasons, staff recommends a capital structure for Sprint consisting of 60% equity and 40% debt.

#### CONCLUSION

Staff believes witness Draper's cost of capital is forwardlooking. (TR 231) For Sprint, staff recommends a forward-looking cost of capital of 9.86% based on a cost of equity of 11.49%, and cost of debt of 7.43% and a capital structure that is 60% equity and 40% debt. The recommendation and positions of the parties is summarized in the table below:

TABLE 7(c)-1: Sprint Cost of Capital Summary						
	Sprint witness Staihr	Z-Tel witness Ford	Staff witness Draper	Staff Recommendation		
Capital Structure	84.02% equity, 15.98% debt	60% equity 40% debt	60% equity 40% debt	60% equity 40% debt		
Cost of Debt	7.81%	6.1% to 6.25%	7.43%	7.43%		
Cost of Equity	13.10%	10% to 10.1%	11.49%	11.49%		
Overall Cost of Capital	12.26%	8.5%	9.86%	9.86%%		

Issue 7(d)

**ISSUE 7(d)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(d) tax rates;

**RECOMMENDATION:** The appropriate inputs for Florida-specific tax rates should be as follows: a combined (composite) federal and state income tax rate of 38.58%, an ad valorem tax rate of 0.72%, and a Regulatory Assessment Fee rate of 0.15%. (Kenny)

### POSITION OF THE PARTIES

**SPRINT**: Sprint-Florida utilizes the Federal and State income tax, state ad valorem tax, and the Regulatory Assessment Fee tax rates currently in effect in Florida. The Federal and State income tax and state ad valorem tax rates are reflected in the specific inputs utilized in Sprint-Florida's annual charge factor development. The Regulatory Assessment Fee tax is included in the common cost factor development and application.

**FDN**: Stipulate to Sprint's position.

KMC: Stipulate to Sprint's position.

**Z-TEL:** No position.

**<u>STAFF ANALYSIS</u>**: In his direct testimony, Sprint witness Dickerson states:

Sprint's filing utilized the Federal and State income tax, state as valorem tax, and the Regulatory Assessment Fee tax rates currently in effect in Florida. The Federal and State income tax and state ad valorem tax are reflected in the specific inputs utilized in Sprint's annual charge factor development, which are contained in the ACF section of the cost study documentation. The Regulatory Assessment Fee Tax is included in the common cost factor development and application. (TR 70)

As set forth in Witness Dickerson's direct testimony, the federal income tax rate is 35% and the state income tax rate is 5.5%. This results in a combined (composite) tax rate of 38.58%. A composite tax rate is used to account for the state income taxes

that are deductible for federal income tax purposes. (EXH 2, V.II, T Inputs, p.3) Sprint-Florida also used an ad valorem tax rate of .72%. (EXH 2, V.II, T Inputs, p.3) The ad valorem tax rate is calculated by dividing the property tax expense for Sprint-Florida by the beginning balance of property, plant, and equipment investment. (EXH 10, p.268) The Regulatory Assessment Fee is included in Sprint-Florida's model as an adder to the Common Factor at a rate of .15%. (EXH 2, V.II, T OD&C, p.2)

Based on the record in this proceeding, staff recommends a composite federal and state income tax rate of 38.58%, an ad valorem tax rate of .72%, and a Regulatory Assessment Fee rate of .15%. It should also be noted that all of the parties have either agreed with Sprint-Florida's position or have taken no position on the Florida-specific tax rates that are utilized by Sprint-Florida.

#### CONCLUSION

The appropriate inputs for Florida-specific tax rates should be as follows: a combined (composite) federal and state income tax rate of 38.58%, an ad valorem tax rate of 0.72%, and a Regulatory Assessment Fee rate of 0.15%.

**ISSUE 7(e)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(e) structure sharing;

**<u>RECOMMENDATION</u>**: The appropriate assumptions and inputs for structure sharing should be 90 percent for buried and underground feeder and distribution cables, and 31 percent for poles as proposed by Sprint. (Cater)

#### POSITION OF THE PARTIES

**SPRINT**: Structure sharing refers to the portion of the aerial structure (poles), and buried cable excavation and conduit costs, that are shared with other companies. The structure sharing inputs are expressed in terms of the percent of costs assigned to telephone, which equates to the percentage of the structure cost that is borne by the ILEC.

**FDN**: The Commission should apply the FCC's structure sharing percentages. Understating the structure sharing percentages increases the investment cost in the model since the telephone company bears more than its forward-looking share of the structure costs.

 $\underline{\mathsf{KMC}}$ : KMC concurs with the position and analysis of Florida Digital Network (FDN).

# STAFF ANALYSIS:

## SPRINT'S POSITION

In his direct testimony, Sprint witness Dickerson describes structure sharing as the percentage of poles, buried cable, and conduit excavation costs which Sprint shares with other companies. The percent of the structure cost applied to the ILEC is the percent of costs applied to telephone. For underground and buried feeder and distribution cables, structure sharing inputs, for most of Sprint's customers, were set at 90 percent. This input provides a 10 percent level of structure sharing that exceeds what Sprint is currently experiencing in Florida, and allows for future additional structure sharing opportunities. Due to the fact that when using plowing construction, the trench is closed as the cable

is placed, the structure sharing input for plowing was set at 100 percent since there is no opportunity to share the trench. Based on Sprint's experiences in both leasing poles from other entities and allowing other entities to lease its poles, it sets its structure sharing input for poles at 31 percent for all density zones. (TR 70-71)

Regarding the limited opportunities to share below ground construction costs with power and cable companies, witness Dickerson states that in order for multiple entities to share below ground plant there must be coordination in the construction between the entities. There are also safety and space issues that can make it more difficult for multiple entities to share below ground structures. (TR 72-73)

In his deposition, witness Dickerson pointed out that while the model assumes that ten percent of the conduit is being leased by other parties, the actual sharing percent for conduit in Sprint's networks is actually two percent. (EXH 14, p. 11)

In an interrogatory, Sprint was asked about the possibility of increasing structure sharing in the future. Sprint replied that the various entities would need to coordinate construction and evaluate the increased placement and maintenance costs of sharing buried and underground facilities, and determine the net benefit of sharing underground facilities against placing its own underground facilities. (EXH 10, pp. 84-85)

In an interrogatory, Sprint was asked why a constant structure sharing percentage for poles was assumed in all density zones, Sprint responded that it only has the data on a statewide basis. Compared to buried and underground plant, Sprint has a small amount of aerial structures, and ". . .the data would not lend itself to be representative of all the zones." (EXH 10, p. 276)

# FLORIDA DIGITAL NETWORK'S POSITION

In its brief, FDN advocates the structure sharing percentages contained in the FCC's USF Order.<sup>5</sup> According to FDN, Sprint's

<sup>&</sup>lt;sup>5</sup>In The Matter of Federal-State Joint Board on Universal Service and Forward Looking Mechanisms for High Cost Support for Non-Rural LECs, CC Docket Nos. 96-45 and 97-160, Tenth Report & Order, FCC 99-304 (Released November 2, 1999).

proposed structure sharing inputs are, for the most part, inconsistent with the FCC's Order. (FDN BR at 16-17) Staff notes there is no testimony in the record to support FDN's position. The little discovery regarding this issue, referencing the FCC's USF Order, involves plant mix which appears to be more related to Issue 7(f), Structure Costs.

In its USF Order,<sup>6</sup> the FCC recommended the following structure sharing percentages:

We adopt the following structure sharing percentages that represent what we find is a reasonable share of structure costs to be incurred by the telephone company. For aerial structure, we assign 50 percent of structure cost in density zones 1-6 and 35 percent of the costs in density zones 7-9 to the telephone company. For underground and buried structure, we assign 100 percent of the costs in density zones 1-2, 85 percent of the cost in density zone 3, 65 percent of the cost in density zone 4-6, and 55 percent of the cost in density zones 7-9 to the telephone company. (FCC Order No. 99-304 ¶ 243, as quoted in FDN BR at 16)

### CONCLUSION

Staff is aware that due to the amount of coordination required between entities, large amounts of structure sharing are not possible with underground and buried plant. Thus, Sprint's proposed input of 90 percent for underground feeder and distribution plant is appropriate. This allows for 10 percent of the structure being assigned to other utilities, which is higher than what Sprint is currently experiencing in its network. For example, the current structure sharing rate for underground conduit in Sprint's network is about two percent. (EXH 14, p. 30)

For aerial plant, Sprint proposes an input of 31 percent, which means that 31 percent of the cost of the aerial plant is assigned to telephone. While this percentage is based on Sprint's actual experience in Florida, Sprint also assigns less of the aerial structure to the telephone company than would result from

<sup>6</sup>Ibid.

FDN's proposed use of the FCC's USF Order, which allocates either 35 or 50 percent of the cost of aerial structure to telephone.

FDN's proposal for structure sharing inputs is based on the FCC's USF Order, which states that the inputs are nationwide averages instead of company-specific data. (FCC Order No. 99-304,  $\P\P$  30, 32) Staff believes that company-specific data is more appropriate for this proceeding, since it allows for state-specific factors to be taken into consideration.

In conclusion, staff recommends that the appropriate assumptions and inputs for structure sharing should be 90 percent for buried and underground feeder and distribution cables, and 31 percent for poles as proposed by Sprint.

Issue 7(f)

**ISSUE 7(f)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(f) structure costs;

**RECOMMENDATION:** Staff believes the assumptions and inputs for structure costs proposed by Sprint are appropriate and recommends that they be used in conjunction with staff's recommended changes in all other applicable issues. (Cater)

#### POSITION OF THE PARTIES

**SPRINT**: Structure costs are the costs for structures (conduit systems, trenches, poles) supporting copper and fiber feeder and distribution cable. Sprint-Florida's Florida specific structure cost inputs were developed based on an analysis of the entire 1999 and 2000 contractor construction costs and activities.

**FDN**: No position<sup>7</sup>

**<u>KMC</u>**: KMC concurs with the position and analysis of Florida Digital Network (FDN).

**STAFF ANALYSIS**: In his direct testimony, Sprint witness Dickerson describes structure costs as the cost for the conduit systems, trenches, and poles that are used to support feeder and distribution plant. The two basic categories of structure cost inputs are the type of construction activity and the percent of construction done using the various types of construction activity. (TR 73)

Sprint witness Dickerson adds that the structure costs were based on the most current information (1999 and 2000) available in its network construction program and states that this information is the most relevant data for predicting forward-looking construction costs. (TR 73-74)

<sup>&</sup>lt;sup>7</sup>While this issue was not mentioned at all in FDN's post-hearing brief, in its prehearing statement its position was "No position at this time."

In the Sprint Loop Cost Model (SLCM) Loop Documentation section, Sprint explains that the pole costs assigned to telephone operations are based on the number of Sprint-owned poles, Sprint's carrying costs for these poles, the number of pole attachments Sprint has on poles owned by other entities, ". . .less the number and cost of other entities' attachments to Sprint poles." (EXH 2, Loop Module, p. 23)

In an interrogatory, Sprint was asked why its distribution and feeder plant differ so significantly from the plant mix percentages approved by the FCC in its USF Order<sup>8</sup>, Sprint responded that the plant mix used in its cost model is based on its actual Florida data, while the FCC Order uses national default values that will vary significantly from Florida-specific data. (EXH 11, pp. 32-33)

Regarding the FCC's inputs, Sprint points out that ". . .they are inconsistent with a) Florida Public Service Commission rules, and b) the fact that Florida experiences hurricanes." (EXH 11, p. 32) Sprint goes on to explain that the FCC's default of 30 percent aerial for distribution plant is inconsistent with the FPSC's rule requiring that all new distribution plant be placed below ground. Sprint also adds that hurricanes are detrimental to aerial plant and in hurricane prone areas, there would be additional maintenance costs associated with aerial plant. (EXH 11, pp. 32-33)

Staff notes that Rule 25-4.088(1), Florida Administrative Code, states:

Extensions of telephone distribution lines applied for after the effective date of these rules, and necessary to furnish permanent telephone service to all structures within a new residential subdivision, or to new multipleoccupancy buildings, shall be made underground; except that the utility may not be required to provide an underground distribution system in those instances where

<sup>&</sup>lt;sup>8</sup>In The Matter of Federal-State Joint Board On Universal Service and Forward Looking Mechanism for High Cost Support for Non-Rural LECs, CC Docket Nos. 96-45 and 97-160, Tenth Report & Order, FCC 99-304 (Released November 2, 1999) at ¶¶ 236-240.

the applicant has elected to install an overhead electric distribution system.

Since the effective date of this rule was in 1971, it is likely that a vast majority of new construction, since 1971, has been served by underground or buried facilities.

# CONCLUSION

Sprint is the only party that provided any testimony on this issue. While FDN waved its position on this issue, it did send out some discovery concerning the plant mix and why Sprint was not using the FCC's USF Order. (EXH 11, pp. 32-33) Staff agrees with Sprint that the FCC's USF Order is based on national averages, rather than state-specific information. Since the USF inputs do not contain Florida-specific information, staff does not believe that they should be used in this proceeding.

Based on the limited record on this issue, staff believes the assumptions and inputs for structure costs proposed by Sprint are appropriate and recommends that they be used in conjunction with staff's recommended changes in all other applicable issues.

Issue 7(g)

**ISSUE 7(g)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(g) fill factors;

**RECOMMENDATION:** The appropriate assumptions and inputs for fill factors in the forward-looking UNE cost studies should be those fills filed by Sprint. (Cater)

# POSITION OF THE PARTIES

**<u>SPRINT</u>**: Sprint-Florida's feeder cable fill factors were developed based on Florida wire center-specific data for feeder cable fills, and reflect Sprint's real-life experience.

**FDN**: Sprint's fill factors are generally too low and do not reflect a forward-looking, least-cost network built for a reasonable projection of actual demand. The Commission should find the fill factors to be no lower than 85%. Sprint's assumptions as to residential and business lines far exceed current levels of demand.

**<u>KMC</u>**: KMC concurs with the position and analysis of Florida Digital Network (FDN).

# STAFF ANALYSIS:

# SPRINT'S POSITION ON FILL FACTORS

In his direct testimony, Sprint witness Dickerson describes fill factors as ". . .the percentage of available network capacity utilized." He continues his testimony by describing the three factors that contribute to utilization:

• <u>Anticipation of future needs</u> is that factor whereby telecommunications companies determine their future plant needs considering the fact that it is cheaper to install facilities for future demand than to install facilities as they are needed,

- <u>Capacity Acquired in "Blocks"</u> is the element that capacity is only available in certain sizes; therefore, unused capacity will exist, and
- <u>Construction Time</u> is the amount of time needed to plan and construct facilities when replacing or expanding capacity. (TR 74)

Witness Dickerson continues that in order to efficiently deploy cable facilities, one must look at the cost-benefit relationship of unused capacity and the cost of installation. If there is not enough capacity, the company will not be able to meet expected installation intervals. Sprint's current cable fill allows for most customers to receive a new service installation within three days. In order to achieve parity, the same level of cable fill is needed to meet the expectations of the ALECs. (TR 75)

Concerning the FCC Order<sup>9</sup> and fill factors, Sprint witness Cox provides the following quote from the FCC Order:

"Per-unit cost shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per-unit costs associated with the element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element." (TR 167-168)

In an interrogatory response, Sprint described fill and described the kinds of fill by saying that it assumes that each household will have two lines; therefore, distribution fill is set at 100 percent. Fiber cable fill is set at 75 percent. (EXH 11, p. 1)

In the same interrogatory response, Sprint defines the following terms in regards to fill:

 $<sup>^9</sup>$ In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, CC Docket No. 96-98 Order No. FCC 96-325 (August 8, 1996),  $\P$  682.

<u>Actual fill</u> is defined as "the total feeder pairs in service divided by total feeder pairs available in each wire center." (EXH 11, p. 1) In order to determine feeder cable size one must divide the "total pairs served by the feeder fill input factor for the applicable density zone. The result of this calculation is then mapped to the cable size that meets or exceeds the cable pairs required." (EXH 11, p. 2)

Effective fill "is a term Sprint uses to represent the pairs served divided by the total pairs available." (EXH 11, p. 2)

<u>SLCM fill</u> "is the input into the model that results in cable utilization that approximates the actual fill." (EXH 11, p. 2 If the actual fill was used in the model, the effective fill that would result would be lower than the actual fill. In determining SLCM fill, "the input is increased so that the resulting cable utilization approximates the actual fill." (EXH 11, p. 2)

### FEEDER FILL

Describing the fill factors used in this filing, witness Dickerson states that feeder fill factors are based on Florida wire center-specific data, and they are adjusted to allow for the fact that the model must select cable sizes that result in additional unused cable pairs. (TR 75)

In Loop Workpaper 11, Sprint shows its company-wide actual feeder fill to be 50.67 percent, its effective fill to be 49.99 percent, and its SLCM fill to be 59.17 percent. (EXH 2, Loop Workpaper 11, p. 2) In his deposition, witness Dickerson states that this workpaper only showed the fill on Sprint's copper feeder plant and concedes that the feeder fills in the model are Sprint's actual fills. The witness also states that he needs fills of these levels in order to make installations in three days or less. (EXH 14, pp. 13-14, 16)

Sprint witness Dickerson states that the fiber feeder fill is set at 75 percent in the model. (EXH 14, p. 81) The reason that the fiber feeder fill is higher is due to the fact that ". . .fiber fill is determined by [the] number of individual systems that need to be served on it and [the] number of individual high-capacity

loop circuits or interoffice circuits that need to be served off of it." (EXH 14, p. 81)

### DISTRIBUTION FILL

In his direct testimony, witness Dickerson explains that the distribution fill was set at 100 percent and the model is set for two distribution pairs per household. Two distribution pairs is the forward-looking, least cost method to meet demand for multiple lines, and avoids inefficient construction in the future. (TR 75-76)

his deposition, witness In Dickerson explained the distribution fill and the reasons that it is modeled for two pairs per household. Where there are more pairs in service than households, you will have a fill greater than 50 percent. Their reasoning behind modeling two pairs per household is the difficulty in predicting how many households would want a second line. Also, the Sprint witness notes that 60 percent of the cost of cable construction is labor, so most of the additional cost in initially laying additional plant is the small increase in the cost of the He continues by stating that people do not like it when cable. Sprint comes through neighborhoods to place additional cable. (EXH 14, pp. 13-14)

While distribution cable is placed at a rate of two pairs per residential unit, Sprint witness Dickerson concedes that Sprint's actual utilization factor for distribution plant to residential units is between the low thirties and high forties. (EXH 14, p. 73)

### TRANSPORT FILL

Per the transport cost model, the utilization factors of the transport rings range from about 15 percent to about 95 percent. (EXH 2, Transport Module, pp. 6-71). Based on the testimony of witness Cox concerning the cut-over of transport plant, these utilization factors appear to be reasonable. Concerning whether or not Sprint will have theoretically high fill factors, witness Cox responds that "[w]ith certain sections of Sprint-Florida being rural it does not have sufficient traffic to maintain a high utilization factor. This is in large part due to the nature of

transmission capacity." He continues by providing an example of migrating from an OC-3 system to an OC-12 system, where at cutover, one would have a utilization rate of less than 25 percent. (TR 169)

### THEORETICAL UTILIZATION FACTORS

In various interrogatory responses, Sprint indicates that the lead time for adding capacity ranges from 6 months for transport electronics and switching to 12 months for cable and digital loop carriers. (EXH 10 p. 90) Depending on the type of equipment and growth rate, capacity is expanded when the current network reached 80 to 90 percent capacity. (EXH 10, p. 91)

### FLORIDA DIGITAL NETWORK'S POSITION

FDN advocates in its brief (and KMC concurs) use of a fill rate of 85 percent or higher for Sprint. (FDN BR at 17). FDN did not provide any testimony concerning this issue, but in its brief quoted the Florida USF Order (Order No. PSC-99-0068-FOF-TP; Docket No. 980696-TP) in which the Commission ordered that 1.5 pairs per residential unit be assumed. (FDN BR at 19, quoting Order No. PSC-99-0068-FOF-TP). FDN also believes that "Sprint is not basing its fill factors on a 'reasonable projection' of the usage of the element in the future 'most efficient' network, but instead is basing it on the actual current usage of its embedded network." (FDN BR at 18)

In the BellSouth Telecommunications, Inc. (BellSouth) track of this docket (Docket No. 990649A-TP), it was determined that BellSouth's feeder cable inputs resulting in an effective fill of approximately 74 percent were reasonable. The Commission also found that BellSouth's distribution fill factors, resulting in utilizations of 47 percent, to be reasonable. (Order No. PSC-01-1181-FOF-TP, p. 202)

Concerning distribution cable, the Commission agreed with BellSouth's proposal of "2 pairs per household" for residential customers and using the "actual number of lines" for businesses. (Order No. PSC-01-1181-FOF-TP, p. 202)

When asked to explain the difference in BellSouth's approved feeder fill of 74 percent and Sprint's which is around 50 percent, Sprint witness Dickerson replies that he believes that the trend is for rural areas to have lower fill than urban areas due to slower growth. He also said that BellSouth's customers are in more urban areas than Sprint's and would therefore probably have more growth. He continued by saying that he did not think that Sprint could manage its network, for both ALEC and retail customers, with a three day turn around, with a fill of 74 percent over the life of the cable. (EXH 14, pp. 14-16)

### CONCLUSION

Staff agrees with Sprint that when considering the placing of plant and the resulting fill, one must assess the cost/benefit relationship. Staff agrees that a company must consider future needs, the availability of capacity only in certain sizes, and the lead time for adding new facilities when it determines how to lay plant.

Staff agrees with the distribution fill being set at 100 percent, with two lines per household. This is more effective than adding an additional line when a household requests a second line.

Concerning FDN's position that presumably all fill factors should be at least 85 percent, there is nothing in the record to support this position, other than that Sprint considers adding capacity to its network when 85 percent actual fill is attained.

Due to these considerations and the fact that Sprint serves an area that is more rural than BellSouth, staff believes that BellSouth's ordered fill of 74 percent should serve as the maximum rate for Sprint's fill factors. Understanding that Sprint's customers are more rural coupled with the lack of record evidence proposing another fill rate, staff believes that Sprint's fill in the model should be set at its SLCM fill of 59.17 percent.

Therefore, staff recommends that the appropriate assumptions and inputs for fill factors in the forward-looking UNE cost studies should be the fills filed by Sprint.

Issue 7(h)

**ISSUE 7(h)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(h) manholes;

**<u>RECOMMENDATION</u>**: Staff believes the assumptions and inputs for manholes proposed by Sprint are appropriate and recommends that they be used in conjunction with staff's recommended changes in all other applicable issues. (Cater)

## POSITION OF THE PARTIES

**<u>SPRINT</u>**: Sprint-Florida's Florida-specific material and labor costs and manhole/handhole spacing was used.

**FDN**: No position at this time.

KMC: No position.

**STAFF ANALYSIS**: In explaining the development of Sprint's cost model inputs manholes/handholes, Sprint witness Dickerson states that for manholes, material and labor costs and sharing inputs were set conservatively. Sprint's sharing percentages were set at levels higher than Sprint's actual experience, allowing for future increases in structure sharing. For conduit, due to the fact that the model does not place excess conduit that could be shared with other parties, the sharing input is set at 100 percent. (TR 76)

Sprint's Cost Model's Loop Documentation provides the following information about manholes:

- The costs are based on the cost of opening and closing the ground necessary to place the manhole systems.
- Due to increased sharing opportunities as customer density increases, the structure sharing percentages vary by density zones.
- Costs and frequency of use is based on actual placement activities by Sprint and its contractor.

> • Manholes are sized based on the required number of ducts. (EXH 2, Loop Module, pp. 24-25)

### CONCLUSION

Sprint is the only party that either provided testimony or took a position on this issue. Based on the limited record in this issue, staff believes the assumptions and inputs for manholes proposed by Sprint are appropriate and recommends that they be used in conjunction with staff's recommended changes in all other applicable issues.

lssue 7(i)&(j)

**ISSUE 7(i) and (j)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

- (i) fiber cable (material and placement costs);
- (j) copper cable (material and placement costs);

**RECOMMENDATION:** The appropriate assumptions and inputs for fiber and copper cable material and placement costs to be used in the forward-looking recurring cost studies considered in this proceeding are those proposed by Sprint. Additionally, these assumptions and inputs should incorporate recommended adjustments in all other applicable issues. **(P. Lee)** 

### POSITION OF THE PARTIES

**SPRINT**: The material cost inputs for fiber and copper cable were developed using Sprint-Florida's current vendor costs and an analysis of Sprint-Florida's cable installations for 1998-2000.

## <u>FDN</u> :

<u>Issue 7(i)</u>: If the Commission declines to adjust the fill factors for dark fiber, then the Commission must reduce the material and placement costs for fiber cable in the recurring loop and interoffice facility (IOF) cost studies to preclude double recovery for Sprint. Also Sprint weighs its feeder plant mix too much towards higher cost underground and buried cable.

<u>Issue 7(j)</u>: Sprint's copper cable costs are overstated because Sprint assumes that there will be two distribution pairs per residence both fully wired back to the SAI.

 $\underline{\text{KMC}}$ : KMC concurs with the position and analysis of Florida Digital Network (FDN).

**STAFF ANALYSIS**: Issues 7(i) and 7(j) address the appropriate assumptions and inputs to be used in Sprint's forward-looking UNE cost studies for fiber and copper material and placement costs.

These issues are very similar; therefore, staff is addressing the issues together.

### PARTIES' ARGUMENTS

## <u>Sprint</u>

Fiber and copper cable are utilized as underground, buried, and aerial. The Sprint Loop Cost Model (SLCM) inputs include the costs for material, exempt and other material, tax, placement, splicing, and engineering. (Dickerson TR 77; EXH 10, pp. 87, 231; EXH 2, KWD-2, Volume 1, III.B., Loop Module, pp. 7-11)

Sprint's witness Dickerson explains that the SLCM inputs for fiber and copper cable costs are developed using Sprint's current vendor cost for purchasing cable and adding Florida-specific sales tax. (TR 77) Cable costs are developed on a per foot basis and are a function of material and labor. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 8) Witness Dickerson explains that cable cost inputs are based on an analysis of Sprint's cable installations in Florida for 1998-2000 from the Project Administration and Costing System (PACS). (TR 77) The costs include exempt and other material, such as splice enclosures and cable mounting hardware, overhead and cable placement, splicing and engineering costs. (TR 77; EXH 10, pp. 330, 340-342, 348) The overhead amount accounts for indirect support costs associated with activities that are not directly related to engineering or are necessary components of outside construction but plant construction. (EXH 10, pp. 338-339)

## <u>Material Costs</u>

One major determinant in the cost of unbundled loops is material costs, as they are the basic components that make up the network. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 3, pp. 5, 7) Sprint uses current vendor material costs for cable, thus reflecting economies of scale. (Dickerson TR 77; EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, pp. 7-8) The SLCM methodology explains: Sprint's company specific inputs reflect the realities of providing local service in its operating territory. Sprint's recent experience with actual purchase, installation, and ongoing maintenance of telephone plant equipment provides the best information for predicting the forward-looking UNE costs within Sprint's service territory. The material inputs are based upon current vendor prices for material and equipment plus Sprintspecific labor costs for engineering, plant supervision, and installation. State specific sales tax is also included in the material calculations. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 5 of 39)

According to the model documentation, per foot costs are developed for standard copper and fiber cables. Additionally, Sprint's copper cable material costs reflect use of 24- and 26gauge cables. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 6 of 39) The SLCM documentation explains that 24-gauge aerial and buried copper cables of 3000 pairs and above are not standard production sizes, so 26-gauge cable is used. For underground cable, Sprint uses 26- gauge cable for 2100 pairs and above. The standard sizes of fiber cables range from 12 to 288 fibers. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 6 of 39)

Sprint applies six factors to its material costs for an engineered, furnished, and installed (EF&I) cost. These include costs for exempt material amount, tax, placement, splicing, engineering, and overheads. (EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 4-7) A discussion of loading factors is found in Issue 7(s). The SLCM documentation explains that the placement additive is restrictive to the placement of aerial cable onto the support strand, the rodding of the ducts, and the pulling of underground cable into the duct. Buried cable placement is included with the structure costs. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 6 of 39)

## <u>Placement Costs</u>

In addition to material costs, Sprint notes that major determinants of the cost for unbundled loops include customer

density, distance from the central office, terrain, weather, and local market conditions. (EXH 2, KWD-2, Volume 1, Loop Module, III.B., Section 3, pp. 3-5) These factors are included in cable placement costs.

Placement costs account for the placing of the cable on a pole line, in a trench, or in a conduit. (EXH 2, KWD-2, Volume 1, Loop Module, III.B., Section 4.2, p. 7) The costs are developed on a per foot basis and are based on the relationship of total expenditures in PACS related to placing the given type of cable divided by the total number of feet of that cable placed. (EXH 10, pp. 343-344)

### Customer Density

According to the SLCM documentation, customer density is the single largest factor impacting the cost of local loops. The density of customers impacts loop costs in an inverse manner; that is, the higher the customer density, the lower the cost of the local loop. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 3.1, p. 3) Customer density ultimately determines the number of customers or loops there are over which to spread the cost of digging a trench, or placing conduit or placing poles. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 3.1, pp. 3-4)

## Structure Inputs

Structure type, or cable type, also has a major impact on the cost of loops. Witness Dickerson explains that structure costs include the type of construction activity associated with the given cable (e.g., trench and backfill, cut and restore sod, plow and bore cable). (TR 73) Florida-specific structure cost inputs are developed based on Sprint's analysis of the entire 1999 and 2000 contractor construction costs and activities as tracked in the Network Construction Activity Program (NETCAP). (Dickerson TR 73) Witness Dickerson asserts that this ". . provides the most current, verifiable and pertinent data available for predicting the forward-looking costs of construction in the same markets from which the data was drawn." (TR 73-74) Buried cable placement is accounted for in the buried structure inputs in SLCM. (EXH 10, p. 357)

Additionally, Sprint's structure inputs vary by density zone to recognize the difference in work activities incurred between rural and urban areas. "For example, more sidewalks and streets must be dealt with in an urban area compared to a rural area. The more obstacles encountered when installing cable, the greater the cost." (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 3.1, p. 6) The assumptions and inputs for structure costs are discussed in more detail in Issue 7(f).

### <u>Distance</u>

Distance is another factor impacting loop costs. Sprint asserts that loop costs increase directly as the distance from the central office increases. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 3.2, p. 4) The model documentation explains:

This relationship results from the obvious need to place more cable, trenches, conduit and or aerial pole lines as the distance or length of the loop increases. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 3.2, p. 6)

### <u>Terrain</u>

The model documentation explains that the type of terrain in which cable is placed impacts both the cost of the initial cable placement and the maintenance of the cable. The cost of buried and underground (below-ground) cable construction increases as the presence and hardness of rock increases. Moreover, factors such as the water table and trees affect both the initial construction cost of loops and subsequent maintenance expense. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 3.3, p. 4)

### <u>Weather</u>

Weather affects the maintenance costs and therefore is significant in deciding the type of cable being placed (buried, aerial, or underground). (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 3.4, pp. 4-5)

### Local Market Conditions

The loop model documentation notes that local zoning laws requiring the placement of buried or underground plant, screening and landscaping around Serving Area Interface (SAI) and Digital Loop Carrier (DLC) sites, construction permits and restrictions, heavy presence of concrete and asphalt, traffic flows, and local labor costs, all impact the construction and maintenance costs of loop plant and vary between locations. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 3.5, p. 5)

A summary of Sprint's material and placement cost inputs for each size and type of copper and fiber cable is shown below in Tables 7(i)-1 through 7(i)-9. The "Total Cost" dollar amount is the total material cost input, inclusive of additive loadings.

	TABLE 7(i)-1: Underground Fiber Cable							
Size	Total Cost	Material Cost	Tax	Splicing Costs	Eng., Plcg., EM, OH Costs			
	(\$)	(\$)	(7.0%)	(.0022)	(\$)			
288	10.16	5.37	0.38	0.64	3.77			
144	7.03	2.74	0.19	0.32	3.77			
96	5.97	1.86	0.13	0.21	3.77			
72	5.44	1.41	0.10	0.16	3.77			
60	5.20	1.21	0.08	0.13	3.77			
48	4.90	0.95	0.07	0.11	3.77			
36	4.68	0.78	0.05	0.08	3.77			
24	4.45	0.58	0.04	0.05	3.77			
18	4.29	0.45	0.03	0.04	3.77			
12	4.21	0.38	0.03	0.03	3.77			

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 3, 7.

	TABLE 7(i)-2: Buried Fiber Cable						
Size	Total Cost	Material Cost	Tax	Splicing Costs	Eng., Plcg., EM, OH Costs		
	(\$)	(\$)	(7.0%)	(.0058)	(\$)		
288	11.33	5.70	0.40	1.68	3.55		
144	7.57	2.97	0.21	0.84	3.55		
96	6.30	2.04	0.14	0.56	3.55		
72	5.64	1.56	0.11	0.42	3.55		
60	5.35	1.36	0.09	0.35	3.55		
48	5.00	1.09	0.08	0.28	3.55		
36	4.72	0.89	0.06	0.21	3.55		
24	4.42	0.69	0.05	0.14	3.55		
18	4.25	0.56	0.04	0.10	3.55		
12	4.13	0.48	0.03	0.07	3.55		

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 3, 7.

	TABLE 7(i)-3: Aerial Fiber Cable							
Size	Total Cost	Material Cost	Tax	Splicing Costs	Eng., Plcg., EM, OH Costs			
	(\$)	(\$)	(7.0%)	(.0044)	(\$)			
288	8.82	5.37	0.38	1.26	1.81			
144	5.38	2.74	0.19	0.63	1.81			
96	4.22	1.86	0.13	0.42	1.81			
72	3.63	1.41	0.10	0.32	1.81			
60	3.38	1.21	0.08	0.26	1.81			
48	3.04	0.95	0.07	0.21	1.81			
36	2.80	0.78	0.05	0.16	1.81			
24	2.54	0.58	0.04	0.11	1.81			
18	2.38	0.45	0.03	0.08	1.81			
12	2.28	0.38	0.03	0.05	1.81			

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 3, 7.

	TABLE	7(i)-4: Underg	round Copper	r - 26 Gauge	
Size	Total Cost	Material Cost	Tax	Splicing Costs	Eng., Plcg., EM, OH Costs
	(\$)	(\$)	(7.0%)	(.0047)	(\$)
4200	54.37	20.61	1.44	19.59	12.72
3600	48.43	17.68	1.24	16.79	12.72
3000	42.50	14.75	1.03	13.99	12.72
2400	37.51	12.71	0.89	11.19	12.72
2100	34.31	11.02	0.77	9.80	12.72
1800	31.89	10.07	0.70	8.40	12.72
1200	24.52	5.79	0.41	5.60	12.72
900	21.73	4.50	0.31	4.20	12.72
600	18.97	3.22	0.23	2.80	12.72
400	17.09	2.34	0.16	1.87	12.72
300	15.80	1.57	0.11	1.40	12.72
200	14.81	1.08	0.08	0.93	12.72
100	13.93	0.69	0.05	0.47	12.72
50	13.42	0.44	0.03	0.23	12.72
В25	13.08	0.23	0.02	0.12	12.72
18	13.01	0.19	0.01	0.08	12.72
12	12.95	0.16	0.01	0.06	12.72

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 3, 5.

	TABLE 7(i)-5: Buried Copper - 26 Gauge						
Size	Total Cost	Material Cost	Tax	Splicing Costs	Eng., Plcg., EM, OH Costs		
	(\$)	(\$)	(7.0응)	(.0028)	(\$)		
4200	36.51	20.61	1.44	11.96	2.49		
3600	31.66	17.68	1.24	10.25	2.49		
3000	26.82	14.75	1.03	8.54	2.49		
2400	22.93	12.71	0.89	6.83	2.49		
2100	20.27	11.02	0.77	5.98	2.49		
1800	18.39	10.07	0.70	5.12	2.49		
1200	12.11	5.79	0.41	3.42	2.49		
900	9.87	4.50	0.31	2.56	2.49		
600	7.65	3.22	0.23	1.71	2.49		
400	6.14	2.34	0.16	1.14	2.49		
300	5.03	1.57	0.11	0.85	2.49		
200	4.22	1.08	0.08	0.57	2.49		
100	3.52	0.69	0.05	0.28	2.49		
50	3.11	0.44	0.03	0.14	2.49		
25	2.81	0.23	0.02	0.07	2.49		
18	2.75	0.19	0.01	0.05	2.49		
12	2.70	0.16	0.01	0.03	2.49		

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 3, 6.

Size	Total	Material	Tax	Splicing	Eng., Plcg.,
	Cost	Cost		Costs	EM, OH Costs
	(\$)	(\$)	(7.0%)	(.0056)	(\$)
4200	48.76	20.61	1.44	23.50	3.20
3600	42.26	17.68	1.24	20.14	3.20
3000	35.77	14.75	1.03	16.79	3.20
2400	30.23	12.71	0.89	13.43	3.20
2100	26.75	11.02	0.77	11.75	3.20
1800	24.05	10.07	0.70	10.07	3.20
1200	16.11	5.79	0.41	6.71	3.20
900	13.05	4.50	0.31	5.04	3.20
600	10.00	3.22	0.23	3.36	3.20
400	7.94	2.34	0.16	2.24	3.20
300	6.56	1.57	0.11	1.68	3.20
200	5.48	1.08	0.08	1.12	3.20
100	4.50	0.69	0.05	0.56	3.20
50	3.95	0.44	0.03	0.28	3.20
25	3.58	0.23	0.02	0.14	3.20
18	3.51	0.19	0.01	0.10	3.20
12	3.44	0.16	0.01	0.07	3.20

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 3-4.

	TABLE 7(i)-7: Underground Copper - 24 Gauge							
Size	Total Cost	Material Cost	Tax	Splicing Costs	Eng., Plcg., EM, OH Costs			
	(\$)	(\$)	(7.0%)	(.0047)	(\$)			
4200	54.37	20.61	1.44	19.59	12.72			
3600	48.43	17.68	1.24	16.79	12.72			
3000	42.50	14.75	1.03	13.99	12.72			
2400	42.79	17.64	1.23	11.19	12.72			
2100	39.26	15.65	1.10	9.80	12.72			
1800	35.58	13.52	0.95	8.40	12.72			
1200	27.55	8.63	0.60	5.60	12.72			
900	23.89	6.51	0.46	4.20	12.72			
600	20.15	4.33	0.30	2.80	12.72			
400	17.90	3.10	0.22	1.87	12.72			
300	16.60	2.32	0.16	1.40	12.72			
200	15.31	1.54	0.11	0.93	12.72			
100	14.08	0.83	0.06	0.47	12.72			
50	13.46	0.47	0.03	0.23	12.72			
25	13.15	0.29	0.02	0.12	12.72			
18	13.02	0.20	0.01	0.08	12.72			
12	12.98	0.19	0.01	0.06	12.72			

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 3, 5.

	TABLE 7(i)-8: Buried Copper ~ 24 Gauge						
Size	Total Cost	Material Cost	Tax	Splicing Costs	Eng., Plcg., EM, OH Costs		
	(\$)	(\$)	(7.0%)	(.0028)	(\$)		
4200	36.51	20.61	1.44	11.96	2.49		
3600	31.66	17.68	1.24	10.25	2.49		
3000	26.82	14.75	1.03	8.54	2.49		
2400	28.20	17.64	1.23	6.83	2.49		
2100	25.22	15.65	1.10	5.98	2.49		
1800	22.08	13.52	0.95	5.12	2.49		
1200	15.15	8.63	0.60	3.42	2.49		
900	12.03	6.51	0.46	2.56	2.49		
600	8.83	4.33	0.30	1.71	2.49		
400	6.95	3.10	0.22	1.14	2.49		
300	5.83	2.32	0.16	0.85	2.49		
200	4.72	1.54	0.11	0.57	2.49		
100	3.67	0.83	0.06	0.28	2.49		
50	3.14	0.47	0.03	0.14	2.49		
25	2.87	0.29	0.02	0.07	2.49		
18	2.76	0.20	0.01	0.05	2.49		
12	2.73	0.19	0.01	0.03	2.49		

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 3, 6.

	TABLE 7(i)-9: Aerial Copper - 24 Gauge							
Size	Total Cost	Material Cost	Tax	Splicing Costs	Eng., Plcg., EM, OH Costs			
	(\$)	(\$)	(7.0%)	(.0056)	(\$)			
4200	48.76	20.61	1.44	23.50	3.20			
3600	42.26	17.68	1.24	20.14	3.20			
3000	35.77	14.75	1.03	16.79	3.20			
2400	35.50	17.64	1.23	13.43	3.20			
2100	31.69	15.65	1.10	11.75	3.20			
1800	27.74	13.52	0.95	10.07	3.20			
1200	19.15	8.63	0.60	6.71	3.20			
900	15.21	6.51	0.46	5.04	3.20			
600	11.19	4.33	0.30	3.36	3.20			
400	8.75	3.10	0.22	2.24	3.20			
300	7.36	2.32	0.16	1.68	3.20			
200	5.97	1.54	0.11	1.12	3.20			
100	4.65	0.83	0.06	0.56	3.20			
50	3.99	0.47	0.03	0.28	3.20			
25	3.65	0.29	0.02	0.14	3.20			
18	3.51	0.20	0.01	0.10	3.20			
12	3.47	0.19	0.01	0.07	3.20			

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 3-4.

### FDN and KMC

In its post-hearing brief, FDN argues that Sprint's dark fiber fill factors are inappropriate and lead to double recovery of Sprint's costs. If this is not corrected in Issue 7(g), FDN recommends that Sprint's material and placement costs for fiber loop and interoffice fiber be reduced to reflect the fact that some capacity costs are being recovered in the dark fiber rates. (FDN BR at 23-24) This position is concurred with by KMC. (KMC BR at 8)

support for its position, FDN asserts that witness As Dickerson testifies that the available dark fiber in Sprint's network is the same fiber that is included as spare in Sprint's loop and interoffice facility cost calculation. (EXH 14, pp. 66-69) Further, FDN notes that witness Dickerson states that Sprint does not consider dark fiber demand in its loop and interoffice facility calculations for cost recovery purposes. (EXH 14, pp. 66-67) FDN concludes that Sprint has already attributed the capacity cost of those facilities, and the associated structure and placement costs, to the cost of loops and interoffice facilities. (FDN BR at 22) This results in a double-recovery of the same capacity costs in other UNEs, under the notion of a fill factor. (FDN BR at 22) FDN argues that the capacity cost of "spare" fiber should not be included in the loop and transport studies and then again in the dark fiber cost study. FDN alleges that Sprint has inadequate justification for its dark fiber utilization factor. (EXH 14, p. 67; FDN BR at 22)

## Sprint's Response

Sprint contends that FDN's allegations are unsupported by any record evidence. (Sprint BR at 36-37) Sprint asserts that the fill factor for fiber represents lit fiber cables and not dark fiber. Sprint opines there is no double recovery. (BR at 37)

Sprint argues that its cost studies reflect the Florida plant mix. (EXH 11, p. 32) Sprint asserts that new distribution cables are placed below ground in accordance with Rule 25-4.008, Florida Administrative Code. Notwithstanding this, storms and hurricanes make it more efficient to place buried and underground plant. For this reason, Sprint's plant mix reflects a large amount of buried and underground plant. (EXH 11, pp. 32-33) Sprint concludes that "FDN offers no evidence that Sprint-Florida's forward-looking plant mix should be more aerial than buried or underground, nor does FDN offer evidence that aerial plant is the least cost most efficient type of plant for Sprint-Florida's service territory." (BR at 37)

### ANALYSIS

Staff is troubled that no party other than Sprint filed testimony regarding copper and fiber cable material and placement

cost inputs. Staff notes that FDN disagrees with Sprint's fill factors for dark fiber, feeder plant mix, and the assumption of two distribution pairs per residence. (FDN BR at 17-23) KMC also concurs with this disagreement. (KMC BR at 8)

FDN's dispute with Sprint's assumed number of distribution pairs is addressed in Issue 7(g) and, therefore, will not be addressed here. Staff discussions of dark fiber loop and interoffice facilities are in Issue 7(s).

FDN argues that the material and placement costs of dark fiber are included in Sprint's inputs for loop and interoffice facility calculations; however, the demand is not. (FDN BR at 22-23) FDN alleges that Sprint already attributes the capacity cost of dark fiber loop facilities, and the structure and placement cost for those facilities, to the cost of loops and interoffice facilities. FDN therefore concludes that Sprint's proposed charges for dark fiber will result in a double recovery of the same capacity costs as included in studies for other UNEs. (FDN BR at 23) FDN argues that if Sprint's fill factor for dark fiber is not adjusted to 100 percent, there should be no capacity cost for dark fiber. (FDN BR If the fill factors for dark fiber are not adjusted, at 24) Sprint's material and placement costs for fiber loop and interoffice facilities should be reduced to reflect that some capacity costs are being recovered in the dark fiber rates. (FDN BR at 24)

Staff believes FDN's arguments relate specifically to fill factors and are addressed in other issues. Staff notes that adjusting fill factors will effect fiber loop and interoffice facility costs. However, fill factors do not effect the material and placement cost inputs of cables. Moreover, FDN does not offer a specific adjustment to the material and placement costs, but merely asserts one should be made. Staff disagrees with FDN's arguments that cable material and placement cost inputs should be reduced.

Even though the testimony presented is limited to that of Sprint, it is nevertheless incumbent upon staff to determine the reasonableness of Sprint's inputs. Staff believes Order No. PSC-99-0068-FOF-TP (Universal Service Order), issued January 7, 1999, in Docket No. 980696-TP regarding the determination of the cost of basic local telecommunications service and Order No. PSC-01-1181-FOF-TP (BellSouth Phase II Order), issued May 25, 2001, in Docket No. 990649A-TP, can offer some guidance in analyzing Sprint's cable cost inputs. Staff does not believe the inputs adopted in either referenced order are appropriate to use in this instant proceeding but should only serve as a reference source in staff's analysis. The Universal Service proceeding related to a legislative mandate and the inputs are several years old. Regardless, the adopted inputs were Sprint-specific and can serve as a check for reasonableness of Sprint's proposed inputs in the instant docket. Tables 7(i)-10 through 7(i)-18 compare Sprint's material cost inputs and total EF&I costs with those approved by the Universal Service Order.

	TAB	LE 7(i)-10: Unc	lerground Fiber Cabl	Le	
	Sp:	rint	Universal Service Order		
Size	Total Cost	Material Cost	Total Cost	Material Cost	
288	\$10.16	\$5.37	\$15.01	\$7.01	
144	\$7.03	\$2.74	\$9.41	\$3.78	
96	\$5.97	\$1.86	\$7.51	\$2.63	
72	\$5.44	\$1.41	\$6.55	\$1.95	
60	\$5.20	\$1.21	\$6.07	\$1.66	
48	\$4.90	\$0.95	\$5.51	\$1.39	
36	\$4.68	\$0.78	\$4.91	\$1.02	
24	\$4.45	\$0.58	\$4.58	\$0.83	
18	\$4.29	\$0.45	\$4.43	\$0.75	
12	\$4.21	\$0.38	\$4.23	\$0.63	

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 7; Order No. PSC-99-0068-FOF-TP, pp. 154, 162.

	Sp	rint	Universal	Service Order
Size	Total Cost	Material Cost	Total Cost	Material Cost
288	\$11.33	\$5.70	\$14.26	\$7.01
144	\$7.57	\$2.97	\$8.28	\$3.78
96	\$6.30	\$2.04	\$6.23	\$2.63
72	\$5.64	\$1.56	\$5.16	NA
60	\$5.35	\$1.36	\$4.64	\$1.66
48	\$5.00	\$1.09	\$4.07	\$1.39
36	\$4.72	\$0.89	\$3.42	\$1.02
24	\$4.42	\$0.69	\$3.06	\$0.83
18	\$4.25	\$0.56	\$2.90	\$0.75
12	\$4.13	\$0.48	\$2.68	\$0.63

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 7; Order No. PSC-99-0068-FOF-TP, pp. 155, 163.

	TABLE 7(i)-12: Aerial Fiber Cable							
	Sp	rint	Universal Service Order					
Size	Total Cost	Material Cost	Total Cost	Material Cost				
288	\$8.82	\$2.37	\$13.90	\$7.68				
144	\$5.38	\$2.74	\$7.82	\$3.78				
96	\$4.22	\$1.86	\$5.96	\$2.57				
72	\$3.63	\$1.41	\$5.33	\$2.12				
60	\$3.38	\$1.21	\$4.68	\$1.66				
48	\$3.04	\$0.95	\$4.15	\$1.39				
36	\$2.80	\$0.78	\$3.70	\$1.12				
24	\$2.54	\$0.58	\$3.22	\$0.79				
18	\$2.38	\$0.45	\$3.03	\$0.67				
12	\$2.28	\$0.38	\$2.83	\$0.54				

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 7; Order No. PSC-99-0068-FOF-TP, pp. 155, 164.

Sprint			Universal Service Order		
Size	Total Cost	Material Cost	Total Cost	Material Cost	
1200	\$54.37	\$20.61	\$61.69	\$33.99	
3600	\$48.43	\$17.68	\$50.61	\$27.28	
3000	\$42.50	\$14.75	\$43.65	\$23.59	
2400	\$37.51	\$12.71	\$26.53	\$12.52	
2100	\$34.31	\$11.02	\$23.32	\$10.84	
1800	\$31.89	\$10.07	\$20.05	\$9.15	
1200	\$24.52	\$5.79	\$11.71	\$4.46	
900	\$21.73	\$4.50	\$10.51	\$4.27	
600	\$18.97	\$3.22	\$7.70	\$2.88	
400	\$17.09	\$2.34	\$7.69	\$1.95	
300	\$15.80	\$1.57	\$6.48	\$1.64	
200	\$14.81	\$1.08	\$5.06	\$1.20	
100	\$13.93	\$0.69	\$3.82	\$0.54	
50	\$13.42	\$0.44	\$3.40	\$0.32	
25	\$13.08	\$0.23	\$3.18	\$0.19	
18	\$13.01	\$0.19	\$2.78	\$0.23	
12	\$12.95	\$0.16	\$2.51	\$0.15	

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 5; Order No. PSC-99-0068-FOF-TP, pp. 159, 168.

Size	Sprint		Universal Service Order	
	Total Cost	Material Cost	Total Cost	Material Cost
200	\$36.51	\$20.61	\$53.39	\$33.99
3600	\$31.66	\$17.68	\$43.21	\$27.28
3000	\$26.82	\$14.75	\$37.45	\$23.59
2400	\$22.93	\$12.71	\$20.86	\$12.52
2100	\$20.27	\$11.02	\$18.53	\$10.84
800	\$18.39	\$10.07	\$15.83	\$9.15
200	\$12.11	\$5.79	\$8.80	\$4.46
900	\$9.87	\$4.50	\$8.24	\$4.27
500	\$7.65	\$3.22	\$6.21	\$2.88
400	\$6.14	\$2.34	\$5.42	\$1.95
300	\$5.03	\$1.57	\$4.61	\$1.64
200	\$4.22	\$1.08	\$4.07	\$1.20
100	\$3.52	\$0.69	\$2.85	\$0.54
50	\$3.11	\$0.44	\$2.44	\$0.32
25	\$2.81	\$0.23	\$2.22	\$0.19
18	\$2.75	\$0.19	\$1.94	\$0.23
12	\$2.70	\$0.16	\$1.70	\$0.15

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 6; Order No. PSC-99-0068-FOF-TP, pp. 160, 169.

Size	Sprint		Universal Service Order	
	Total Cost	Material Cost	Total Cost	Material Cost
200	\$48.76	\$20.61	\$45.14	\$33.99
3600	\$42.26	\$17.68	\$36.81	\$27.28
3000	\$35.77	\$14.75	\$32.03	\$23.59
2400	\$30.23	\$12.71	\$18.54	\$12.52
2100	\$26.75	\$11.02	\$16.72	\$10.84
L800	\$24.05	\$10.07	\$14.47	\$9.15
200	\$16.11	\$5.79	\$8.75	\$4.46
00	\$13.05	\$4.50	\$8.18	\$4.27
500	\$10.00	\$3.22	\$6.55	\$2.88
400	\$7.94	\$2.34	\$5.07	\$1.95
00	\$6.56	\$1.57	\$4.27	\$1.64
200	\$5.48	\$1.08	\$3.87	\$1.20
L00	\$4.50	\$0.69	\$2.79	\$0.54
50	\$3.95	\$0.44	\$2.42	\$0.32
25	\$3.58	\$0.23	\$2.23	\$0.19
18	\$3.51	\$0.19	\$1.86	\$0.23
12	\$3.44	\$0.16	\$1.62	\$0.15

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 4; Order No. PSC-99-0068-FOF-TP, pp. 161, 170.

Size	Sprint		Universal Service Order	
	Total Cost	Material Cost	Total Cost	Material Cost
200	\$54.37	\$20.61	\$61.69	\$33.99
600	\$48.43	\$17.68	\$50.61	\$27.28
000	\$42.50	\$14.75	\$43.65	\$23.59
400	\$42.79	\$17.64	\$31.51	\$16.14
100	\$39.26	\$15.65	\$27.68	\$14.01
800	\$35.58	\$13.52	\$23.80	\$11.87
200	\$27.55	\$8.63	\$14.21	\$6.27
00	\$23.89	\$6.51	\$12.39	\$5.63
00	\$20.15	\$4.33	\$8.95	\$3.79
00	\$17.90	\$3.10	\$8.51	\$2.55
00	\$16.60	\$2.32	\$7.10	\$2.09
00	\$15.31	\$1.54	\$5.47	\$1.50
00	\$14.08	\$0.83	\$4.03	\$0.69
50	\$13.46	\$0.47	\$3.51	\$0.40
25	\$13.15	\$0.29	\$3.23	\$0.23
18	\$13.02	\$0.20	\$2.83	\$0.26
12	\$12.98	\$0.19	\$2.54	\$0.17

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 5; Order No. PSC-99-0068-FOF-TP, pp. 156, 164-165.

Size	Sprint		Universal Service Order	
	Total Cost	Material Cost	Total Cost	Material Cost
200	\$36.51	\$20.61	\$53.39	\$33.99
3600	\$31.66	\$17.68	\$43.21	\$27.28
3000	\$26.82	\$14.75	\$37.45	\$23.59
400	\$28.20	\$17.64	\$26.18	\$16.14
2100	\$25.22	\$15.65	\$23.18	\$14.01
800	\$22.08	\$13.52	\$19.83	\$11.87
200	\$15.15	\$8.63	\$11.46	\$6.27
900	\$12.03	\$6.51	\$10.24	\$5.63
500	\$8.83	\$4.33	\$7.55	\$3.79
400	\$6.95	\$3.10	\$6.30	\$2.55
300	\$5.83	\$2.32	\$5.27	\$2.09
200	\$4.72	\$1.54	\$4.51	\$1.50
100	\$3.67	\$0.83	\$3.07	\$0.69
50	\$3.14	\$0.47	\$2.55	\$0.40
25	\$2.87	\$0.29	\$2.27	\$0.23
18	\$2.76	\$0.20	\$1.98	\$0.26
12	\$2.73	\$0.19	\$1.73	\$0.17

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 6; Order No. PSC-99-0068-FOF-TP, pp. 157, 166.

Size	Sprint		Universal Service Order	
	Total Cost	Material Cost	Total Cost	Material Cost
1200	\$48.76	\$20.61	\$45.14	\$33.99
3600	\$42.26	\$17.68	\$36.81	\$27.28
3000	\$35.77	\$14.75	\$32.03	\$23.59
2400	\$35.50	\$17.64	\$22.82	\$16.14
2100	\$31.69	\$15.65	\$20.47	\$14.01
1800	\$27.74	\$13.52	\$17.68	\$11.87
L200	\$19.15	\$8.63	\$10.89	\$6.27
900	\$15.21	\$6.51	\$9.79	\$5.63
600	\$11.19	\$4.33	\$7.63	\$3.79
400	\$8.75	\$3.10	\$5.78	\$2.55
300	\$7.36	\$2.32	\$4.80	\$2.09
200	\$5.97	\$1.54	\$4.23	\$1.50
100	\$4.65	\$0.83	\$2.97	\$0.69
50	\$3.99	\$0.47	\$2.51	\$0.40
25	\$3.65	\$0.29	\$2.28	\$0.23
18	\$3.51	\$0.20	\$1.90	\$0.26
12	\$3.47	\$0.19	\$1.64	\$0.17

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 4; Order No. PSC-99-0068-FOF-TP, pp. 158, 167.

Sprint witness Dickerson explains that the SLCM fiber and copper cable material cost inputs are developed on a cost per foot basis using Sprint's current vendor costs. (TR 77) As shown above, Sprint's fiber material costs are generally lower for each size and type of cable than those adopted by Order No. PSC-99-0068-FOF-TP. For copper cables, Sprint's proposed material costs are generally lower for the larger sized cables, 3000-pair and above, and range from 1.5 percent to 6 percent higher for cable sizes below 3000pair. The highest increase is noted for the smallest cable sizes.

Staff notes that Sprint's proposed copper cable material inputs do not vary by cable type. In other words, the per foot cost for each size of aerial, buried, and underground 26-gauge copper cable is the same. Similarly, the per foot cost for each size of aerial, buried, and underground 24-gauge copper cable is the same. For fiber cables, the material cost per foot for each size of aerial and underground fiber cable is the same; buried fiber material cost per foot ranges from 6 percent to 21 percent higher than the similar size of aerial and underground fiber cable, with the smallest increase found on the larger sized cables.

When comparing Sprint's material costs with those approved for BellSouth in its Phase II proceeding, staff finds it interesting that Sprint's material costs are lower than BellSouth's for fiber cables less than 96 fibers. (See Order No. PSC-01-1181-FOF-TP at pp. 211-214) For copper cables, BellSouth's costs are generally lower than Sprint's. (See Order NO. PSC-01-1181-FOF-TP at pp. 214-220) Intuitively, staff believes that BellSouth can be expected to enjoy greater economies when purchasing cable. This would account for the fact that BellSouth's copper cable material costs are lower than Sprint's, but appears to be contradictory with regard to fiber cable material costs.

Sprint's total EF&I costs for aerial and underground fiber cable are generally lower than those adopted by the Universal Service Order. Buried fiber cables reflect a slight increase in larger cables to over 54 percent increase in the smallest sized cables. On the other hand, total EF&I costs for copper cables indicate a more substantial increase over those adopted in the Universal Service Order. Again, the increase is found with the smallest sized cables. The greatest increases in total EF&I costs appear in underground copper cables. For example, Sprint's EF&I costs for a 50-pair underground copper cable is almost 300 percent more than the similar cost adopted in the Universal Service Order.

Sprint explains that larger sized cables are found in urban areas; smaller sized cables are found in more rural areas. (EXH 14, p. 28) Staff believes it is then logical that the total EF&I costs will be greater in smaller sized cables.

On the other hand, Sprint's per foot material cost ranges from about 1.5 percent for a 12-pair cable to about 38 percent for a 4200-pair cable of the total EF&I costs. Splicing accounts for less than 1 percent of the total EF&I costs for 12 pairs to about 36 percent for 4200 pair. Engineering, placement, exempt and other material, and overheads range from 98 percent of the total EF&I costs for 12 pairs to 23 percent for 4200 pairs.

On balance, staff believes that Sprint's material and placement costs are reasonable.

#### CONCLUSION

In summary, the appropriate assumptions and inputs for fiber and copper cable material and placement costs to be used in the forward-looking recurring cost studies considered in this proceeding are those proposed by Sprint. Additionally, these assumptions and inputs should incorporate recommended adjustments in all other applicable issues.

lssue 7(k)

**ISSUE 7(k)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(k) drops;

**<u>RECOMMENDATION</u>**: Staff recommends that the appropriate assumptions and inputs to be used in the forward-looking recurring UNE cost studies for drops are those proposed by Sprint. (J-E Brown)

### POSITION OF THE PARTIES

**SPRINT**: The drop wire and terminal inputs reflect Sprint-Florida's current vendor material costs and applicable Florida-specific sales tax and exempt material loadings. The placement cost portion of the inputs for aerial drops and both buried terminals are based on Florida-specific labor hour costs and labor hour estimates. The placement cost for a buried drop is based on Sprint-Florida's Florida-specific contractor cost for buried drop placement.

FDN: No position at this time.

KMC: No position.

**<u>Z-TEL</u>**: No position.

**STAFF ANALYSIS**: This issue addresses what are the appropriate assumptions and inputs to be used in the forward-looking recurring UNE cost studies for drops.

### Arguments

No party other than Sprint took a position or filed testimony on this issue. Therefore, staff will be making its recommendation based on the limited testimony Sprint provided in the record and the position Sprint filed in its post-hearing brief. According to its post-hearing brief, Sprint believes that its current cost model inputs for drops are appropriate. (Sprint BR at 38-39) Sprint witness Dickerson provided a summary description of Sprint's cost model drop inputs, which is echoed in Sprint's position statement: The drop wire and terminal inputs reflect Sprint's current vendor material costs and applicable Floridaspecific sales tax and exempt material loadings. The placement cost portion of the inputs for aerial drops and both aerial and buried terminals are based on Floridaspecific labor hour costs and labor hour estimates. The placement cost for a buried drop is based on Sprint-Florida's Florida-specific contractor cost for buried drop placement. (TR 78)

A more detailed outline of Sprint's cost model inputs for drops is provided in Sprint's SLCM documents:

Aerial drop costs include the cost of the drop wire that is placed from the terminal on or near a pole, to the customer's location, terminating at the NID. Included in this cost are the attachment devices and the labor to install the drop. The aerial drop material cost is a weighted composite cost of a 2 pair 18 ½ gauge copper drop for residential customers and a 6 pair 22 gauge copper drop for business customers. These drop types are weighted using a ratio of residential and business lines to total lines in the serving territory.

The cost of aerial drops is an installed cost, which includes the material cost and the labor cost to install the cable. To determine the labor portion, average installation time and drop length were determined by an outside plant expert. A state specific loaded labor rate was then applied to the installation time to determine the installation cost per drop. The installation cost per drop is then divided by the drop length to determine a labor cost per foot. Sprint I & R Technicians generally complete the installation of aerial drops.

The aerial drop material is a weighted average cost of the 6 pair cable used for business drops and a 2 pair cable used for residential drops. These two cable types were weighted using a ratio of residential and business lines to total lines. This weighted material cost is

added to the per foot labor charge to determine the aerial drop cost per foot.

Buried drop costs are the costs of the drop that is buried from the pedestal to the NID attached to the customer's premises. The buried drop material costs are a weighted composite of the cost of 4 pair, 18 ½ gauge copper drop for residential customers, and 6 pair, 22 gauge copper drop for business customers. These two drop types were weighted using a ratio of residential and business lines to total lines in the serving area.

The cost of buried drops includes the material cost and the labor cost to install the cable. Labor costs are based on company-specific contracts for burying drops which are paid on a per drop basis - not a per foot basis. The per-foot labor cost is calculated by dividing the contract installation cost per drop by the average buried drop length. The average buried drop length is based on the average feet plowed for a buried drop.

The buried drop material is the weighted cost of the 6 pair cable used for business drops and the 4 pair cable used for residential drops. These two cable types were weighted using a ratio of residential and business lines to total lines. This weighted material cost is then added to the per foot labor charge to determine the aerial drop cost per foot. (EXH 2, KWD-2, pp. 15-16)

Sprint opines in its post-hearing brief that the Commission should adopt these inputs proposed for drops as they were unopposed by any party. (Sprint BR at 39)

# <u>Analysis</u>

The drop is the cable that extends from the customer's premises to the terminal. The terminal is where the drop wires are connected to the distribution cable. (PSC-99-0068-FOF-TP, p. 176) After reviewing the documentation provided by Sprint witness Dickerson in Exhibit 2 and the corresponding workpapers in Exhibit 3 (a confidential document in this proceeding) staff believes that

the various material and labor assumptions used to calculate drop costs, which are based on Sprint-Florida's current vendor material costs, Sprint-Florida's Florida-specific contractor cost and Florida-specific labor hour costs and labor hour estimates, are reasonable. Therefore, staff believes that the appropriate assumptions and inputs for drops are those reflected in Sprint's current cost study model.

#### CONCLUSION

Staff recommends that appropriate assumptions and inputs for drops are those reflected in Sprint's current cost study model.

Issue 7(I)

**ISSUE 7(1)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(1) network interface devices;

**RECOMMENDATION:** Staff recommends that the appropriate assumptions and inputs to be used in the forward-looking recurring UNE cost studies for network interface devices (NIDs) are those proposed by Sprint. (J-E Brown)

### POSITION OF THE PARTIES

**SPRINT**: Sprint-Florida has provided the cost for 6-line and 25-line NIDs suitable for POTS applications and the cost for Smartjack for DS1 applications. The material cost portion of these UNEs reflects Sprint-Florida's current vendor purchase cost for the three respective NID types.

**FDN**: No position at this time.

KMC: No position.

**<u>Z-TEL</u>**: No position.

**STAFF ANALYSIS:** This issue addresses what are the appropriate assumptions and inputs to be used in the forward-looking recurring UNE cost studies for NIDs.

## Arguments

No party other than Sprint took a position or filed testimony on this issue. Therefore, staff will make its recommendation based on the limited testimony Sprint provided on the record and the position Sprint filed in its post-hearing brief. Sprint believes that its current cost study model inputs for drops are appropriate. (Sprint BR at 39) Sprint witness Dickerson provides a summary description of Sprint's cost model NID inputs:

The material cost portion of these UNEs reflects Sprint-Florida's current vendor purchase cost for the three

respective NID types. Installation of NIDs and Smartjack devices is included in the non-recurring charge cost study. (TR 78)

During his deposition, Sprint witness Dickerson provided a more detailed outline of how its 6-line NID is modeled in the Sprint cost model study:

. . . a housing for a six-line NID which is what we install today on new installs. The materials inside the NID is [sic] just the materials sufficient to serve two lines. So basically you have the cost of a two-line NID with a six-line housing which allows you to efficiently serve additional lines there by adding additional materials inside the housing if the demand at that location requires it. (EXH 14, pp.50-51)

The other parties failed to file a position in either their prehearing statements or post-hearing briefs.

## <u>Analysis</u>

Staff compared the proposed inputs and assumptions for NIDs with Sprint's current rates for NIDs in its Access Service Tariff. (Sprint-Florida, Access Service Tariff, Section E19.8.2, p. 40.1; Section E19.8.6, p. 45, Effective 10/27/99) Staff understands that Sprint no longer provisions a 2-line NID for residential customers. Sprint now provisions either a 6-line NID housing or a 25-line NID. Although the 6-line NID housing has the capacity for 6 lines, Sprint assumes the provisioning of 2-lines for its new customers and only installs additional lines if requested. (EXH 14, pp.50-51)

Staff notes that the NID inputs and assumptions in the Sprint cost study provide the ALECs with more favorable monthly rates for Smartjacks, with a decrease of \$3.51, and non-recurring charges for a 2-line NID connection/installation, with a decrease of \$20.36. The trip charge and monthly rate for a 2-line NID have increased by 2.5 and 1.0 percent, respectively, since the October 1999 effective date of the current Sprint-FL Tariff. (EXH 2, KWD-2, vol. II;

Sprint-Florida, Access Service Tariff, Section E19.8.2, p. 40.1; Section E19.8.6, p. 45, Effective 10/27/99)

After reviewing the documentation provided by Sprint witness Dickerson in Exhibit 2, staff believes that the various material and labor assumptions used to calculate NID costs, which are based on Sprint-Florida's current vendor material costs, Sprint's Florida-specific contractor cost and Florida-specific labor hour costs and labor hour estimates, are reasonable. Therefore, staff believes that the appropriate assumptions and inputs for NIDs are those reflected in Sprint's current cost study model.

### CONCLUSION

Staff recommends that appropriate assumptions and inputs to be used in the forward-looking recurring UNE cost studies for NIDs are reflected in Sprint's current cost study model.

lssue 7(m)

**ISSUE 7(m)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(m) digital loop carrier costs;

**RECOMMENDATION:** Staff recommends the appropriate assumptions and inputs to be used in the forward-looking recurring UNE cost studies for digital loop carrier costs are those proposed by Sprint. (J-E Brown)

### POSITION OF THE PARTIES

**SPRINT**: The digital loop carrier (DLC) inputs reflect the combined material cost and engineering, outside plant and central office installation labor costs for an installed DLC. The material cost reflect Sprint-Florida's current vendor purchase prices and Florida-specific labor rates for engineering and installation.

**FDN**: Sprint states that its DLC inputs are appropriately modified to reflect a lower cost GR-303 Integrated DLC (IDLC) configuration. Sprint does not model its stand alone UNE loop model on such a configuration and instead uses a much more expensive Universal DLC (UDLC) configuration.

 $\underline{\mathsf{KMC}}$ : KMC concurs with the position and analysis of Florida Digital Network (FDN).

**<u>Z-TEL</u>**: No position.

**STAFF ANALYSIS:** This issue addresses what are the appropriate assumptions and inputs to be used in the forward-looking recurring UNE cost studies for digital loop carrier costs.

### Arguments

There appears to be a disagreement among the parties as to what type of digital loop carrier (DLC) configuration should be modeled. (TR 181; FDN BR at 25; KMC BR at 9) Sprint believes its DLC inputs are appropriately modified to reflect a lower cost GR-303 Integrated DLC (IDLC) configuration only when a loop and a port are ordered and provisioned together. Sprint does not model its stand-alone UNE loop model assuming an IDLC configuration; instead, it utilizes Universal DLC (UDLC), a more expensive configuration. According to Sprint witness Dickerson, "...Sprint's DLC inputs for stand-alone unbundled loops reflect the additional equipment requirements necessary to deliver dedicated unbundled loops to ALEC customers collocated at the central office. This additional equipment is the Central Office Terminal and DS-0 level line card." (TR 79) Sprint witness Cox further explains:

The elements of UNE-P for this filing consist of a 2-wire loop and switching port. The benefits that result are related to using a GR-303 switch interface. The primary difference between the cost of a loop and port that are sold in combination (UNE-P) and those elements purchased on a standalone basis, is the result of the technology used to provide the elements. The technical difference between unbundled loops and ports purchased as part of UNE-P, is that the GR-303 interface is used in place of an analog interface. With GR-303, the Integrated Digital Loop Carrier (IDLC) Central Office Terminal (COT) is integrated with the central office switch. This permits connectivity between the switch and COT at the DS-1 level in lieu of individual switch line cards and COT line cards connected back to back with analog jumpers. The positive economies for loops sold in combination with switching are related to the differences in labor and material in the IDLC system and to the substitution of DS-1 level for line level switch and COT interfaces. (TR 181)

Additionally, Sprint witness Dickerson states:

. . . the DLC inputs are appropriately modified to reflect а lower cost GR-303 Integrated (IDLC) configuration. This IDLC configuration can be utilized in UNE-P applications because the link between the DLC and the switch can be combined with other customers served by the DLC and integrated straight into the switch on a common path. This reduces the cost of the DLC inputs by removing the central office equipment and DS-0

level line card costs necessary in stand-alone UNE loop
applications. (TR 79-80)

Sprint witness Dickerson states that the cost study assumes 100 percent use of Universal Digital Loop Carrier (UDLC) for standalone loops. (EXH 14, p. 55) He explains "every stand-alone loop that's sold will have to be configured in that manner (UDLC). So in computing the stand-alone unbundled loop prices, that's the proper way to model. When we model the sale of loop and switch port combinations, we model using an integrated Next Generation Digital Loop Carrier (NGDLC) network deployment." (EXH 14, p. 55) When asked his understanding of the difference between NGDLC and UDLC, witness Dickerson replied:

I don't think it differs automatically at all. I think it's just meant to connotate the latest state of the art for a remote terminal digital loop carrier device. And again, NGDLCs in order to provide unbundled loop paths are necessarily configured with the DS-0 level line cards plugged into the central office terminal at the central office, and some people refer to that as a universal configuration. It's a necessary configuration to provide an unbundled loop. (EXH 14, p. 44)

FDN did not file testimony on this issue. However, in its post-hearing brief FDN points out that Sprint utilizes IDLC as part of Sprint's own technology. Further, IDLC has played an increasingly important role throughout the footprint of Sprint's network. As a result, FDN asserts that IDLC should be considered a "currently available" technology, the subject of the FCC's regulation 47 C.F.R. § 51.505(b)(1) that was recently upheld by the United States Supreme Court<sup>10</sup> and in other state PSC rulings.<sup>11</sup> (FDN BR at 15) Additionally, FDN notes that these rulings "provide that UNE costs must be based on the use of the most efficient

<sup>&</sup>lt;sup>10</sup>Verizon Communications Inc., et al., v. Federal Communications Commission, et al., 152 L Ed. 2d 701, 122 S. Ct. 1646, 2002 U.S. Lexis 3559 (May 13, 2002).

<sup>&</sup>lt;sup>11</sup>In the Matter, On the Commission's Own Motion, to Consider the Total Long Run Incremental Cost for All Access, Toll, and Local Exchange Service Provided by Ameritech Michigan.

telecommunications technology currently available and require that prices for interconnection and access to unbundled network elements should be developed from a forward-looking economic cost methodology based on the most efficient technology deployed in the incumbent LEC's current wire center locations." (FDN BR at 15)

# <u>Analysis</u>

Staff is troubled by the fact that no party filed testimony in opposition to Sprint on this issue. Further, staff notes that FDN, the only opposing party to state a position, did not do so until post-hearing brief. its Digital Loop Carrier is network transmission equipment that is used to reduce the number of copper feeder pairs or cables needed to activate the necessary distribution pairs. It multiplexes multiple voice grade channels onto one fiber facility to the central office. (EXH 2, Section III.B.4, Loop Documentation) Staff agrees with Sprint witness Dickerson that UDLC, the DLC configuration proposed by Sprint for stand-alone loops, reflects the additional equipment requirements necessary to deliver dedicated unbundled loops to ALEC customers collocated at the central office. (TR 79) Additionally, staff agrees with the claim, unrefuted by record evidence, made by Sprint witness Dickerson that suggests that every stand-alone loop that is sold will have to be configured utilizing UDLC technology; however, when modeling the sale of loop and switch port combinations, IDLC network deployment should be used. (EXH 14, As a result, staff believes that the Sprint cost study's p.55) utilization of UDLC for the provisioning of stand-alone loops is based on the most efficient telecommunications technology currently available and on the most efficient technology deployed in Sprint's current wire center locations.

## CONCLUSION

Staff recommends the appropriate assumptions and inputs to be used in the forward-looking recurring UNE cost studies for digital loop carrier costs are those proposed by Sprint.

Issue 7(n)

**ISSUE 7(n)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(n) terminal costs;

**<u>RECOMMENDATION</u>**: Staff believes the assumptions and inputs for terminal costs proposed by Sprint are appropriate and recommends that they be used in conjunction with staff's recommended changes in other applicable issues. (Cater)

# POSITION OF THE PARTIES

**SPRINT**: Please refer to Sprint-Florida's Position on Issue 7(k).

**FDN**: No position at this time.

KMC: No position.

**STAFF ANALYSIS**: In his deposition, Sprint witness Dickerson was asked what terminal costs were, and responded that ". . .terminals can be drop terminals where the distribution pair is terminated on one side and the drop pairs are terminated on the other side and they're cross-connected within that terminal. It's generally a place to make connections between two segments of cable." (EXH 14, p. 11)

Witness Dickerson explained that terminal costs are determined by identifying the vendor cost of material, sales tax, and labor costs, with the sum of these costs becoming the model input. They are modeled based on different sizes of terminals and the model can match the size of the terminal with the demand at the point where it is being placed. (EXH 14, pp. 11-12)

Sprint's Loop Module provides the following information about the costs of both aerial and buried drop terminals:

• The model will reflect enclosures that are able to hold up to 25 pair terminal blocks.

- The model places terminals based on the number of connecting drops, with either a 6, 12, or 25-pair terminal block being placed.
- The splice closure, terminal block, and labor costs are included in the installed cost of the terminal.block, with installation costs being based on outside plant experts' time estimated and Sprint's labor rates. (EXH 2, Loop Module, pp. 13-14)

### CONCLUSION

Sprint is the only party that provided testimony or has a position concerning this issue. Therefore, based on the limited record on this issue, staff believes the assumptions and inputs for terminal costs proposed by Sprint are appropriate and recommends that they be used in conjunction with staff's recommended changes in other applicable issues.

Issue 7(o)

**ISSUE 7(o)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(o) switching costs and associated variables;

**RECOMMENDATION:** The appropriate assumptions and inputs for switching costs and associated variables to be used in the forwardlooking recurring UNE cost studies are those proposed by Sprint. Sprint's assumptions and inputs are forward-looking and indicative of switching that Sprint can and would use, both currently and prospectively. In addition, this recommendation should incorporate staff's recommended changes in all other applicable issues.(**T**. **Brown, Dowds**)

### POSITION OF THE PARTIES

**<u>SPRINT</u>**: Sprint-Florida has developed costs for local switching and associated variables via three separate components: usage sensitive switching, a flat-rated port, and flat-rated features.

**FDN**: No position at this time.

KMC: No position.

## STAFF ANALYSIS:

The issue before this Commission is to determine the appropriate assumptions and inputs for switching costs and associated variables that will be used in the forward-looking recurring UNE cost studies. Staff notes at the outset that Sprint was the only party to provide any testimony on this issue.

### ARGUMENT

Sprint witness Cox states "Sprint uses the FCC's original recommendations in the First Report and Order to develop recurring switching costs." (TR 172) Sprint cites to FCC 96-325, ¶810, which states,

We conclude that a combination of flat-rate charge for line ports, which are dedicated to a single new entrant, and either a flat-rate or per-minute usage charge for the switching matrix and for trunk ports, which constitute shared facilities, best reflects the way costs for unbundled switching are incurred and is therefore reasonable.

Sprint argues that its three cost components - usage-sensitive switching, flat-rated port, and flat-rated features - are consistent with the FCC's recommendation. (TR 172) In general, witness Cox asserts that Sprint's approach to switching cost development is to differentiate between fixed and variable cost components. (TR 172; Sprint BR at 42) Moreover, witness Cox states, "[t]he variable component's investment in the switch are divided by the call attempts and minutes of use (MOU), while the fixed components of the switch are divided by the lines in the switch." (TR 172)

The costs for circuit switching are developed using Switching Cost Information System (SCIS) and Sprint's Switching Cost Model (SCM). (TR 173; EXH 2, Vol. I) Sprint states,

Total investment is derived from the Telcordia SCIS (Switching Cost Information System) model, and combined with actual usage information and company-specific vendor switch discounts to derive TELRIC investment results for each host office complex. The SCIS model is a widely used and accepted industry model for determining switching investment. (BR at 42; TR 173)

According to witness Cox, SCIS considers vendor-specific hardware for each central office (CO). Costs for software and power investment are determined separately and included in the SCM inputs, along with the SCIS results. (TR 173; BR at 42) As such, Sprint contends that

[s]witching costs are provided on a per exchange basis. Each exchange reflects the cost characteristics of the host/remote switching complex providing service to that exchange. (TR 176)

Witness Cox asserts that call set-up costs and call duration costs are determined separately in the costing process. These costs are easily separated using SCIS, with call set-up costs consisting of central processor costs required to set-up the call, and a per minute-of-use (MOU) cost consisting of line and trunk portions of the switch. (TR 177-178) Common costs are also included here. (TR 177) He refers to this process as a ". . bifurcated cost development process." (TR 177)

Sprint asserts that its costs reflect a blended discount process which takes into account new discounts, new growth, and growth discounts. (EXH 12, pp.58-59) The Sprint model reflected 74% weighting on new and a 26% weighting on growth discount for the Nortel switching equipment. In addition, Sprint witness Cox notes that the Lucent switching equipment shows the same discounts, with ". . . no differentiation for new or growth." (EXH 12, pp.59-60)

Sprint witness Cox asserts that the SCM TELRIC methodology consists of six (6) basic steps. These steps are repeated for each switch studied. (TR 173) Witness Cox states "[t]he first step is to determine the total forward-looking switching investment using the SCIS model." (TR 174) He adds that for each central office (CO), Sprint has modeled the "current technology that's there in place." (EXH 12, p.60) According to witness Cox, both the Nortel DMS-100 and the Lucent 5ESS switches were studied. (TR 174) Of the switches studied, 30% are 5ESS switches and 70% DMS100s. (EXH 12, p.61) The 5ESS was ultimately modeled, and witness Cox asserts that the 5ESS is in place and forward-looking. (EXH 12, p.61) According to Cox, the use of the 5ESS was the result of ". . . an engineering decision that was made." (EXH 12, p.60) He adds that individual host switches in Florida ". . . are predominately Nortel DMS-100 technology . . ." (TR 174)

Total switch investment consists of several investment categories, including:

- Getting Started the investment required to provide call set-up costs.
- 2. Fixed Line the investment required to terminate the local loop in the central office. It is

composed primarily of a line card, the main distribution frame, and protector.

- 3. Line Usage the investment associated with usage sensitive line-side switching. It consists primarily of line concentration equipment, digital links, controllers, and a portion of the network modules. Trunk Usage - the investment with usage sensitive trunk-side switching. It is composed primarily of digital trunk controllers, DS1 links, and a portion of the network modules. Umbilical Usage - the usage sensitive investment in hostremote links.
- SS7 Link investment associated with the SSP (Service Signaling Point) located in the central office. (TR 174)

Witness Cox notes that "getting started" investment is essentially ". . . the costs associated with the processor and a switch." (EXH 12, p.58)

After SCIS determines the investment associated with each switch in Sprint's network and partitions the investment into the aforementioned categories, the remaining steps occur in the SCM. These steps include determining the number of processor milliseconds required to process each type of call, deriving monthly expense per investment category, calculating the cost per call set-up and call type, and calculating the cost per MOU by call type. (TR 175-176) The results of each of these steps is contained in Exhibit 2, Vol. II, under the "Switching" tab. Furthermore, witness Cox states that each CO's TELRIC results (minus the common cost factor) are summarized under the "Cost Summary" worksheet, also found in Exhibit 2, Vol. II. (TR 176) The SCM switching results are segregated between the costs for host/remote complexes and the costs for tandem offices. (TR 176)

Next, the SCIS/IN (Switching Cost Information System/Intelligent Network), an adjunct model to SCIS, is used to determine costs for the ". . . most prevalent features." (Cox TR 178) The prevalent features for which costs were computed include twenty-four Centrex features, eight CLASS features, ten Custom Calling features, and eight ISDN-BRI features. (TR 178-179)

Features resulting from SCIS/IN for Centrex can be located in EXH 12, pp.79-89, and ISDN features on pp. 90-96. Witness Cox states "[a]ctual usage and demand information for Florida was used in the SCIS/IN model." (TR 179) He goes on to state,

Second, the SCIS/IN model only aggregates resource costs for the switch resources consumed, along with costs for any additional hardware required to provide the feature. Software costs are added separately.

Third, the annual charge factor is applied to derive an annual cost.

Fourth, the annual cost is divided by twelve to derive a monthly cost.

Fifth, the common cost factor is applied to determine the total cost of the features in each category, for a total feature package cost. (TR 179)

Witness Cox proffers that Sprint has developed feature packages that may be purchased with a switching port. Individual packages of features (Custom Calling, CLASS, Centrex, and BRI-ISDN) may be selected for provisioning on single lines. (TR 179) Witness Cox claims that this arrangement keeps ALECs from having to purchase undesired feature capability, while allowing Sprint to recover its feature-related costs on a per port basis. (TR 179) He states that feature capability cannot be purchased without also purchasing the switching port. Once the port is purchased, Sprint allows the ALEC to customize the switching port it has purchased. The Sprint witness contends that ". . . feature capability is an integral part of the switch." (TR 180) In support of this argument, witness Cox offers the following:

The definition of the local switching UNE that came from the UNE Remand Order is that '. . . local circuit switching as including the basic function of connecting lines and trunks. In addition to line-side and trunkside facilities, the definition of the local switching element encompasses all the features, functions and

capabilities of the switch.' (Paragraph 244, UNE Remand Order)(EXH 10, p.297)

Citing to footnote 475 in the <u>UNE Remand Order</u> in response to an interrogatory, Sprint witness Hunsucker adds,

. . . The local switching element includes all vertical features that the switch is capable of providing, including customized routing functions, CLASS features, Centrex and any technically feasible customized routing functions. Custom calling features, such as call-waiting, three-way calling, and call forwarding are switch-based calling functions. (EXH 10, p.297)

In addition, Sprint contends

Paragraph 816 of the First Report states '. . . we concluded earlier that vertical features are part of the unbundled local switching element, because they are provided through the operation of the hardware and software comprising the 'facility' that is the switch.' (EXH 10, p.297)

The approach to determining tandem switching costs follows that of local switching, and assumes that the cost of local switching is equal to local trunk-to-trunk switching. Sprint witness Cox states, "[t]andem switching charges apply if local traffic goes through both a local tandem switch and an end-office switch to reach a customer; both rates would apply (as well as common transport) and are simply added together." (TR 180-181)

In conclusion, Sprint adds that its position was unopposed by any party in this proceeding. (Sprint BR at 42)

### ANALYSIS

Staff concurs with Sprint witness Cox that Sprint's position and evidence were unopposed here. As such, staff's analysis on this issue will be abbreviated in this phase.

Staff believes that Sprint has properly assumed the use of SCIS in average mode to determine switch investment. (EXH 10, p.287) The average investment calculation is based on a switch's total investment to support total demand. On the other hand, the SCIS marginal investment calculation compares total switch investment ". . . divided by the capacity to the capacity of the processor, assuming switch exhaust." (EXH 10, p.287) Staff agrees with Sprint's assumptions related to using the average investment mode are proper and consistent with TELRIC methodology.

Staff notes that Sprint's proposed rate for local switching is \$.002274 per MOU based on a statewide average. (EXH 12, p.61; EXH 2, Tab X, p.6) Moreover, even though witness Cox stated that he was not familiar with BellSouth's approved switching rate, staff believes that it is important to note that the rate for BellSouth is \$.0007662 per MOU. (EXH 12, p.62) As alluded to in witness Cox's deposition, Sprint's proposed rate is almost 300% higher than BellSouth's approved rate. (EXH 12, p.62)

Staff has concerns regarding the usage and demand data gathered for use in SCIS/IN to generate feature costs. According to Sprint's response to a staff discovery request, the data used were from studies completed in 1996. Moreover, the usage and demand data does not consist of data for all of Sprint-Florida's wire centers. Instead, the company used selected data collected from all Sprint regions, not just Sprint-Florida wire centers. (EXH 10, p.293) Sprint offers as a rationale for this approach:

Since usage data for some features were unavailable in some regions, but feature data was available in other regions, Sprint decided that a system-wide, weighted SCIS/IN feature input based on all the regional results would be most accurate. Sprint assumed that customer use of features is consistent across the regions. Feature and switch Subject Matter Experts (SMEs) reviewed the resulting input data for reasonableness. (EXH 10, pp. 293-294)

In light of the Company's response to this discovery request, staff is somewhat troubled by Sprint witness Cox's assertion in his testimony that "[a]ctual usage and demand information for Florida

was used in the SCIS/IN model." (TR 179) Although apparently <u>some</u> Florida-specific usage and demand data were used in Sprint's analyses, staff is unable to discern for what features or geographic areas Florida data was used. Further, we question to what extent the data used represents ". . . system-wide weighted SCIS/IN feature input." (EXH 10, p.293) Rather, it appears that Sprint may have merely assembled usage and demand data for a given feature wherever it could obtain it. Finally, staff notes that the record is silent as to Sprint customers' feature subscription levels in Florida as opposed to levels in other Sprint service areas; as such, we have no basis to evaluate Sprint's assumption that customer use is consistent throughout its various regions.

As noted above, Sprint chose to determine feature costs for those 50 features which were "the most prevalent." According to a discovery response, the Company identified these 50 features based on a review of actual data on retail features in-service. (EXH 10, p.293) These represent the features which are most commonly sold. (EXH 12, p.11) Sprint-Florida asserts that packaging the most prevalent features was done for customer benefit. Staff agrees that using feature packages minimizes the complexity for ordering features and reduces the number of billing charges a customer might verify. Moreover, although Sprint is proposing rates for a limited number of switch features, the Company notes that if an ALEC desires additional features it would provide a price quote upon request. However, according to Sprint, none have been requested to date. (EXH 10, p.294) Although these features were originally packaged for the retail market, Sprint believes that demand for feature selection would be similar on the UNE side. Based on that belief, Sprint offers CCF, CLASS, Centrex and ISDN packages, but at year-end 2001, no UNE features or feature packages had been purchased. (EXH 10, p.296)

Staff agrees with Sprint that an ALEC cannot purchase switch features without also purchasing a port. Staff concurs with Sprint's understanding that,

. . . features are an inherent capability provided by the switch and therefore inseparable from the port. <u>The features and functions are the switch</u>. If a customer wanted to buy UNE features separately from the port, they

> are essentially creating a new UNE, further unbundling the local switching UNE in that case. Sprint-Florida considers this definition to mean that the FCC clearly has stated that port and features are inseparable, and features can only be provided with a port. (emphasis added) (EXH 10, pp.297-298)

Staff notes that although not provided with the initial filing, Sprint did make available the determinants for software and power investments. (EXH 10, p.289) Sprint's software costs are proprietary and are provided by the vendor. Despite the information being proprietary, Sprint asserts that no software costs attributable to non-studied features were included in feature costing. (EXH 10, p.295) Power investment is comprised of battery chargers, power boards, battery distribution bay, battery plant, copper cables, cable rack and ground cabling. This investment is necessary to provide DC power to central offices and for commercial consumption. (EXH 10, p.289)

### CONCLUSION

The appropriate assumptions and inputs for switching costs and associated variables to be used in the forward-looking recurring UNE cost studies are those proposed by Sprint. Sprint's assumptions and inputs are forward-looking and indicative of switching that Sprint can and would use, both currently and prospectively. In addition, this recommendation should incorporate staff's recommended changes in all other applicable issues.

**ISSUE 7(p)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(p) traffic data;

**<u>RECOMMENDATION</u>**: The appropriate assumptions and inputs are those recommended by Sprint. (Wright)

### POSITION OF THE PARTIES

**SPRINT**: The appropriate assumptions and inputs that should be used in the development of forward-looking economic recurring costs are those set forth in the cost studies filed by Sprint-Florida on November 7, 2001, and as explained in the prefiled testimony of Sprint-Florida witnesses Michael Hunsucker, Kent Dickerson, Brian Staihr, Talmage Cox, Jimmy Davis and Terry Talken (Mr. Talken's testimony to be adopted by Michael Fuller).

**FDN**: No position at this time.

KMC: Agree with FDN.

**<u>Z-TEL</u>**: No position.

**STAFF ANALYSIS**: According to Sprint witness Cox, the approach to switching costs development is to distinguish between the fixed and variable switch cost components. The variable components' investment in the switch are divided by the call attempts and minutes of use (MOU), while the fixed components of the switch are divided by the lines in the switch. (TR 172) The following criteria were associated with the traffic data used in the cost study:

- Sprint-Florida specific.
- Studied DMS Host/Remote/Tandem wire centers.
- Traffic Data studied in 2000.
- Traffic includes all jurisdictions; local/toll/access. (EXH 10, p. 220)

Traffic data is utilized principally in the switching and transport UNE cost studies. Traffic data is utilized to calculate the usage sensitive costs associated with the central office host, remote and tandem switches.

The average monthly minutes of use per DS1 were used to calculate the Common Transport Rate per Minute of Use (MOU). (EXH 10, p.218) Witness Cox states that "The largest single determinant in the unit cost of a DSO, DS1, DS3, OC3, or OC12 transport circuit, is the volume of telecommunications traffic transmitted over a specific transport route." The witness continues that "This volume of traffic, or demand, determines both the appropriate capacity sizing of the terminal equipment and fiber cable." The witness asserts that "As volumes of traffic vary across specific transport routes, so do the sizing and utilization of terminals and fiber cable, and ultimately the resulting unit costs." (TR 157) No other parties filed testimony on this issue.

### CONCLUSION

Staff recommends that the assumptions and inputs for traffic data are those proposed by Sprint.

Issue 7(q)

**ISSUE 7(g):** What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(q) signaling system costs;

**<u>RECOMMENDATION</u>**: Staff recommends that Sprint's proposed SS7 rates and rate structure be accepted, subject to changes that result from changes to specific inputs that are addressed in other issues. (Marsh)

### POSITION OF THE PARTIES

**SPRINT**: The major determinant of cost on the SS7 network is demand on all traffic-sensitive components of the network. These components consist of port-related and switching-related elements.

**FDN**: No position at this time.

KMC: No position.

**STAFF ANALYSIS:** Sprint witness Fuller states that SS7 provides a signaling path to transmit and receive information for call completion. (TR 224) He explains that signaling system seven (SS7) interconnection consists of Signal Transfer Point (STP) ports, interconnecting facilities, and STP switch usage. (TR 224)

TABLE 7(q)-1: Components of SS7	
Component	Purpose
STP Port	Provides customer access to the Sprint STP
STP Transport Link	Facility that connects the ALEC customer's designated premises to the Sprint STP
STP Switching Usage	Provides routing of ISDN User Part (ISUP) messages through an STP

Source: Sprint witness Fuller (TR 223-334)

Witness Fuller contends that "[c]are has been taken to exclude port costs from the STP switching usage investment. Floridaspecific annual charge factors, equipment fill factors, and demand are used in the calculations." (TR 225-226)

FDN (BR at 25) and KMC (BR at 9) took no position on this issue in their briefs. As noted by Sprint in its brief, Sprint-Florida's position and record evidence on Issue 7(q) was unopposed by any party. (BR at 43)

Although no party addressed SS7 specifically, staff notes that Sprint's proposed rates will be impacted by adjustments made to inputs in the model that are used to calculate the SS7 rates, such as annual charge factors and equipment fill factors.

### CONCLUSION

Staff recommends that Sprint's proposed SS7 rates and rate structure be accepted, subject to changes that result from changes to specific inputs that are addressed in other issues.

Issue 7(r)

**ISSUE 7(r)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(r) transport system costs and associated variables;

**<u>RECOMMENDATION</u>**: Staff recommends that Sprint's assumptions and inputs for transport system costs and associated variables be accepted for purposes of establishing recurring UNE rates in this proceeding, subject to staff's adjustments in other issues. (**P**. **Lee**)

#### POSITION OF THE PARTIES

**SPRINT**: Sprint-Florida's development of interoffice transport costs and associated variables for UNEs includes all of the direct cost components required for the service to be fully functional. These inputs include material costs of terminal equipment, transport media, volumes of traffic, and distance.

FDN: No position at this time.

KMC: No position.

**<u>STAFF ANALYSIS</u>**: The only party proffering testimony on transport inputs and associated variables is Sprint.

#### PARTIES' ARGUMENTS

In its simplest definition, transport system costs and associated variables refers to the costs of transport between wire centers. It is also commonly known as interoffice transport or IOT.

Sprint's witness Cox refers to the FCC's definition of unbundled interoffice transmission facilities:

. . . as incumbent LEC transmission facilities . . . dedicated to a particular customer or carrier, that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers,

or between switches owned by incumbent LECs or requesting telecommunications carriers. (47 CFR §51.319 (d)) (TR 153)

Witness Cox explains that transport of the unbundled interoffice transmission facilities is composed of two basic network components: terminals and fiber cable. (TR 153-154) Witness Cox testifies:

Terminals are the equipment housed at the central office locations, and serve as entry and exit points for telecommunications traffic to be moved between interoffice points in the network. In the majority of today's transport networks, and certainly in a forwardlooking network, these interoffice terminals will be optically capable. Additionally, the fiber transport routes in a forward-looking network are constructed in ring design, which provides diverse routing capability in the event of a fiber cable cut, or terminal node failure. (TR 154)

Routing diversity provides the automatic rerouting of traffic over the remainder of the ring if there is a cable cut or terminal node failure. (TR 154, 163) Witness Cox notes that ring technology has become the industry standard technology. (TR 163)

Witness Cox notes that the FCC 96-325, First Report and Order, states:

We require incumbent LECs to provide unbundled access to shared transmission facilities to provide unbundled access to shared transmission facilities between end offices and the tandem switch. Further, incumbent LECs must provide unbundled access to dedicated transmission facilities between LEC central offices or between such offices and those of competing carriers. This includes, at a minimum, interoffice facilities between end offices and service wire centers (SWCs), SWCs and IXC POPs, tandem switches and SWCs, end offices or tandems of the incumbent LEC, and the wire centers of the incumbent LECs and requesting carriers. The incumbent LEC must also

provide, to the extent discussed below, all technically feasible transmission capabilities, such as DS1, DS3, and Optical Carrier levels (e.g. OC-3/12/48/96) that the competing provider could use to provide telecommunications services. We conclude that an incumbent LEC may not limit the facilities to which such interoffice facilities are connected, provided such interconnection is technically feasible, or the use of such facilities. In general, this means the incumbent LECs must provide interoffice facilities between wire centers owned by incumbent LECs or requesting carriers, or between switches owned by incumbent LECs or requesting carriers. For example, an interoffice facility could be used by a competitor to connect to the incumbent LEC's switch or to the competitor's collocated equipment. (See FCC 96-325, First Report and Order, ¶440) (TR 154-155)

In keeping with FCC 96-325, witness Cox explains that Sprint's Transport Cost Model (TCM) determines the TELRIC of interoffice transport for a DSO, DS1, DS3, OC3, and OC12 in support of unbundled elements. (TR 155; EXH 2, KWD-2, Volume 1, Section 1, Sprint TELRIC UNE Model Overview, pp. 12-14) According to the TCM methodology, the major determinants of transport cost are engineered, furnished, and installed (EF&I) investments, terminal bandwidth, utilization, and mileage as applied to Extended Area Service (EAS) routes in the provision of common and dedicated transport. (EXH 2, KWD-2, Volume 1, Section V., p. 4)

## Network Components:

Witness Cox explains that the network components should include all of the direct cost components required for the service to be fully functional. (TR 156) Sprint includes the following in the development of transport system costs:

- Fiber optic cable
- Fiber tip cable
- Fiber patch panel
- Fiber optic terminals (OC-3, OC-12, and OC-48)
- OC-3 cards
- OC-12 cards

- DS-3 cards
- DS-1 cards
- Installation cost
- Capacity
- Utilization factors
- Pole and conduit factors
- Annual charge factors
- Aerial, buried, underground mix (Cox TR 156)

## Associated Variables:

Additionally, witness Cox asserts that the associated variables to be considered with transport system costs include traffic volume, terminal bandwidth, and distance. (TR 157) The witness explains that the largest single determinant in the unit cost of a DS1, DS3, OC3, or OC12 transport circuit, is the volume of traffic transmitted over a specific transport route. (TR 157) The volume of traffic, or demand, determines the appropriate capacity sizing both of the terminal equipment and fiber cable. Moreover, the demand defines the units over which these costs are spread. (Cox TR 157-159)

Witness Cox asserts that, as traffic volumes or demand increases, larger terminals with increased capacity are used which results in greater economies and lower unit costs. (TR 157) The witness states that a basic characteristic of fiber cable is that the volume of traffic is a function of the optical terminal's bandwidth/capacity (OC3, OC12, OC48) placed on the fiber ring. (TR 157) Witness Cox explains that the same traffic volume that drives the unit cost of the terminals is also a major determinant in the transport unit cost of the fiber. (TR 157) As with terminals, the more traffic that a specific transport route carries, the lower the unit cost of a DS0, DS1, DS3, OC3, or OC12 on that route. (Cox TR 157-159)

Regarding distance, witness Cox testifies that more fiber cable must be placed as the distance around a transport ring increases, thereby increasing the cost of bandwidth on that ring. (TR 158) The witness explains that the potential for multiple Synchronous Optical Network (SONET) rings to transport traffic between certain end offices is unavoidable due to ultimate capacity

constraints of terminal equipment and the need to construct fiber rings that link the predominant communities which originate and terminate the largest volumes of traffic on any given ring. (TR 158)

# Terminal Cost Inputs Assumptions:

Witness Cox testifies that Sprint's transport cost inputs recognize the following assumptions:

- Transport terminal cost is based on Sprint-Florida specific data;
- Utilizes forward looking technology;
- Includes optical-based transmission equipment costs only;
- Capable of costing OC3, OC12, and OC48 transport rings individually; and
- Reflects the use of LEC's existing wire centers (TR 159)

More specifically, the witness states that the terminal cost should be developed by terminal bandwidth (OC3, OC12, and OC48) and should include all of the common components required to make the terminal operational. (TR 159) Such components include "relay racks, shelves, line interface, common shelf processor, tributary processor, receive/transmit access shelf module, tributary transceiver, line shelf power supply, common shelf power supply, ring controller, synchronizer card, USI-LAN interface, software, cables, cover, DS3 switch, transmitters, craft interface equipment and software, and common complement of spare equipment." (TR 159) The witness notes that additional line or drop interface equipment is required for the hand off of DSOs, DS1s, DS3s, OC3s, and OC12s. (TR 159)

Witness Cox explains that Sprint's interoffice transport terminal cost inputs reflect current vendor material costs and applicable Florida-specific sales tax. (TR 160) Additionally, the engineering and installation labor inputs are developed by Sprint Engineering as typical work durations considered appropriate for the cost study. (EXH 10, pp. 371-373) Moreover, Florida-specific labor rates have also been utilized. (TR 160)

Witness Cox explains that the TCM contains three input sheets, and several worksheets. (TR 163) The first input sheet shows the inputs of material, engineering and installation cost data:

- Fiber optic cable
- Fiber tip cable
- Fiber patch panel
- Fiber optic terminals (OC-3, OC-12, and OC-48)
- OC-3 cards
- OC-12 cards
- DS-3 cards
- DS-1 cards
- Installation cost
- Capacity
- Utilization factors
- Pole and conduit factors
- Annual charge factors
- Aerial, buried, underground mix

(TR 163-164; EXH 2, KWD-2, Transport Workbook, TRANS04.xls; EXH 2, KWD-2, Inputs Workbook, Inpflt00.xls)

The second input sheet contains each transport ring's characteristics, redesigned using least cost, forward-looking technology. (TR 164) Witness Cox explains:

For example, a current transport system between three locations may be provided through three separate, pointto-point transmission systems. TCM, in most cases, reflects this network as a single fiber ring with three fiber optic terminals. (TR 164)

Witness Cox states that the ring characteristic inputs are:

- Ring Name
- Ring Number
- Segment Name
- Ring Type
- Segment Actual Miles
- Number of Repeaters
- Terminal Size
- Number of DS1 Terminations

- Fiber Tip Cable (Per Fiber) Utilization.
- Fiber Patch Panel (Per Fiber) Utilization
- SONET Terminal Shelf (OC3, OC12, and OC48) Utilization
- OC12 Card Utilization
- OC3 Card Utilization
- DS3 Card Utilization
- DS1 Card Utilization
- DSX3 Cross Connect Shelf
- DSX3 Cross Connect Card
- DSX1 Cross Connect Jack Field
- Channel Bank Shelf
- Channel Bank Card
- Aerial Fiber (Per Fiber) Utilization/Sharing
- Underground Fiber (Per Fiber) Utilization/Sharing
- Buried Fiber (Per Fiber) Utilization/Sharing
- OC3 Card (For Dedicated OC3 Service)(TR 164-165)

Witness Cox explains that the third group of TCM inputs are the transport routes. (TR 165) These inputs develop a routespecific common and dedicated transport cost for DSO, DS1, DS3, OC3, and OC12. (TR 165-166) In addition to the route, the appropriate rings the route will utilize are input. These inputs include:

- Route Originating
- Route Terminating
- Non Sprint Node
- 1<sup>st</sup> 8<sup>th</sup> Ring Number Utilized (TR 165-166)

According to witness Cox, the TCM includes the following five basic steps in calculating dedicated (DS0, DS1, DS3, OC3, and OC12) transport:

- 1. Convert the total utilized capacity of each type of transmission into a cost per DS1.
- Calculate the costs of each six types (OC12, OC3, DS3, DS1, terminal pass-through, and interconnection fiber passthrough).
- 3. Calculate the cost per route mile of fiber facilities, or transit. This cost includes the costs of providing route diversity, or protection.

- 4. Determine the termination and transit costs of each fiber ring. The end result is the termination and transit costs of dedicated DS0, DS1, DS3, OC3, and OC12 transport.
- Convert the termination and transit cost to a weighted average cost for termination and transit for each of the dedicated bandwidth options, DSO, DS1, DS3, OC3, and OC12.
   (TR 166-167)

The witness notes that the common cost factor is then added to develop the TELRIC cost of DSO, DS1, DS3, and OC12. (TR 167)

### Fill Factors

Regarding fill factors, witness Cox testifies that the FCC states:

Per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per-unit costs associated with the element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element. (See FCC 96-325, First Report and Order,  $\P682$ ) (TR 167-168)

Witnesses Cox and Dickerson describe fill or utilization factors as the percentage of available network capacity actually used. (Cox TR 168; Dickerson TR 74) Three factors contribute to utilization:

- <u>Anticipation of future needs</u> is that factor whereby telecommunications companies determine their future plant needs considering the fact that it is cheaper to install facilities for future demand than to install facilities as they are needed,
- <u>Capacity Acquired in "Blocks"</u> is the element that capacity is only available in certain sizes; therefore, unused capacity will exist, and

• <u>Construction Time</u> is the amount of time needed to plan and construct facilities when replacing or expanding capacity. (Cox TR 168; Dickerson TR 74)

Witness Cox notes that efficient deployment balances the costbenefit relationship of unused capacity and the cost of installation. (TR 168) The witness explains that not enough capacity results in an inefficient network; too much capacity results in an inefficient use of resources. (TR 168-169)

Witness Cox asserts that Sprint does not have sufficient traffic to maintain a high utilization factor on all transport routes, given that certain sections of Sprint-Florida are rural. (TR 169) The witness explains that this is due, in large part, to the nature of transmission capacity:

For example, an OC-3 system has the capacity of 3 DS3s, and an OC-12 system has the capacity of 12 DS3s. When an OC-3 system is exhausted and replaced with the larger OC-12 system, its maximum utilization at the time of cutover is only 25% (3 DS3s/ 12 DS3s). In reality, the cutover takes place prior to absolute exhaustion, so the actual utilization at cutover will be less than 25%. (TR 169)

According to the model documentation, demand is projected to grow approximately 40 percent over the next five years. (EXH 2, KWD-2, Volume I, Section 1, Sprint TELRIC UNE Model Input Module Overview, p. 2) Sprint has therefore increased current demand levels by at least 20 percent to reflect the mid-point of the projected growth. The documentation notes that existing transmission capacity may be expanded to meet growth in demand, if necessary. If embedded facilities have more capacity than needed to meet forecasted demand, existing transmission capacity may be reduced. (EXH 2, KWD-2, Volume I, Section 1, Sprint TELRIC UNE Model Input Module Overview, p. 2)

Witness Cox explains that the SONET ring costs are converted into route-specific transport costs on a route by route basis. (TR 169) The ring or rings are identified over which the DS1 will be routed. (TR 170) Costs from the Weighted Termination/Distance

Summary for the given ring number will provide the dedicated economic cost for the route listed. (TR 170)

### ANALYSIS

As noted earlier, there is no testimony from any party on this issue other than Sprint. The only opposing discussion arose in FDN's post-hearing brief on issues 7(g), 7(i), and 7(j). However, because FDN's arguments address interoffice facility calculations as they relate to dark fiber, staff will address those here.

FDN alleges that Sprint has included the cost of dark fiber in its loop and transport cost studies and also in the dark fiber study. FDN opines that this results in double counting the same costs. (FDN BR at 21-22)

Sprint witness Dickerson explains that dark fiber is fiber that is not lit, meaning there are no attached electronics. (EXH 14, p. 65; EXH 2, KWD-2, Volume 1, III.C., Dark Fiber, p. 4) In the interoffice facilities, witness Dickerson asserts that Sprint first analyzes ". . . Florida-specific interoffice transport routes to determine the number of fiber strands required to provide the bandwidth requirements on any given route." (TR 92) The witness states that Sprint assumes a minimum of 36 fibers based on its network planning practices. (TR 92)

Witness Dickerson agrees that Sprint's fiber interoffice facility cost studies are based on expected total demand for fiber facilities. (EXH 14, p. 66) The witness explains:

The sizing of the fiber cables is based on the demand for higher capacity bandwidth loops and circuits that require fiber, which would be DS-3 and above, and the requirements for fiber to serve DLCs. And those are sized to be two fiber working and two hot standbys. And that requirement then is divided by .75 fill factor, and then the closest available fiber cable size that meets that demand requirement is the size that would be modeled. (EXH 14, p. 66)

Additionally, witness Dickerson states that the number of lit fiber strands necessary to meet the route's bandwidth requirements is determined based on actual DS-3 demand. (TR 92) The fiber cable strands for interexchange (IX) bandwidth requirements is then added in the loop cost study. Witness Dickerson explains that the IX fiber routes follow Sprint's existing digital loop carrier (DLC) fiber feeder and DS-3 fiber distribution to result in maximum cable structure sharing between loop and interoffice facilities. Witness Dickerson explains that these calculations are performed for each wire center to determine a statewide weighted average of interoffice dark fiber costs. (TR 92)

Witness Dickerson asserts that Sprint's use of a .75 fill factor for dark fiber is designed to recognize that any fiber cable will have unlit fibers. (EXH 14, p. 66) The fill factor recognizes the spare capacity in the computation of a unit cost. (EXH 14, p. 66) However, when questioned whether the facilities that are used for dark fiber interoffice facilities are the same facilities that are considered the spare capacity of fiber interoffice facilities of lit fiber, the witness responds:

Not necessarily. Not necessarily at all. We could have lit fiber service to a customer today. We could lose that customer tomorrow, and those could become the fibers that a CLEC then wants to purchase from us on a dark fiber basis to serve that same customer that we used to serve with lit fiber. (EXH 14, p. 67)

Moreover, witness Dickerson asserts that a competitive local exchange carrier (CLEC) purchasing lit fiber transport does not pay for the entire unutilized capacity of the lit fiber transport; simply a pro rata share commensurate with the bandwidth purchases. (EXH 14, p. 69) The witness states that over recovery would occur only if the total utilization exceeds 75 percent. (EXH 14, p. 69)

Staff has reviewed Sprint's dark fiber cost study and agrees with Sprint that the rates ensure CLECs pay a pro rata share of unutilized capacity based on their bandwidth purchase. Staff believes this is an equitable approach. Otherwise, the cost of all unutilized bandwidth would shift to retail customers. Staff

believes FDN's disagreement regarding Sprint's dark fiber interoffice transport facilities are unwarranted.

### CONCLUSION

Staff recommends that the transport inputs and associated variables reflected in Sprint's cost study be accepted for purposes of establishing recurring UNE rates in this proceeding, subject to staff's adjustments in other issues.

Issue 7(s)

**ISSUE 7(s)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(s) loadings;

**RECOMMENDATION:** Staff recommends that Sprint's loading factors be accepted for purposes of establishing recurring UNE rates in this proceeding, subject to staff's adjustments in other issues. (P. Lee)

## POSITION OF THE PARTIES

**SPRINT**: In addition to the cable material costs, there are engineering, placing and splicing labor that are added on a "per foot" basis. Overheads, such as supervisory labor for the engineers or outside plant construction workers, are added as a "per foot" amount because the activities do not vary by cable size. These "loadings" are based upon the most current, Florida-specific, geographic-specific information available. There are also "loadings" applicable to structure costs that are similar to the material costs.

**FDN**: No position at this time.

KMC: No position.

**STAFF ANALYSIS:** Sprint is the only party proffering testimony regarding loading factors. Cost model documentation, supporting workpapers, and discovery responses form the basis for staff's recommendation.

#### PARTIES' ARGUMENTS

Sprint witness Dickerson explains that loading factors for taxes, engineering, placement, splicing, exempt material, and overhead costs are added to the per foot cost of cable. (TR 77; EXH 2, KWD-2, Loop Workpaper 1, pp. 4-7) In this way, the per foot cost of cable is converted into a fully engineered, furnished, and installed (EF&I) cost.

## <u>Taxes</u>

The sales tax represents the tax paid on the purchase of materials and exempt materials. It represents all state and local taxes applied to the purchase. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, p. 7)

# Engineering, Placement, Exempt and Other Material, and Overheads

Witness Dickerson explains that cable loading factors are based on an analysis of Sprint's cable installations in Florida for 1998-2000 from the Project Administration and Costing System (PACS). (TR 77) The costs include exempt and other material, such as splice enclosures and cable mounting hardware, overhead and cable placement, splicing and engineering costs. (TR 77; EXH 10, pp. 330, 340-342, 348)

The cost of engineering includes such things as route layout, obtaining permits, securing rights-of-way, and joint use coordination. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, p. 8) According to the cost study methodology, Sprint develops cable engineering cost on a per foot basis. The cost is based on actual Sprint loaded labor rates for Outside Plant Engineering and an estimate of engineering hours per mile of cable placed, by type of The average per foot cost of engineering cable is placement. developed from Sprint's PACS data by dividing the 1998-2000 expenses incurred with engineering each type of copper and fiber cable (aerial, buried, or underground) by the total feet placed of each type of copper and fiber cable. (EXH 10, pp. 231, 233, 347)

Placement costs account for the placing of the cable on a pole line, in a trench, or in a conduit. (EXH 2, KWD-2, Volume 1, Loop Module, III.B., Section 4.2, p. 8) The costs are developed on a per foot basis and are based on the relationship of total expenditures in PACS related to placing the given type of cable divided by the total number of feet of that cable placed. (EXH 10, pp. 343-344)

Sprint notes that its engineering and placement costs can vary by size, location, and type of cable. Sprint explains: Logic stipulates that engineering costs will be greater for larger cables compared to smaller cables. However, when engineers design a route, they will design the entire route, not one piece of cable. Therefore, the inputs to the cost study reflect that routes will be engineered. Sprint-Florida's engineering and placing inputs for a given type of cable do not vary by size of cable. Engineering inputs do not vary by location, but vary by aerial, buried, and underground cable types. Likewise, placing inputs do not vary by cable size, but vary by aerial, buried and underground plant type. Placement inputs for buried cable will vary by density zone as the result of changes in the mix of placing activities and shown in the inputs to SLCM. (EXH 10, p. 330)

Regarding exempt materials, Sprint explains that these materials are comprised of items of small value not warranting separate tracking within Sprint's Continuing Property Records system. (EXH 10, p. 340; EXH 14, p. 25) Examples of exempt materials include aerial cable lashing wire and clamps, gravel used in the bottom of buried cable pedestals/closures, pole steps, bolts, clamps, and markers. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 10; EXH 10, p. 340)

Sprint witness Dickerson explains that the loading factors for exempt materials are based on a relationship of exempt material to material costs using PACS data. (EXH 10, pp. 231, 341-342) In this way, the loading factors vary by cable size. Witness Dickerson notes that this ". . . allows there to be a logical differentiation that larger cables will incur larger levels of exempt material usage." (EXH 14, pp. 23-24)

In addition to the direct labor activities, an overhead loading factor is added to the material cost. Sprint notes that overheads account for the indirect support costs associated with activities that are not directly related to engineering or construction but are necessary components of construction. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 6 of 39; EXH 10, p. 338) The model documentation explains that overheads are added as a per-foot cost because the activities do not vary by

cable size. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 6 of 39; EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 4-7)

# Splicing Costs

Sprint explains that "[s]plicing cost accounts for joining two or more cables together by connecting the conductors." (EXH 2, KWD-2, Volume 1, III.B., Loop Module, p. 7) The SCLM documentation explains that Sprint develops splicing costs on a per pair foot basis based on the total number of pairs placed and the total number of feet placed obtained from 1998-2000 cable placement records. The total expenses incurred to splice cable is then divided by the total number of pair feet placed to determine a cost per cable foot of splicing. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, p. 7) The cost is multiplied by the number of cable pairs for the splicing cost for the particular size cable. In this way, splicing costs vary by size of cable placed. (EXH 14, p. 26) Sprint's splicing rates per pair foot of cable for each type of cable are shown below in Table 7(s)-1:

TABLE 7(s)-1: Splicing Costs				
Account	Splicing Cost Per Pair Foot			
Copper				
Aerial	\$0.0056			
Underground	\$0.0047			
Buried	\$0.0028			
Fiber				
Aerial	\$0.0044			
Underground	\$0.0022			
Buried	\$0.0058			

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 4, 7.

#### ANALYSIS

The development of Sprint's loading factors are shown in Loop Workpaper 1. (EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 4-7) Five factors are added to provide an EF&I cost: exempt and other material, placement, splicing, engineering, and overheads. (Dickerson TR 77; EXH 2, KWD-2, Loop Workpaper 1, pp. 4-7) Additionally, sales tax is added. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 6) The total cost represents an EF&I cost.

Witness Dickerson testifies that loading factors for exempt and other material, placement, and engineering costs are developed on a cost per foot basis from Sprint's 1998-2000 PACS data. (TR 77) The costs for each of these items are based on the ratio of actual 1998-2000 expenses incurred for copper and fiber cable and specific plant type (aerial, buried, and underground cable) to the total feet of each type of cable placed. (EXH 10, p. 347) In this way, these loading costs are the same cost per cable foot regardless of the size of the cable. However, the costs vary depending on the particular cable type whether copper or fiber and also whether the cable is aerial, buried, or underground.

Sprint notes that its engineering and placement costs can vary by size, location, and type of cable. Sprint espouses that engineering costs will be greater for larger cables compared to smaller cables. However, entire cable routes are engineered rather than one piece of cable and the cost study inputs are reflective of this. Sprint's engineering and placement inputs for a given type of cable do not vary by size of cable. Engineering inputs do not vary by location, but vary by aerial, buried, and underground cable types. Likewise, placement inputs do not vary by cable size, but vary by aerial, buried and underground plant type. Placement inputs for buried cable are noted to vary by density zone as the result of changes in the mix of placing activities and shown in the inputs to SLCM. (EXH 10, pp. 330, 348)

In addition to the direct labor activities, an overhead loading factor is added to the material cost. The factor accounts for indirect support costs associated with activities that are not directly related to engineering or construction but are necessary

components of construction. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 8) The model documentation explains that overheads are added as a per-foot amount because the activities do not vary by cable size. (EXH 2, KWD-2, Volume 1, III.B., Loop Module, Section 4, p. 7-9)

Sprint's development of the cable loading factors (engineering, placement, minor materials, and overhead) results in a constant dollar factor that is added to the per foot material cost. (EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 4-7). The percent of total EF&I costs associated with these loading factors increases as the size of the cable decreases. For example, 23 percent of the total EF&I costs for a 4200-pair copper underground cable is associated with loading factors. The percentage increases to about 91 percent for a 100-pair cable and about 95 percent for a 50-pair cable. (EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 5).

Sprint's splicing costs are developed on a per pair foot basis and also rely on PACS data. Total splicing costs obtained from PACS are divided by the total pair feet of cable placed. The per pair foot cost is multiplied by the number of cable pairs for the splicing cost for the particular size cable. In this way, splicing costs vary by size of cable placed; the larger the cable size, the less the splicing factor or ratio is to the total cost. (EXH 14, p. 26)

Staff believes Order No. PSC-99-0068-FOF-TP (Universal Service Order), issued January 7, 1999, in Docket No. 980696-TP regarding the determination of the cost of basic local telecommunications service and Order No. PSC-01-1181-FOF-TP (BellSouth Phase II Order), issued May 25, 2001, in Docket No. 990649A-TP, can offer some guidance in analyzing Sprint's cable cost inputs. Staff does not believe the inputs adopted in either referenced order are appropriate to use in this instant proceeding but should only serve as a reference source in staff's analysis. The Universal Service proceeding related to a legislative mandate and the inputs are more than two years old. Regardless, the adopted inputs were Sprintspecific and can serve as a check for reasonableness of Sprint's proposed inputs in the instant docket. Sprint's total EF&I costs for aerial and underground fiber cable are generally lower than

those adopted by the Universal Service Order. Buried fiber cables reflect a slight increase in larger cables to over a 54 percent increase in the smallest sized cables. On the other hand, Sprint's EF&I total costs for copper cables indicate a more substantial increase over those adopted in the Universal Service Order. Again, the increase is found with the smallest sized cables. The greatest increases in total EF&I costs appear in underground copper cables. For example, Sprint's EF&I costs for a 500-pair underground copper cable are almost 300 percent more than the similar cost adopted in the Universal Service Order.

Sprint explains that larger sized cables are found in urban areas; smaller sized cables are found in more rural areas. (EXH 14, p. 28) Staff believes it is then logical that the total EF&I costs will be greater in smaller sized cables. A closer look at the make up of Sprint's loadings can indicate the major contributors. Table 7(s)-2 shows a percentage breakdown of the components of the exempt and other material, engineering, placement, and overheads factor for each type of cable.

TABLE 7(s)-2: Eng., Plcg., EM,, OH Components					
Account	Exempt & Other Material	Engineering	Placing	Overheads	
	(%)	(%)	(응)	(응)	
Copper					
Aerial	12	20	31	37	
Buried	22	33	NA	46	
Underground	12	11	45	31	
Fiber					
Aerial	9	15	40	36	
Buried	19	33		48	
Underground	8	10	47	35	

Source: EXH 2, KWD-2, Volume III, Loop Workpaper 1, pp. 4-7.

As indicated above, the major portion of the exempt and other material, engineering, placement, and overhead factors are attributed to placement and overheads. It is intuitive that placement costs would comprise a significant portion of the loading factors. However, staff is concerned with overheads contributing 31 percent to 46 percent of the total loading factor. Sprint represents that overheads are indirect support costs associated with activities that are not directly related to engineering or construction but are necessary components of construction. Staff is puzzled and surprised by the portion of Sprint's loading factors comprised of overhead costs; however, we are unable to discern the cause.

The Universal Service Order indicates that Sprint's total cable costs submitted in that proceeding included tax, labor overhead for placing and splicing, and engineering. Staff is unable to compare the factors used in the instant proceeding with those used in the Universal Service proceeding, as Sprint did not provide its loading factors in that proceeding. However, the Universal Service Order notes:

Our analysis demonstrates that actual cable material cost as a percent of total cost for 26 gauge buried copper cable ranged from less than 9 percent for 12 pairs, to almost 64 percent for 4200 pair cable. As the proportion of actual material cost increased, then, of course, the proportion of loading factors decreases. This implies that some economies of scale for non-material costs exist as the size of cable increases. (See Order No. PSC-99-0068-FOF-TP at p. 154)

In this instant proceeding, Sprint's loading factors result in a similar result. Sprint's actual cable material cost as a percent of total cost for 26-gauge buried copper cable ranges from about 6 percent for 12 pairs, to 56 percent for a 4200-pair cable. (EXH 2, KWD-2, Volume III, Loop Workpaper 1, p. 6) Thus, some economies of scale for non-material costs exist as the size of cable increases. Additionally, splicing accounts for about 1 percent of the total EF&I costs for 12 pairs to about 33 percent for 4200 pair. Engineering, placement, exempt and other material, and overheads

range from 92 percent of the total EF&I costs for a 12-pair cable to about 7 percent for a 4200-pair cable.

For comparison purposes only, BellSouth's material costs adopted by Order No. PSC-01-1181-FOF-TP for 26-gauge buried copper cable accounted for 14.6 percent of the total EF&I costs; loading factors for placement, including engineering and exempt materials, accounted for about 85 percent of total EF&I costs. (See Order No. PSC-01-1181-FOF-TP at pp. 216-217) BellSouth's loading factors were linear in that the percent of total EF&I cost attributed to other materials and engineering were the same regardless of cable size. The Commission found that linear loading factors will distort the cost relationships between rural and urban areas. (See Order No. PSC-01-1181-FOF-TP at p. 305)

Staff has reviewed Sprint's loading factors. While staff is puzzled by the portion of Sprint's loading factors attributed to overhead costs, Sprint's overall total EF&I costs appear reasonable when compared to those adopted in the Universal Service Order and the Phase II BellSouth Order.

#### CONCLUSION

Staff recommends that Sprint's loading factors be accepted for purposes of establishing recurring UNE rates in this proceeding, subject to staff's adjustments in other issues.

lssue 7(t)

**ISSUE 7(t)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(t) expenses;

**<u>RECOMMENDATION</u>**: Staff recommends that Sprint-Florida's expense inputs be accepted for purposes of this proceeding. (Marsh)

## POSITION OF THE PARTIES

**SPRINT**: The incorporation of forward-looking expense estimates in Sprint-Florida's UNE cost study process falls into four basic categories and/or processes: 1. The direct maintenance associated with capital investments underlying the various UNEs (e.g., buried copper cable maintenance, digital circuit equipment maintenance); 2. Other Direct Expenses associated with capital investments underlying UNEs (e.g., circuit engineering, cable pair record maintenance, trunk engineering); 3. Forward-looking common cost loadings; and 4. Expenses avoided when selling wholesale level UNEs vs. retail sales costs (e.g., billing and postage costs).

**FDN**: No position at this time.

KMC: No position.

**STAFF ANALYSIS:** Sprint witness Dickerson explains that

. . . forward-looking expense estimates in Sprint's UNE cost study process falls into four basic categories and/or processes: 1. The direct maintenance associated with capital investments underlying the various UNEs (e.g., buried copper cable maintenance, digital circuit equipment maintenance); 2. Other Direct Expenses associated with capital investments underlying UNEs circuit engineering, (e.q., cable pair record maintenance, trunk engineering); 3. Forward-looking common cost loadings; and 4. Expenses avoided when selling wholesale level UNEs vs. retail sales costs (e.g., billing and postage costs). (TR 80)

Witness Dickerson continues that direct maintenance expenses are a component of the Annual Charge Factor (ACF) loadings. (TR 80-81) He states that application of the direct maintenance loadings to forward-looking capital investment provides an estimate of forward-looking direct maintenance expense that is included in the UNE cost study. (TR 81) He explains that the direct maintenance expense component is derived by using 2000 ARMIS data from which the associated 6XXX plant-specific maintenance expense is divided by the associated 2XXX asset account to produce a percent or cents on the dollar relationship. (EXH 14, p. 70)

Witness Dickerson opines that "[i]n the UNE cost study process it is necessary to consider forward-looking direct expenses beyond the direct maintenance expenses described above." (TR 81) He explains that the Other Direct and Common (ODC) cost study "identifies the additional forward-looking direct expenses, such as traffic engineering or assignment functions, and develops loading relationships to the applicable UNE. . . . The forward-looking TELRIC UNE investments are used to develop the other direct expense loading percentages thus assuring a forward-looking level of expense estimate." (TR 81) He adds that common costs are also developed as a part of this process. (TR 82) He states that Sprint's Avoided Cost Study (ACS) removes certain avoided costs by expense category or subaccount. (TR 82) He contends that the use of the ACS process "assures that Sprint's UNE cost study results properly exclude retail expenses that can be avoided when selling UNEs on a wholesale basis." (TR 82)

Sprint pointed out in its brief that FDN took a position in its prehearing statement with regard to this issue. (Sprint BR at 47) Sprint notes that FDN recommended at that time that

'The Commission should require Sprint to derive forwardlooking expenses through a 'bottom up' determination of the expenses needed to operate and support a forwardlooking network. Sprint's maintenance expense component also does not properly reflect annual productivity increases.' (Sprint BR at 47)

Sprint argues that

Not only does FDN fail to support its contention with any record testimony, its position is fundamentally flawed. Indeed, Sprint-Florida is unsure as to what FDN is referring to in its position on Issue 7(t). (Sprint BR at 48)

Staff also has difficulty discerning what FDN meant in its prehearing statement. Witness Dickerson explains in deposition that there are "productivity gains inherent in these TELRIC cost modeling." [sic] (EXH 14, p. 70) He opines that

Generally, the productivity increases are related to adopting and deploying [new] technology. But to the extent we already have experiences--some experiences deploying and operating those new technologies, and then we have exploded the use of those new technologies to our entire network, we have modeled the full productivity gains we're going to get out of using those new technologies." (EXH 14, pp. 71-72)

Beyond witness Dickerson's statement in his deposition, there is no testimony on this issue. There is also no record evidence on what FDN meant by its prehearing statement. No party other than Sprint testified on or briefed expenses. (FDN BR at 25; KMC BR at 9)

## CONCLUSION

Although no party took issue with any specific aspect of Sprint's expense cost study, this should not preclude examination of the expenses in any future proceeding that might arise.

For purposes of this proceeding, staff recommends that Sprint-Florida's expense inputs be accepted.

**ISSUE 7(u)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(u) common costs;

**<u>RECOMMENDATION</u>**: Staff recommends that Sprint-Florida's expense inputs be accepted for purposes of this proceeding. (Marsh)

#### POSITION OF THE PARTIES

**<u>SPRINT</u>**: Common costs such as furniture, office equipment, general purpose computers and corporate operations are also developed in the Other Direct and Company Cost study process.

**FDN**: No position at this time.

KMC: No position

**STAFF ANALYSIS**: The FCC's pricing rules specify that the forward-looking economic cost of an element equals the sum of the total element long-run incremental cost of the element and a reasonable allocation of forward-looking common costs. (47 C.F.R. 51.505(a)) Additionally,

[t]he sum of the allocation of forward-looking common costs for all elements and services shall equal the total forward-looking common costs, exclusive of retail costs, attributable to operating the incumbent LEC's total network, so as to provide all the elements and services offered. (47 C.F.R. 51.505(c)(2)(ii))

The Rule defines forward-looking common costs as "economic costs efficiently incurred in providing a group of elements or services (which may include all elements or services provided by the incumbent LEC) that cannot be attributed directly to individual elements or services." (47 C.F.R. 51.505(c)(1))

The FCC states in its Local Competition Order that

Because the unbundled network elements correspond, to a great extent, to discrete network facilities, and have different operating characteristics, we expect that common costs should be smaller than the common costs associated with the long-run incremental cost of a service. We expect that many facility costs that may be common with respect to the individual services provided by the facilities can be directly attributed to the facilities when offered as unbundled network elements. Moreover, defining the network elements at a relatively high level of aggregation, as we have done, should also reduce the magnitude of the common costs. A properly conducted TELRIC methodology will attribute costs to specific elements to the greatest possible extent, which will reduce common costs. . . [I]n the arbitration process, incumbent LECs shall have the burden to prove the specific nature and magnitude of these forwardlooking common costs. (FCC 96-325 at  $\P695$ )<sup>12</sup>

We conclude that the forward-looking common costs shall be allocated among elements and services in a reasonable manner, consistent with the pro-competitive goals of the 1996 Act. One reasonable allocation method would be to allocate common costs using a fixed allocator, such as a percentage markup over the directly attributable forwardlooking costs. We conclude that a second reasonable allocation method would allocate only a relatively small share of common costs to certain critical network elements, such as the local loop and collocation, that are most difficult for entrants to replicate promptly (*i.e.*, bottleneck facilities). Allocation of common costs on this basis ensures that the prices of network elements that are least likely to be subject to

<sup>&</sup>lt;sup>12</sup>First Report and Order, CC Docket No. 96-98; CC Docket 95-185, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, Order No. FCC 96-325 (released August 8, 1996) (<u>First Report and Order</u>).

competition are not artificially inflated by a large allocation of common costs. (FCC 96-325 at  $\P696$ )

Sprint witness Dickerson provides a minimal discussion of common costs in his testimony. (TR 63; TR 80-82) He explains that the Other Direct and Common (ODC) cost study is used to develop common costs. (TR 81-82)

A single annual Common factor is identified for all categories of unbundled elements. Adding the Common factor to unbundled elements recognizes that common costs are a necessary component of the Total Economic cost for each unbundled element. (EXH 2, KWD-2, Non-proprietary ODC Documentation) The process is described as follows:

The ODC Module uses avoided expenses from the Avoided Cost Study and actual General Ledger investment and expense information and creates two types of factors. First are the Other Direct factors which are added to the direct costs determined in the ACF Module to create a total TELRIC Annual Charge Factor for each type of plant. (EXH 2, KWD-2, Non-proprietary ODC Documentation)

The second factor is the Common Cost factor, which is added to the TELRIC cost to derive the total economic cost of the network element, which is also the price. (EXH 2, KWD-2, Non-proprietary ODC Documentation)

Beyond the discussion provided by Sprint, no testimony was provided on common costs, and no party opposed Sprint's position in their briefs. (Sprint BR at 48; FDN BR at 25; KMC BR at 9)

# <u>Analysis</u>

Sprint uses a common cost factor of 12.03%. (Hunsucker TR 16)

Staff has examined Sprint's model inputs, but did not identify any problem areas. Should this topic be explored in any future proceedings, parties should be free to raise any questions they believe are appropriate. However, for purposes of this proceeding, Sprint's common cost factor of 12.03% should be accepted.

# CONCLUSION

Staff recommends that Sprint-Florida's expense inputs be accepted for purposes of this proceeding.

Issue 7(v)

**ISSUE 7(v)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(v) other.

**<u>RECOMMENDATION</u>**: All matters raised by the parties have been addressed in other issues. Accordingly, no action is needed with regard to this issue. (Marsh)

### POSITION OF THE PARTIES

**<u>SPRINT</u>**: Sprint-Florida has not identified any "other" TELRIC inputs.

**FDN**: No position at this time.

KMC: No position

**STAFF ANALYSIS**: As pointed out in Sprint's brief, "no party to this proceeding provided a position on, or record evidence supporting, any 'other' inputs to the TELRIC study in response to issue 7(v)." (Sprint BR at 48-49) FDN and KMC took no position on this issue. (FDN BR at 25; KMC BR at 10) Staff believes that all matters raised by the parties have been addressed in other issues. Accordingly, no action is needed with regard to this issue.

lssue 8(a),(b),&(e)

**ISSUE 8(a), (b), and (e)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking non-recurring UNE cost studies?

- (a) network design;
- (b) OSS design;
- (e) mix of manual versus electronic activities;

**RECOMMENDATION:** The appropriate assumptions and inputs to be used in the forward-looking non-recurring UNE studies for determining network design, OSS design, and the mix of manual versus electronic activities are those set forth by Sprint. In addition, these assumptions and inputs should be tempered by considerations of what is reasonably achievable. **(T. Brown, Dowds)** 

### POSITION OF THE PARTIES

#### SPRINT:

<u>Issue 8(a)</u>: Sprint-Florida assumes a "Forward-Looking" network as defined by the FCC. This design meets the FCC's dual test of being "Most Efficient" and "Currently Available." Specifically, Sprint-Florida assumes Next Generation Digital Loop Carriers (NGDLCs) in the development of non-recurring charges for unbundled loops and the availability of an "Electronic" means for Competitive Local Exchange Carrier (CLEC) to submit local service requests.

<u>Issue 8(b)</u>: Sprint-Florida has, for non-recurring cost study purposes, assumed the availability of a fully automated Operations Support System (OSS).

<u>Issue 8(e)</u>: Sprint-Florida's non-recurring cost study assumes the availability of a "fully automated" Operations Support System (OSS) for an ALEC to submit Local Service Requests ("LSRs") to the Company. Sprint-Florida also assumes the availability of a manual ordering system for orders not placed through the automated OSS. Automated facility assignment, order routing, switch activation and dispatch have also been assumed as part of the Company's forward-looking network.

# <u>FDN</u>:

<u>Issue 8(a)</u>: NRCs should be based on forward-looking, least-cost network design and processes and exclude the need for expensive labor-intensive manual intervention. Sprint's assumption of the use of 100% UDLC for stand alone UNE loops significantly increases the non-recurring costs for such loops by requiring use of manual cross connects.

Issue 8(b): Sprint admits that its OSS is not fully automated and asserts that it is holding back on full automation due to a lack of demand. Clearly Sprint's cost study is not reflecting use of least cost, forward-looking technology. As a result, there is an excessive amount of manual intervention. Sprint assumes that an excessive amount of orders will not flow through. thus significantly overstating NRCs.

<u>Issue 8(e)</u>: Sprint's work times used in support of its NRCs were based on a combination of subject matter expert ("SME") input and observation. The SME input was based on informal input from SMEs and are unreliable, biased, and not based on the use of efficient practices or forward-looking processes. What Sprint characterizes as "time and motion studies" was unstructured observation of technicians completing certain tasks and are also unreliable and not based on forward-looking, efficient practices.

 $\underline{\mathsf{KMC}}$ : Concurs with the position and analysis of Florida Digital Network (FDN).

## STAFF ANALYSIS:

Issues 8(a), (b), and (e) address the appropriate assumptions and inputs to be used in forward-looking non-recurring UNE cost studies for network design, OSS design, and the mix of manual versus electronic activities, respectively. Much of the testimony overlapped or combined these issues; therefore, staff found it beneficial to set forth a combined recommendation relating to these issues.

#### PARTIES' ARGUMENTS

### <u>Sprint</u>

Sprint witness Davis contends that the study Sprint developed utilizes principles established by the FCC and this Commission. (TR 191) Sprint assumes a forward-looking network (as defined by the FCC) and the availability of a fully automated OSS for ordering UNEs. (Davis TR 195; Hunsucker TR 18, 21) According to Sprint, its cost studies assume 100% automation for an ALEC to submit a service order to Sprint, including 100% flow-through for switch port and enhanced features. (TR 195; EXH 13, p.20) In other words, Sprint asserts that the network utilized in its model meets the FCC's criterion of being the most efficient, least-cost technology currently available. Sprint also assumes the use of Next Generation Digital Loop Carriers (NGDLCs) for unbundled loops. (Davis TR 192) As part of its forward-looking network, Sprint witness Davis asserts that "[a]utomated facility assignment, order routing, switch activation and dispatch have also been assumed . . ." (TR 192)

According to witness Davis, "[t]he purpose of the NRC study is to determine the cost of initiating, changing and providing unbundled element service for ALEC customers." (Davis TR 193) Sprint witness Davis defines non-recurring charges as "one time charges assessed for activities performed by Sprint on behalf of Alternative Local Exchange Carriers (ALECs) which involve the processing of orders and the installation of UNEs." (TR 190) Witness Davis states that Sprint's non-recurring charges,

. . . are based on the amount of time required to complete an activity and the cost of performing that activity. The charges represent the most current wage rates and time components related to UNE services. (TR 193)

Additionally, the NRC study consists of four main steps which appear to be more appropriately addressed in Issues 8(c) and (d).

Sprint proposes that by assuming a forward-looking network, it has been able to develop charges "that relate as closely as

possible to actual costs incurred . . ." (TR 192) Instead of developing a single average charge, the ALECs non-recurring charges will relate to work ". . . actually performed on their behalf." (TR 192) Sprint contends that this will ensure that non-recurring costs will neither be over, nor under-recovered.(TR 192)

As a result, Sprint has three general categories of functions which are reflected in the study. Those functions include, (1) service order charges; (2) installation charges; and (3) other installation charges. (TR 194) Sprint's testimony focused on service order charges, in which Sprint witness Davis asserts that service order charges are meant to cover ". . . the cost of work performed by Sprint in connection with receiving, recording and processing ALEC requests for service." (TR 194) Sprint witness Davis further categorizes these charges as a service order charge, a listing only charge, or a change order charge. (TR 194) The three charges are described below.

- 1) A **Service Order Charge** is applied to all orders for new service received from ALECs.
- 2) A Listing Only Charge is applied to orders received through the Local Service Request (LSR) process to provide directory listings only. (Note: Sprint also provides a "batch" process that is generally used by ALECs for providing directory listings.)
- 3) A Change Order Charge is applied when an ALEC requests a change in a port feature. (emphasis in original) (Davis TR 195)

When ordering service, Sprint has developed two general categories of service order charges. Those service order charges are described in detail below.

**Electronic Service Order Charges** are applied to orders when an ALEC has elected to use Sprint's automated ordering platforms. In this case, it is assumed that a service order will directly flow into the Company's OSS on a fully automated basis. The majority of the costs, therefore, will result from the processing of orders that, due to errors in data provided on the ALEC's LSR, require some form of manual intervention to complete. Typically, this might include requesting service at an address that does not exist or is not complete (such as a missing apartment number). In addition, the LSR might not contain sufficient information to identify the existing service that is being transferred from Sprint to the ALEC. In all cases, Sprint will attempt to manually correct the information and may also contact the ALEC for clarification or correction.

Manual Service Order Charges are applied when an order is not transmitted to Sprint through the automated OSS, such as when an order is placed over the telephone or by facsimile. (emphasis in original) (Davis TR 195-196)

Sprint witness Davis argues that its development of electronic and manual service order charges is consistent with the utilization of a least-cost, forward-looking technology. (TR 196) Witness Davis states that,

[i]n order to be considered forward looking, a technology must be currently available, most efficient and least cost. Sprint believes that the proposed Electronic/Manual service order structure best meets these criteria in a broad range of situations. (TR 196)

As noted in witness Davis' deposition, Sprint based its cost study ". . . on 85% flow-through without any intervention, intervention due to error correction, and 90% flow through without any work being necessary to properly identify the customer." (EXH 13, pp.23-24) Witness Davis states,

[w]e have 15 percent that would require some manual intervention because of errors provided by the ALEC. We're showing another ten percent of the time we will have the possibility of not having -- it says here it's in use but it's not a Sprint customer or it's a customer to another CLEC. That's just a flat error in the identification of the customer. (EXH 13, pp.22-23)

Additionally, Sprint asserts that the flow-through is directly impacted by the quality of an order received from an ALEC. (EXH 13, pp.22-24, 75)

Witness Davis declares that an automated service ordering interface requires an investment by both parties. Determining whether that investment is "most efficient" must take into account the financial impact to both parties. Witness Davis goes on to state, "ALECs presently use both methods [manual and electronic] to transmit orders to Sprint in Florida." (TR 197) Moreover, Sprint argues that since ALECs will use the platform they find the most economically advantageous, both manual and electronic ordering are forward-looking. (Davis TR 197) In addition, Sprint witness Davis states,

[a]s one might expect, the NRC for processing a manual service order is higher. This methodology facilitates changes that relate as closely as possible to actual non-recurring costs incurred, rather than developing a single "average" charge. (TR 197)

In conclusion, Sprint adds that no other party to this proceeding filed testimony regarding the issues addressed within the recommendation here.

#### <u>FDN</u>

Even though it filed no record evidence in this proceeding, FDN asserts in it post-hearing brief that the FCC provides for the recovery of those costs incurred in connection with "'a reconstructed local network [that] will employ the most efficient technology for the reasonably foreseeable capacity requirements'."<sup>13</sup> (FDN BR at 26) Both recurring and non-recurring charges for access to unbundled network elements must be "'developed from a forward looking economic cost methodology based on the most efficient technology deployed in the incumbent LEC's current wire center locations'."<sup>14</sup> (Id.)

 $^{13}\text{Order}$  FCC 96-325, Local Competition Order at  $\texttt{\P685}.$   $^{14}\text{Id}.$ 

FDN argues that Sprint's NRC cost model fails to yield costs that would actually be incurred in a forward-looking TELRIC network. FDN asserts that Sprint's study is based "upon its existing embedded network, thus disregarding virtually all of the efficiencies otherwise associated with its purported least cost, most technologically efficient network." (BR at 27) In support, FDN offers that Sprint can connect one of its customers to this network through electronic cross-connects made by the OSS. (EXH 13, p.59; BR at 27) FDN asserts that this ability provides a substantial cost saving to Sprint. (BR at 27) On the other hand, ALEC connections are accomplished thru manual cross-connections at the MDF. FDN states that these connections ". . . are labor intensive, costly and unnecessary in the forward-looking network." (BR at 27) FDN goes on to assert that the network on which Sprint bases its NRCs utilizes the same ". . . backward-looking use of UDLC technology referenced in Issue 7(a)." (BR at 27) Following the lead of the New York Public Service Commission, FDN proposes that there is no reason to use ". . . embedded UDLC in the cost model" and that Universal Digital Loop Carrier (UDLC) should be eliminated within one year. (Id. at 28)

FDN also points out what it considers to be flaws in Sprint's inputs and assumptions. Among those, FDN argues that Sprint's study assumes order flow through percentages and fallout percentages which are based on Sprint's actual experience. (BR at 29) Additionally, FDN contends that Sprint's fallout percentage is substantially higher than what other commissions have found acceptable. FDN notes that the New York, Michigan, and Connecticut commissions have all limited fallout rates used in cost studies to 2%. (BR at 30-31)

FDN alleges that Sprint's "excessive fallout rate" results from Sprint's alleged failure to use a forward-looking OSS. (BR at 31) In support of its position, FDN offers that Sprint has admitted its OSS is only partially developed and that until an increase in demand is seen, no further development will take place. (<u>Id</u>.; EXH 13, p.20) The additional manual intervention required results in higher costs to the ALECs. (<u>Id</u>.)

FDN states that the excessive fallouts assumed in the model,

. . . are not consistent with state-of-the-art practices, ignore process improvement methods, and therefore overlook forward-looking cost savings potential. This failure to consider these technological advances in the model is a flaw because fundamental forward-looking assumptions are disregarded. The flow through rate associated with each task can have a significant impact on nonrecurring costs. It is extremely important, in the context of nonrecurring cost studies, that historical fallout rates be adjusted to reflect technological efficiencies and process improvements. (Id. at 29)

As such, FDN contends that Sprint has also failed to consider or fully account for efficiencies that would be gained from utilizing an enhanced OSS. By failing to account for this efficiency, FDN believes that Sprint has overstated the non-recurring costs associated with these orders. (<u>Id</u>. at 28) FDN states,

[c]learly, in today's telecommunications environment, automation can be expected to displace much of the need for telecommunications technicians to handle orders manually. When orders "flow through" the system on an automated basis, significant cost savings can occur. Α review of the findings in other jurisdictions reveals the existence of OSS technology platforms that have the potential of providing these cost efficiencies. These systems should be expected to increase system flowthrough (decrease the need for manual intervention) and significantly decrease costs. OSS can only provide efficiency savings when used in conjunction with the associated connection process. In other words, if Sprint has access to these technology platforms, but is not reflecting the efficiencies of this technology in its nonrecurring cost model ("NRCM"), then the NRCM will overstate costs. (BR at 28-29)

FDN asserts that Sprint's NRC study conjures up many of the same concerns addressed by this Commission in Phase A (BellSouth). (BR at 33-34) FDN argues in its post-hearing brief that,

[b]ecause Sprint's NRCM is largely dependent upon estimates obtained through the use of informal surveys of SMEs, it is critical that these data inputs can be relied upon to produce costs that are representative of forwardlooking non-recurring costs in Florida. In other words, if the manner in which the rates were calculated and, if the inputs used in the calculation of the NRCs are not valid, then the resulting rates will not be valid. In particular, if the baseline times are inflated and NRCs will be reflect inefficient practices, the significantly overstated. The baseline should be reflective of an efficient provider's costs, and the forward-looking adjustment should be made to reflect additional efficiencies that will result from future technological advances.

For a number of reasons, the informal surveys relied upon by Sprint in calculating its proposed NRCs are of dubious validity and thus call into question the evidentiary basis for those charges. The most problematic aspect of NRCM is the basis that Sprint uses to support its task times and occurrence factors. For the most part, Sprint has relied upon responses that have been completed by Sprint's subject matter experts to provide critical inputs to the NRCM. (BR at 32-33)

For many NRCs, FDN asserts that there ". . . is a troublesome lack of support," offering that for some charges, Sprint was unable to provide any documentation. (BR at 37) FDN states that,

Sprint's reliance on SMEs to estimate activity times presents a problem in that it is difficult to quantify the subjective nature of the SMEs' opinions. Because the NRCM results are so closely tied to these SME opinions, the costs generated by the model are not reliable unless the responses are reliable and unbiased. Sprint does not, however, provide support to establish this. In fact, the weight of the evidence demonstrates that the survey results are unreliable and biased. (BR at 33)

Because SMEs knew their work was to be used in a UNE rate case, FDN contends that ". . . the opportunity for subjective bias was very high." (BR at 35) In addition, FDN contends that the lack of uniform instructions and the manner in which SMEs were approached creates additional concern.(Id.) Furthermore,

[t]he activities were based on standard Sprint practices so there was no effort to determine what forward looking, efficient practices would be. The Commission has held that the work activities designated need to be forwardlooking, efficient, and consider potential process improvements. (BR at 35)

Additionally, FDN contends that there was limited review of SME activity, stating that,

[f]or some UNE categories in the study, such as high capacity loops and customized routing, only one SME was consulted. For numerous other UNE categories, such as analog loops, digital loops, loop conditioning, subloops, and transport, only two SMEs were consulted. Thus, numerous NRCs would rest on the subjective determinations of one or two SMEs. (BR at 35)

FDN notes that this Commission made specific reductions to particular BellSouth inputs. (BR at 37) FDN proposes that this Commission take a similar approach in this docket. Otherwise, the Commission could implement ". . . a general reduction across the board." (Id.) FDN purports that this would be the same action taken by other commissions, stating:

[t]he Maine PUC noted that "we like other state commissions will ameliorate the likely upward bias in the study by establishing rates below those proposed by Verizon." The Maine PUC ordered an overall 57% reduction in work times. Overall, the Maine PUC found that given all the errors in Verizon's NRCM, Verizon's NRCs should be reduced by a factor of 65%. The New Hampshire Public Service Commission also recently determined that "we are convinced that Bell Atlantic's NRC figures are too high

because its survey samples are very small and subject to upward bias." (FDN BR at 37-38)

<u>KMC</u>

KMC witness Wood argues that this Commission should ". . . use its vast resources to comprehensively review the cost studies and set prices that will work." (TR 253) Witness Wood states,

[i]t would be nice to be able to hire the experts necessary to analyze the ILEC UNE cost studies, but the money simply is not there. It's my understanding that while some of the other ALECs have retained outside experts to evaluate the Verizon cost study, that no one is undertaking the same effort for Sprint's cost study.(TR 252)

Witness Wood asserts that this Commission has the opportunity to control whether competition takes hold or whether customers remain monopolized. (TR 253) Additionally, witness Wood argues that UNE prices cannot be set at levels above retail rates. He contends that all assumptions undertaken as part of this evaluation should ". . . be made in favor of results that promote competition." (Wood TR 263) In conclusion, witness Wood urges this Commission to ". . . conduct this needed evaluation and set new UNE rates that will help give customers a real competitive choice." (TR 265)

### ANALYSIS

Staff notes at the outset that Sprint, FDN, and KMC addressed the issues being dealt with herein, albeit at varying levels. Staff also finds it necessary to note that FDN submitted no testimony and its arguments and allegations were primarily developed in its post-hearing brief, and not as part of the prebrief record. FDN's discussion attempts to cast some doubt on the validity of Sprint's data inputs and assumptions, and ultimately on the non-recurring charges themselves. Staff has made every attempt to note where FDN's argument and position is based only on its brief.

Additionally, despite KMC witness Wood's general disagreement with the pricing proposals made by Sprint, witness Wood did not even review the underlying data or factual inputs related to the study. (EXH 34, pp.7, 16) According to witness Wood, his review was limited to Sprint's recommended rates and their impact on KMC's operations. (EXH 34, pp.11, 16) He suggests that there appears to be ". . . an incredible contradiction in that if you're supporting competition, that you would be proposing rates which would actually be above the retail service offered by - - in this case by Sprint which would in effect prevent anyone from being able to be a competitor." (EXH 34, pp.7-8) Finally, witness Wood urges this Commission to "use its vast resources," follow its mission statement, and promote competition in the state. (TR 253; EXH 34, p.8) Given his cursory review of the study and associated inputs, staff believes that limited weight should be given to witness Wood's statements.

Staff agrees with Sprint witness Davis that non-recurring charges should be based on ". . . one-time charges assessed for activities performed by Sprint on behalf of Alternative Local Exchange Carriers (ALECs) which involve the processing of orders and the installation of UNEs." (TR 190) Staff also agrees with Sprint that "[t]he purpose of the NRC study is to determine the cost of initiating, changing and providing unbundled element service for ALEC customers." (TR 193) In concurrence with the FCC, and the parties in this proceeding, staff believes that NRCs should reflect the most efficient, least-cost technology currently available. (TR 195; FDN BR at 26)

In addressing the assumptions and inputs related to network design in its post-hearing brief, FDN contends that Sprint's model is based upon its "backward-looking" embedded network. (FDN BR at 27) FDN believes that "embedded" UDLC should not be included in the study and states that this Commission should do away with UDLC within one (1) year. (Id. at 28) FDN also asserts that because other commissions have done so, this Commission should impose a similar requirement on Sprint. (Id.) Conversely, Sprint contends that NGDLCs are the current standard and continue to be placed in Florida. (EXH 13, pp.19-20) As such, the non-recurring costs proposed by Sprint recognize the cost of implementing NGDLC. Staff notes that even though the parties appear to use different

terminology when discussing digital loop carrier, the parties actually appear to be discussing the same thing. Sprint witness Dickerson affirms this when asked about the difference between UDLC and NGDLC stating,

I don't think it differs automatically at all. I think it's just meant to connotate the latest state of the art for a remote terminal digital loop carrier device. (EXH 14, p.44)

Whichever term is used, Sprint appears to consider both UDLC and UDLC forward-looking technologies. (EXH 14, p.43) Staff notes that UDLC and NGDLC are addressed in additional detail in Issue 7(m).

Staff agrees with Sprint that the FCC only requires a network to be "the most efficient, least-cost and reasonable technology currently available. . . . " (emphasis added) (TR 192) Staff notes that in the BellSouth phase of this proceeding, this Commission concluded ". . . non-recurring studies should be forward-looking reflecting efficient practices and systems, but this prospective should be tempered by considerations of what is reasonably achievable." (Order No. PSC-01-1181-FOF-TP, p.332) Staff believes that the network modeled by Sprint herein conforms to the FCC's requirements. Although staff acknowledges that Sprint's model is not perfect, staff believes that it is forward-looking, and does "reflect" a network which is most efficient, least-cost, and currently available.

Sprint witness Davis contends that fully automated OSS means that a customer may enter his order directly and it would simply flow through, assuming that the order contains no errors. (TR 195) Staff believes that is unrealistic to assume that 100% of orders will be error-free 100% of the time. It is inevitable that errors at some level will occur in the process no matter what steps are taken. Again, even though Sprint assumes a fully automated OSS for order costing, Sprint is well aware of the fact that their OSS is not fully automated (EXH 13, pp.65, 67). Sprint witness Davis addresses process and productivity improvements, but states that these will not be further developed until the demand is there. Additionally, he references the "high cost" associated with developing these systems. (EXH 13, pp.66) When, and if, those

improvements are made, witness Davis states ". . . it would reduce the amount of manual intervention or manual work needed for processing the order . ." (Id.) Staff anticipates that when such an improved system becomes available, there would also be a corresponding level of cost savings associated with those improvements. Even though improvements and enhancements have been contemplated by Sprint, staff notes that they have not been implemented.

According to Sprint's own testimony, its OSS is not fully developed and is being held until more demand is evident. (EXH 13, p.20) Staff acknowledges that the only item of OSS that Sprint has currently deployed is a web-based online system for LSR entry called Integrated Request Entry System (IRES). (Id. at p.21) IRES is available internally and to ALEC customers for submission of orders electronically. (EXH 10, p.252) Staff notes that for a three month period in 2001, 11.4% of ALEC orders were received by Sprint through manual methods, and 88.6% through electronic means. (EXH 13, p.112) Of those electronically submitted orders, Sprint witness Davis contends that some 15% of ALEC orders ". . . require some manual intervention because of errors provided by the ALEC." (EXH 13, p.22) He goes on to state that another 10% will produce an error while attempting to identify the customer. (Id. at pp.22-23) Despite the fact that Sprint's <u>actual</u> flow through rate is only 51%, staff notes that Sprint assumes a flow-through rate of 85% for purposes of the cost study. (EXH 11, p.6) According to witness Davis, Sprint does not incorporate any costs associated with any error caused by a Sprint system issue into the NRC. (EXH 13, p.75) Additionally, flow-through percentages are based on the orders themselves and not what is being provisioned. (EXH 13, p.76) As flow-through percentages would be dependent such, on the information contained within an order, not on whether a particular order was for a two-wire analog loop or a DS3 loop. (Id.)

FDN proposes that the fallout rate be reduced to 2%, but fails to address why that particular fallout rate should be applied to Sprint in Florida. (FDN BR at 30-31) In support, FDN offers the fact that other state commissions have done so in similar proceedings. Even though system upgrades would reduce the amount of manual intervention, FDN notes that fallout could be reduced if Sprint analyzed high fallout areas within its OSS and made process

improvements. (BR at 31) According to FDN, Sprint's failure to use ". . . root cause analysis and crafting process flow diagrams . . " amounts to proof of Sprint's inefficient practices. (BR at 31) FDN also addresses its concern that there is a lack of supporting documentation for Sprint's proposed NRCs. In fact, FDN offers that for some charges, Sprint was unable to provide any documentation at all. (BR at 37)

Although staff is also troubled by the apparent lack of supporting documentation in certain areas, staff notes that even Sprint witness Davis acknowledges the speculative nature of this endeavor.(EXH 13, p.29; EXH 10, p.95) Witness Davis states,

. . . we are making these assumptions for [this] cost study because we want to make this as unintrusive as possible. We -- our, our feeling is [that] we've been very conservative in terms of the number of times we anticipate seeing errors and how much flow-through we expect to see. (EXH 13, p.25)

On balance, staff believes that Sprint's assumptions and inputs are generally reasonable, appear to adhere to the guidelines set by the FCC, and are consistent with previous orders of this Commission. Specifically, staff believes that Sprint's assumptions and inputs are correctly based on "the use of the most efficient telecommunications technology currently available" as specified in FCC rule 47 C.F.R. §51.505(b)(1). There is no requirement that Sprint, or any other ILEC, use some hypothetical, fully automated, near perfect OSS as FDN would have us believe.

Additionally, staff agrees with Sprint that its proposed assumptions and inputs are forward-looking, least-cost, and currently available. Even though the record is vague and lacks detailed information related to potential process improvement and system enhancements, staff believes that Sprint has made efforts to include them in its study. Staff notes that Sprint addressed several of these improvements (albeit briefly) in response to staff's discovery, stating,

These process improvements are generally intended to better handle ordering of unbundled network elements.

For example, the Integrated Request Entry System (IRES) automation of UNE-P orders to flow-through to the Service Order Entry (SOE) system and the Carrier Access Service System (CASS) is planned for 2002. (EXH 10, p.246)

Sprint seems poised to implement additional improvements as demand increases, and as it becomes more economically feasible for all parties.

## CONCLUSION

Staff believes the appropriate assumptions and inputs to be used in the forward-looking non-recurring UNE studies for determining network design, OSS design, and the mix of manual versus electronic activities are those set forth by Sprint. These assumptions and inputs should be used in conjunction with staff's recommended changes in all other applicable issues. In addition, these assumptions and inputs should be tempered by considerations of what is reasonably achievable.

İssue 8(c)

**ISSUE 8(c)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking non-recurring UNE cost studies?

(c) labor rates;

**<u>RECOMMENDATION</u>**: The appropriate assumptions and inputs for labor rates to be used in the forward-looking non-recurring UNE cost studies should be the labor rates proposed by Sprint. (Cater)

### POSITION OF THE PARTIES

**SPRINT**: Sprint's non-recurring labor rates associated with provisioning UNEs are specific to the job/position performing the work. These labor rates are Florida specific.

**FDN**: No position at this time.

KMC: No position.

**STAFF ANALYSIS**: In an interrogatory response Sprint defined loaded labor rate as "the total direct costs associated with one hour of labor for a specific job/position or work group. Specific rates are calculated for technicians, engineers, network planners, line workers, cable splicers, and other positions necessary to the provisioning and maintenance of Sprint's network." Sprint goes on to say that "[1]oaded labor rates are based on financial and operational data for the calender year 2000. Productive hours are divided into wage and overhead costs to arrive at an hourly loaded labor rate." (EXH 10, p. 77)

Interrogatory responses also indicate that travel time and various vehicle costs are associated with the loaded labor rates. (EXH 10, pp. 80-81)

Sprint witness Dickerson testifies that labor rates include a contribution to common costs. (TR 193) In its cost model documentation and testimony, Sprint provides the following examples of common costs: furniture, office equipment, general purpose computers, and corporate operations (EXH 2, ODC Module, p.3; Dickerson TR 81-82) In its Non-Recurring Cost Model, Sprint

provided a chart showing the loaded labor rates with and without a common cost percentage of 12.03 percent. (EXH 2, NRC Study, p.71)

In the BellSouth phase of this proceeding (Docket No. 990649A-TP), BellSouth did not include shared costs in its proposed labor rates, which were subsequently approved by this Commission. (Order No. PSC-01-1181-FOF-TP, pp. 333-335) BellSouth's reasoning for not including these costs in its labor rates was that in Docket Nos. 960833-TP, 960846-TP, and 960916-TP, the Commission eliminated them from non-recurring rates in Order No. PSC-96-1579-FOF-TP. In Order No. PSC-96-1579-FOF-TP, issued December 31, 1996, the shared cost component of labor rates is not mentioned; however, Order No. PSC-98-0604-FOF-TP, in Dockets Nos. 960757-TP, 960833-TP, and 960846-TP, contains the following concerning the inclusion of shared costs in labor rates:

[W]e find it appropriate for shared costs to be reflected by means of the shared cost factors. These costs shall not be associated with labor rates. This does not prohibit BellSouth from recovering these costs. It merely shifts the recovery of these costs from nonrecurring rates to recurring rates. (Order No. PSC-98-0604-FOF-TP, issued April 29, 1998 in Docket Nos. 960757, TP, 960833-TP and 960846-TP, p. 71)

In Order No. PSC-98-0604-FOF-TP, some examples of shared costs are ". . .human resources, office equipment, land and building space, and motor vehicles. . ." (Order No. PSC-98-0604-FOF-TP, p. 69) The Order continues by saying that the Commission was ". .unable to verify what portion of non-recurring costs should be included and whether all of the recurring expenses are excluded." (p. 71) Further, the Order states:

Based on the evidence, it appears that such recovery through non-recurring charges could create a barrier to entry. We do, however, recognize that this may not always be the case. Nevertheless, we believe that CLECs who face high non-recurring charges that must be paid to attract each new customer may be reluctant to enter the telecommunications market in Florida for that reason. (p. 71)

Staff would agree that high non-recurring charges can serve as a barrier to entry for competitive carriers. Staff also agrees that nothing should preclude Sprint from recovering its common costs. While higher non-recurring charges may serve as a barrier to entry for competitive carriers, there is difficulty in determining which common costs should be included or excluded from non-recurring costs. In addition, there is difficulty in determining whether or not an adjustment would allow Sprint to recover 100 percent of its common costs.

### CONCLUSION

Sprint is the only party that takes a position on this issue. Based on the limited record on this issue and the difficulty in separating out common costs, staff recommends that the appropriate assumptions and inputs for labor rates to be used in the forwardlooking non-recurring UNE cost studies should be the labor rates proposed by Sprint.

lssue 8(d)

**ISSUE 8(d)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking non-recurring UNE cost studies?

(d) required activities;

**<u>RECOMMENDATION</u>**: The appropriate assumptions and inputs for the required activities included in Sprint's Non-Recurring Cost(NRC) study are those recommended by Sprint. (Wright)

### POSITION OF THE PARTIES

**SPRINT**: The appropriate assumptions and inputs that should be used in the development of forward-looking, non-recurring costs are those set forth in the cost studies filed by Sprint-Florida on November 7, 2001, and as explained in the prefiled direct testimony of Sprint-Florida witnesses Kent Dickerson and Jimmy Davis.

**FDN**: Sprint's work times used in support of its NRCs were based on a combination of subject matter expert (SME) input and observation. The SME input was based on informal input from SMEs and are unreliable, biased, and not based on the use of efficient practices or forward-looking processes. What Sprint characterizes as "time and motion studies" was unstructured observation of technicians completing certain tasks and are also unreliable and not based on the use of forward-looking, efficient practices.

KMC: Agree with FDN.

**<u>Z-TEL</u>:** No position.

# STAFF ANALYSIS:

### SPRINT POSITION

According to Sprint witness Davis, Sprint assumed the use of Next Generation Digital Loop Carriers (NGDLCs) in the development of Non-Recurring Charges (NRCs) for unbundled loops and assumed the availability of a "fully automated" Operations Support System (OSS) for an ALEC to submit Local Service Requests (LSRs) to the Company. (TR 192)

Witness Davis states that the NRC study consists of four main steps:

- 1. Identifying the work activities or tasks necessary to complete service order, installation, and other related provisioning functions for each unbundled element.
- 2. Identifying the work times related to performing each function.
- 3. Identifying the labor rates for each work group that completes the activity and multiplying that amount by the time required to complete the activity.
- Grouping the costs by appropriate activities to develop a cost by unbundled network element. (TR 193)

Witness Davis lists three general categories of functions reflected in the study of non-recurring charges:

- 1. Service Order Charges.
- 2. Installation Charges.
- 3. Other Installation Charges. (TR 194)

Sprint has developed three categories of Service Order Charges which, besides Service Order Charges, include a Listing Only Charge and a Change Order Charge. A Listing Only Charge is for directory listings only and a Change Order Charge is applied when an ALEC requests a change in a port feature. (TR 194-195)

Sprint witness Davis states that the NRC study includes an Electronic Service Order Charge and a Manual Service Order Charge. Electronic Service Order Charges are applied to orders when an ALEC has elected to use Sprint's automated ordering platforms. (TR 195) Sprint utilizes the Integrated Request Entry System (IRES), a webbased online system for the entry of Local Service Requests (LSRs) by both internal and external customers. IRES utilizes the order generation logic from the Sprint Intelligent Computing Environment (SPICE) to create the service order in the Service Order Entry (SOE) system. (EXH 10, p. 252) According to witness Davis, the majority of the costs for electronic orders results from the

processing of orders that, due to errors in the data provided on the ALEC's Local Service Request (LSR), require some form of manual intervention to complete. (TR 195-196) Sprint's NRC study is based on 85% of electronic orders flowing through without manual intervention and 90% flowing through without any work necessary to properly identify the customer. (EXH 13, p. 23-24)

Witness Davis states that Manual Service Order Charges are applied when an order is not transmitted to Sprint through the automated Operation Support System (OSS), such as when an order is placed over the telephone or by facsimile. (TR 196) The manual service order charge recovers the cost of a Local Service Request (LSR). Work functions are weighted by frequency of occurrence to determine the composite cost. The Manual Service Order Charge includes the cost to:

- Clarify and correct errors on the LSR
- Establish major account for a Competitive Local Exchange Company (CLEC) in the Carrier Access Support System (CASS) or customer records and billing system (CRB).
- Enter order in the service order entry system (SOE)
- Apply service and equipment codes.
- Determine whether a CLEC order is for a second line or for a transfer of service from one CLEC to another.
- Complete billing service order and notify CLEC of completion. (EXH 2, p. 5)

Electronic Service Orders can include costs for:

- Clarify and correct errors on the LSR.
- Set up major account for new CLEC.
- Set up major account for an existing CLEC.
- Investigate working service cause, i.e. number in use and not a Sprint customer. (EXH 2, p.6)

Sprint's NRC study states that a Local Number Portability (LNP) charge recovers the cost of porting an existing customer to a CLEC when the customer requests service from a new service

provider and desires retention of a current telephone number. (EXH 2, p.6)

Witness Davis also testifies that the Installation Charge section of Sprint's NRC cost study is subcategorized into charges for 13 different UNE types, including loops, preorder loop qualification, loop conditioning, dark fiber, UNE-P, EELs, switching, features, customized routing, operator services and transport. (TR 199) Sprint's NRC study states that Sprint assumes fully automated processes for assignment, switch activation, order routing and dispatching of UNE orders, and although current flowthrough is not 100%, Sprint states that it has assumed no manual intervention costs for these activities when automatic flow-through does not occur. (Dickerson EXH 2, p.8)

Sprint's witness Davis proposes two possible installation charges for the loop subcategory of nonrecurring charges: New Install, and Re-install or Migrate. New install covers the cost of installing an unbundled loop for an ALEC's end user who is not an existing customer of Sprint. The charge will also apply to a loop where there is no existing "Cut Through" or "Dedicated Central Office Plant" in place. (TR 200) If there is no "Cut Through" it means that one or more field connections have to be made at a serving area interface or on a mainframe. (EX 13, p.87) The new install charge includes the cost of:

- Connections at cross-boxes, terminals and customer interface
- Travel to the beginning of the job.
- Installation of the NID.
- Pro-rated NGDLC remote activation.
- Placing and testing a Main Distribution Frame (MDF) Jumper. (EXH 2, p.11)

Re-install or migrate recovers the cost of installing an unbundled loop when an existing Sprint end user is migrating to an ALEC, or when there is an existing "Cut Through" or Dedicated Central Office Plant" in place. (TR 200) Re-install includes the cost of:

- Completion testing (cut-through, dedicated and vacant).
- Pro-rated NGDLC remote activation.
- Placing and testing an MDF Jumper.
- Connections at cross-boxes. (EXH 2, p.12)

Sprint also has Non-recurring charges that are categorized as "Other," which include:

- Originating Point Code (OPC) service. OPCs are generated to allow Sprint's Signaling System 7 (SS7) network to identify the originating point of a call. These charges are billed per each requirement.
- Global Title Transactions (GTT) charges apply for each service or application that utilizes transaction capabilities. This charge is for each GTT service request.
- 3. Network Interface Device (NID) installation is charged when a NID is installed.
- 4. Digital Loop Qualification Information Request.
- 5. Digital Data Loop Cooperative Testing.
- 6. Trouble Isolation charge, which is billed when a CLEC reports trouble on a facility and the trouble was not on Sprint's network.
- 7. The trip charge, which recovers the cost of an Installation and Repair technician's trip to perform work at the request of a CLEC.
- 8. Dark fiber end-to-end testing, which covers the cost to test dark fiber from end-to-end.
- 9. Tag and label service.
- 10. Non 10-digit trigger.
- 11. Coordinated Conversion after hours. (EXH 2, pp.41-45)

# FDN POSITION

Florida Digital Network (FDN) believes that Sprint's reliance on SMEs to estimate activity times presents a problem in that it is difficult to quantify the subjective nature of the SMEs' opinions. FDN states in its brief that because the NRC model results are so

closely tied to these SME opinions, the costs generated by the model are not reliable unless the responses are reliable and unbiased. FDN believes the weight of the evidence demonstrates that the survey results are unreliable and biased. (FDN BR at 33) It should be noted that FDN did not sponsor a witness and therefore no testimony was filed by FDN.

In their brief FDN points out that the BellSouth UNE order listed the following concerns regarding BellSouth's NRC cost studies:

- "As described previously, in some instances the SMEs had actually performed the work themselves, in others the SMEs had not. Time estimates were typically provided by the SMES to the cost group verbally but sometimes were provided via email. Apparently SMEs had the option of reviewing their inputs after the inputs had been placed into the cost study. We are troubled by the lack of a paper trail with regards to SME inputs. It makes it extremely difficult for us and the ALECs to analyze BellSouth's cost studies.";
- "Were the SMEs given instruction on how to proceed? It is difficult to tell, because different SMEs reported different approaches in determining the work activities and work times.";
- "BellSouth's SMEs did what they were told to do; that is, they developed or reviewed work activities and times based on their knowledge, experience, and observations. However, we believe that there is a higher standard that these cost studies must presumably meet. According to her testimony, BellSouth witness Caldwell apparently agrees, because she asserts that the same network designed for recurring costs should also be used for nonrecurring costs: 'forward-looking, reflect improvements, and should be attainable.'";
- "Were the SMEs told that this was to be a forward-looking study? If they were, it is not readily apparent from the depositions; the SMEs typically referred to the work as it is done today.";
- "Should BellSouth have performed time and motion studies for nonrecurring activities? We believe the answer is "perhaps," because time and motion studies imply that the activities to be studied are already known and agreed upon and that the

> parties are comfortable with BellSouth performing the time and motion studies.";

• "Was BellSouth's methodology for determining required work activities and times forward-looking? BellSouth apparently used the work activities and times in place based on the information available to the current SME. Neither BellSouth witnesses nor BellSouth SMEs testified to any directive given to the SMEs of how a forward-looking study should be done." (BellSouth UNE Order, pp.392-393, FDN BR at 33-34)

FDN believes that Sprint's NRC study raises most of these same concerns. FDN contends that there was no uniformity in the manner in which the SMEs were approached. Some information was taken over the phone, some information was elicited through meetings. (FDN BR at 33)

FDN states that the activities identified by Sprint for the NRC study were based on standard Sprint practices, so there was no effort to determine what forward-looking, efficient practices would be. FDN points out that numerous NRCs would rest on the subjective determination of one or two SMEs, and that the SMEs knew their responses would be used for UNE costing so the opportunity for subjective bias was very high. FDN alleges that, as with the designation of the work activities, there was no independent third-party review of the work times. (FDN BR at 35)

FDN cites the BellSouth UNE order that addresses its NRC study and states:

We share the Massachusetts Department of Telecommunications and Energy's (MDTE) concerns that the reliability of cost studies can be impaired if employees are not instructed to assume a forward-looking perspective. We also believe that it is completely natural for some bias to be introduced into a study where employees provide work times for activities that they know will be performed for a competitor. Similarly, we BellSouth's nonrecurring cost believe that study methodology may have flaws, and that any such flaws are likely to create an upward bias in resulting numbers. (FDN BR at 37 - Order No. 01-1181-FOF-TP)

FDN believes the Commission should make specific reductions or implement a general reduction across the board similar to what other commissions have done. (FDN BR at 37-38)

### STAFF ANALYSIS

# Work Activities

Sprint Florida consulted Subject Matter Experts (SMEs) with representation from each discipline and department, and identified the required steps or work activities for each UNE NRC. (EXH 10, p. 112)

# Average Time Per Work Function And Other Studies

Average Time Per Work Function studies were used to determine the time spent on certain activities identified in Sprint's NRC study. Four components that were used in several NRC UNEs in the study were Trip, Outside Plant Testing, Completion NID installation, and NID connections. The work times for these components were derived from observations associated with an Average Time Per Work Function conducted by Sprint Local's Customer Service Organization (CSO) in the fall of 2000. (EXH 10, p.115) These four components are used in several of the UNE NRCs, including 2-Wire and 4-Wire Analog Loop, 2-Wire and 4-Wire xDSL-Capable Loops, 2-Wire and 4-Wire Digital Loops, DS1 Service, 2-Wire and 4-Wire Sub Loop Distribution, and Other Charges Trip and NID. (EXH 10, pp.122-137)

The isolation test time is an input to the Trouble Isolation Charge and was derived from observations associated with an Average Time Per Work Function Study conducted by Sprint Local's Customer Services Organization in the fall of 2000. (EXH 10, p.115)

A time study was conducted to determine the average engineering time required to develop the work documents needed to remove load coils and to update Sprint's network records to reflect the removal of load coils. The study was conducted to determine engineering work times for support of loop conditioning for xDSL services. The average time to complete the steps taken by the engineering representative on the Engineering Work Order (EWO)

System was 29 minutes. An additional 15 minutes per order was added to cover miscellaneous clerical support. (EXH 10, p.193)

Average engineering time to unload a cable pair was determined by Sprint using the average of engineering times for 6 jobs gathered in August of 1999. This time is used in the Loop conditioning study along with 15 minutes of clerical support. (EX 10, p. 116)

Average times for the research cost and the administration cost for a Dark Fiber Quote Preparation Fee were determined using the average of engineering and field service management time for 12 dark fiber requests. These times were accumulated in the spring through early summer of 2001. (EXH 10, p.116)

The times for Carrier Access Support System (CASS) In Orders for EEL Loop and Transport Migration Work was derived by a carrier service center logging of orders processed in a 9 hour day. This information was provided verbally. The times for CASS Out Orders for EEL Loop and Transport Migration Work were derived by a carrier service center logging of orders entered and the amount of time to process. This information was provided via email. (EXH 10, p.116)

The times for non 10-digit trigger coordination and translations time used in non 10-digit Trigger Charge for Local Number Portability (LNP) were compiled from a Sprint study the week of March 5-16, 2001. (EXH 10, pp.116-117)

While Average Time Per Work Function studies were used to determine the average times for certain tasks, the documentation simply listed the times observed for each occurrence. Witness Davis explains the documentation provided in support of the studies in this way:

. . . if you're looking at the observed times for completion test, the important piece of information is that fourth column that's entitled "Completion Testing."

What happened on these observations, this was a very large project that the customer services organization did. It was an event that involved a couple of hundred technicians and 100 observers and they went out and observed a lot of things: safety, you name it. And along with these observations, they observed technicians performing completion tests, they observed technicians installing NIDs, connecting ground wires, and they had sheets that they recorded information on. And then it was brought back in and all the, the observed times were put into a database, and what you see here is a data dump of all the completion test observations made. (EXH 13, p. 41)

The relevant times used in the study for completion test, travel time, isolation test time, NID placement, grounding the NID, and reconnection in the NID are subsumed in the total task times included in the documentation provided. The total task beginning and ending times are reported in the study but the actual times used in calculating the average times per activity are simply based on a reported number with no corresponding beginning and ending times. (EXH 10, pp. 148-192) Average times were calculated by dividing the sum of the observed times by the number of occurrences. (EXH 10, p.154) Staff is concerned with the accuracy of the studies, because of errors in the task times reported based on the task time starting and ending times. For instance, the first line that staff reviewed for completion testing showed a task start time of 10:16 and a task end time of 11:27 which should be a total of 71 minutes but the study reports 111 minutes. Below is Table 8d-1 showing the times discussed above reported as part of Sprint's study:

TABLE 8(d)-1						
Tech ID	Task Time - Start	Task Time - End	Task Time - Total	Completion Testing		
7113	10:16	11:27	111	3		

Source: EXH 10, p. 150

The completion testing time of 3 minutes is provided by the SME with no beginning or ending times or other documentation.

Staff discovered several occurrences where the total task time was miscalculated or in the case of TECH ID 21124 no beginning or ending times for observed travel time were reported at all, even though a corresponding study time was reported as shown in the Table 8d-2 below:

TABLE 8 (d) -2						
Tech ID	Task Time - Start	Task Time - End	Task Time - Total	Travel Time		
21124	00:00	00:00	0.00	5		
21124	00:00	00:00	0.00	8		
21124	00:00	00:00	0.00	8		
21124	00:00	00:00	0.00	12		
21124	00:00	00:00	0.00	12		
21124	00:00	00:00	0.00	13		
21124	00:00	00:00	0.00	15		

Source: EXH 10, pp. 162-163

Witness Davis acknowledged that the task times could be off due to input errors of either the beginning or the ending time. (EXH 13, p.40) Though witness Davis states that the important piece of information is in the fourth column (entitled "Completion Testing" or "Travel Time" in the examples above), staff believes it may be that errors have also occurred in recording these times by the observer, but we have no way to be sure since the beginning and ending times for this column were not provided. (EXH 13, p.41; EXH 10, pp. 162-163)

# Subject Matter Experts (SMEs)

Similar to BellSouth's non-recurring cost studies, Sprint determined work activities, work times, and probabilities of occurrence for its nonrecurring cost studies using SMEs.

Sprint-Florida consulted SMEs with representation from each discipline and department and with varying work experience for each

UNE category. (EXH 11, pp.7-15) Several of the UNE NRCs were developed using input only from SMEs. In response to a request for Sprint to provide documents backing up percentage occurrences for various functions required in manual and electronic service order charges, the company responded that such documents did not exist. Sprint responded that a team of SMEs in service order receipt and validation identified the steps, the percentage of occurrences for the work steps involved, and the amount of time needed for each step. (EXH 10, p.95) Sprint referred to its response to staff's POD 19, which stated that it did not provide any documentation for UNE NRC categories "Service Order-Listing Only Manual and Electronic" and "Service Order-Change Order Manual and Electronic." (EXH 10, pp.119-120) Sprint did not provide support for many of the SME activity time estimates and probabilities included in their study.

SME input was also used exclusively for the following NRC UNEs:

- Service Order LNP
- Installation Charges High Capacity Loops DS3, OC3, OC12, and OC48
- Installation Charges Dark Fiber Loop
- Installation Charges Local Switch Customized Routing
- Centrex Features Feature Packages
- ISDN Features Feature Packages
- Installation Charges Dark Fiber Transport
- Installation Charges Digital Data Loop Cooperative Testing
- Installation Charges Dark Fiber Testing (EXH 10, pp.121-140)

For many of the remaining UNE NRCs, SMEs provide the inputs for several of the activities that are not determined by Average Time Per Work Function Studies or other studies, and also provided the probability percentages that the activities occur.

Sprint relied heavily on SMEs' input to determine the work activities, times, and probabilities for nonrecurring cost elements. Witness Davis states that a lot of this (NRC study) is speculative in terms of this whole process is fairly young. (EXH 13, p. 24) Witness Davis was not sure of the process the SMEs used in determining the times and percentages for manual and electronic

orders and when the times and percentages were determined since he has only been in the group since last June. (EXH 13, pp. 25-26) Sprint did not provide documentation for many of the NRC elements that are listed in its study. For example, for the various service order types there is no documentation supporting the SME inputs. (EXH 10, p.95) A majority of the other NRC costs are determined using a combination of Average Time Per Work Function studies and SME input or SME input only.

The inputs provided by the SMEs are not subject to independent The inputs from SMEs basically represent the verification. company's best judgement on the times that are used to determine a non-recurring cost. (Davis EXH 13, p. 82) Sprint did not use a third party consultant in determining the activities identified in (Davis EXH 13, p. 79) There is a lack of the NRC study. uniformity on how information was gathered from the SMEs and the instructions that were given to the SMEs. (EXH 13, p. 83) The SMEs often provided their estimates based on what they observed and not on what forward-looking, efficient practices would produce. (EXH Staff believes that it is only natural that the 13, p. 83-84) SMEs, being aware of what the NRC study is used for, would tend to bias their inputs in favor of higher NRC costs.

Staff struggled with how best to evaluate the work times included in Sprint's non-recurring activity times and corresponding charges due to the fact that no parties filed testimony on this Staff compared Sprint's rates with BellSouth's rates issue. approved in Order No. PSC 01-2051-FOF-TP to determine the Sprint's proposed Non-recurring of charges. reasonableness Generally, we believe Sprint's NRC rates are within a range of reasonableness compared to the BellSouth rates as approved in Commission Order No. PSC-01-2051-FOF-TL. Witness Davis states in his direct testimony that in most cases the work times that were ordered for BellSouth are higher than the work times reflected in Sprint's filed NRC study. (TR 214) Staff would note that comparing NRC rates between companies can some times be problematic. For example, for a two-wire analog loop, first or new line, Sprint is proposing a rate of \$119.74. BellSouth has an approved NRC rate of \$49.57, based on Appendix A of Order No. PSC-01-2051-FOF-TP, for service level 1 and a NRC rate of \$135.75 for service level 2 for Service level two includes certain a two-wire analog loop.

engineering costs such as a design layout record. After reviewing Sprint's NRC study, it is not clear to staff whether Sprint's \$119.74 NRC charge is comparable to BellSouth's service level 1 or 2 for two-wire analog service. On balance, staff believes that Sprint's NRC activity times and resulting NRC rates are within a range of reasonableness and recommend they be adopted as filed.

### CONCLUSION

Staff would recommend that the NRC minutes per NRC element and resulting NRC charges be accepted for Sprint as filed. Though there are weaknesses in Sprint's NRC study, including a lack of supporting documentation for the study, errors in Sprint's Average Time Per Work Function Study, and the subjectivity of the SMEs' time and probability estimates, there has been no other evidence filed by parties, other than FDN's brief. Sprint's NRC rates fall within a range of reasonableness based on a comparison with BellSouth's approved NRC rates.

Issue 8(f)

**ISSUE 8(f)**: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking non-recurring UNE cost studies?

(f) other.

**RECOMMENDATION:** All matters raised by the parties have been addressed in other issues. Accordingly, no action is needed with regard to this issue. **(T. Brown)** 

## POSITION OF THE PARTIES

**<u>SPRINT</u>**: Sprint-Florida has not identified any "other" inputs to its non-recurring cost study.

**FDN**: Sprint's work times used in support of its NRCs were based on a combination of subject matter expert ("SME") input and observation. The SME input was based on informal input from SMEs and are unreliable, biased, and not based on the use of efficient practices or forward-looking processes. What Sprint characterizes as "time and motion studies" was unstructured observation of technicians completing certain tasks and are also unreliable and not based on forward-looking, efficient practices.

 $\underline{\text{KMC}}$ : KMC concurs with the position and analysis of Florida Digital Network (FDN).

# STAFF ANALYSIS:

The issue before this Commission is to determine the appropriate assumptions and inputs for any other items that are to be used in the forward-looking non-recurring UNE cost studies.

### PARTIES' ARGUMENTS

Sprint witness Davis states that "[t]he purpose of [his] testimony is to support the Sprint-Florida, Inc. (Sprint) 'Non-Recurring Charge (NRC) Study' and to explain the assumptions made and principles utilized in development of the NRCs associated with ordering and installing Unbundled Network Elements (UNEs)." (TR 190) He goes on to state, "[d]ue to the quantity of NRCs involved

with this proceeding, I will only address the categories and/or particular items that warrant discussion due to the complexity of the subject and/or costing methodology." (TR 190) Witness Davis also asserts that his testimony "<u>addresses in whole, issues #8, #10</u> and #11 . . ." (emphasis added) (TR 190) Witness Davis never addresses Issue 8(f) in his testimony, and the record regarding 8(f) is non-existent. Furthermore, Sprint states that "[n]either Sprint-Florida, nor any other party identified any 'other' inputs to the recurring cost study." (Sprint BR at 57)

Although no testimony directly related to this issue is presented, FDN provides a lengthy discussion on the validity of certain inputs and the resulting rates in its post-hearing brief. (FDN BR at 32) FDN also proposes and offers support for reducing the NRCs which were based on Sprint's figures. (Id. at 38) Throughout these discussions, however, no specific reference to Issue 8(f) was ever made.

#### ANALYSIS

Staff agrees with Sprint that neither Sprint nor any other party has proposed any "other" inputs for consideration. (BR at 57)

Furthermore, staff believes that the arguments raised by FDN in its post-hearing brief under Issue 8 have been addressed in other issues, specifically 8(d) and 8(e). In support, staff notes that FDN's discussion in its post-hearing brief appears to be proffered in support of its positions in Issues 8(d) and 8(e), <u>not</u> 8(f). FDN never specifically addresses Issue 8(f) in the record, or in its brief. Instead, FDN raises concerns relating to work times, observations, and subject matter experts (SMEs). As such, staff believes that each of these concerns has been discussed as they relate to the proper inputs and assumptions associated with specific issues, and need not be addressed again here.

### CONCLUSION

All matters raised by the parties have been addressed in other issues. Accordingly, no action is needed with regard to this issue.

Issue 9(a)

**ISSUE 9(a)**: What are the appropriate recurring rates (averaged or deaveraged as the case may be) and non-recurring charges for each of the following UNEs?

- (1) 2-wire voice grade loop;
- (2) 4-wire analog loop;
- (3) 2-wire ISDN/DSL loop;
- (4) 2-wire xDSL-capable loop;
- (5) 4-wire xDSL-capable loop;
- (6) 4-wire 56 kbps loop;
- (7) 4-wire 64 kbps loop;
- (8) DS-1 loop;
- (9) high capacity loops (DS3 and above);
- (10) dark fiber loop;
- (11) subloop elements (to the extent required by the Commission in Issue 4);
- (12) network interface devices;
- (13) circuit switching (where required);
- (14) packet switching (where required);
- (15) shared interoffice transmission;
- (16) dedicated interoffice transmission;
- (17) dark fiber interoffice facilities;
- (18) signaling networks and call-related databases;
- (19) OS/DA (where required).

**<u>RECOMMENDATION</u>**: Staff's recommended recurring and non-recurring rates are contained in Appendix A. (J-E Brown, T. Brown, Cater, Davis, Dowds, Kenny, King, Lee, Lester, Marsh, Wright)

### POSITION OF THE PARTIES

**SPRINT**: The appropriate recurring and non-recurring rates for the listed UNEs (where required) and interconnection at issue in this proceeding are set forth in Composite Ex. 1, Revised Exs. MRH-1, MRH-2, MRH-3 and MRH-4 to the prefiled direct testimony of Michael R. Hunsucker, dated November 7, 2001, and in the Revised Exs. MRH-1 and MRH-2 to the supplemental direct testimony of Michael R. Hunsucker, dated April 10, 2002. The appropriateness of these rates is discussed in Mr. Hunsucker's direct and supplemental direct testimony.

**FDN**: The Commission should adjust Sprint's recurring UNE rates and nonrecurring UNE rates to correct for the errors noted above. For loops served by Sprint's remote switches, the Commission should require Sprint to charge the applicable UNE loop recurring and nonrecurring rates.

**KMC**: UNEs should be priced at a level that enables ALECs to purchase them and effectively compete.

**STAFF ANALYSIS**: Staff's recommended recurring and non-recurring rates are contained in Appendix A. The rates reflect re-running the appropriate cost model(s) to incorporate staff's recommended inputs, and then re-running the Sprint TELRIC UNE Model to yield staff's proposed rates. The rates in Appendix A also reflect, where applicable, the specific rate design recommendations made in certain other issues (e.g., staff's recommended deaveraging proposal).

Issue 9(b)

**ISSUE 9(b)**: Subject to the standards of the FCC's Third Report and Order, should the Commission require ILECs to unbundle any other elements or combinations of elements? If so, what are they and how should they be priced?

**<u>RECOMMENDATION</u>**: No, there are no other elements or combinations of elements that the Commission should require ILECs to unbundle at this time. (Wright)

## POSITION OF THE PARTIES

SPRINT: No.

**FDN**: The Commission should require Sprint to conform its combinations offerings to the ruling of U.S. Supreme Court in <u>Verizon v. FCC</u> and FCC's combination rules. If the Commission decides to initiate a proceeding to investigate a new broadband UNE the proceeding should apply to all Florida ILECs.

KMC: Agree with FDN.

**<u>Z-TEL</u>**: No position.

STAFF ANALYSIS: Sprint witness Hunsucker states that in its Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 96-98, released December 9, 1999, the FCC added to its list of UNEs, the requirement for incumbent LECs to unbundle the high frequency portion of the loop spectrum, an arrangement commonly referred to as "line sharing." It is Sprint's understanding that the Commission will initiate a separate proceeding to determine rates for this UNE. Also, the FCC has defined Operational Support Systems (OSS) as an unbundled network element. The rates for OSS cost recovery are to be addressed in a separate proceeding, and are not included in this filing. (TR 43) Witness Hunsucker believes that there are no other UNEs that the Commission should require ILECs to unbundle in this proceeding. (TR 43 - 44

FDN believes the Commission should take notice of the U.S. Supreme Court's decision in <u>Verizon Communications</u>, <u>Inc. et al. v.</u> <u>Federal Communications Commission</u>, et al., 152 L. Ed. 2d 701, 122

S. Ct. 1646 (2002) that, among other things, validates the rights of ALECs to obtain combinations of unbundled network elements. The Supreme Court in Verizon determined that the Eighth Circuit erred in invalidating the FCC's additional combination rules, Rules 51.315(c)-(f). FDN states that "Rules 51.315(e) and (f) place the burden on an ILEC seeking to deny a requested combination to demonstrate that the combination is not technically feasible or would impair the ability of other carriers to obtain access to unbundled network elements or to interconnect with the incumbent LEC's network." (BR at 43) FDN states that:

The record in this case reveals that Sprint does not (1) offer a product whereby ALEC UNE-L or UNE-P voice service may be offered over the same line as Sprint high-speed data service or (2) generally offer to ALEC's packet switching as a UNE. . . In the BellSouth phase of this case, AT&T and MCI proposed the Commission investigate creating a new broadband UNE. Accordingly, if the Commission does initiate such an investigation, FDN believes all Florida ILECs should be included in this review. (FDN BR at 44-45)

Staff recognizes that the Commission is bound by the terms of the Supreme Court's decision in <u>Verizon vs. FCC</u> but we do not believe any specific actions are required at this time. Other than line sharing and OSS, no other elements or combinations have been identified in this proceeding such that the Commission should require Sprint to unbundle them. Line sharing and OSS are specifically excluded from consideration in this proceeding because of the stipulation that Sprint and the parties signed. There in no evidence in the record supporting any impairment analysis regarding UNE-L or UNE-P voice service being offered over Sprint high speed data service or packet switching as a UNE.

## CONCLUSION

Staff recommends that the Commission require no other elements or combinations of elements be unbundled by ILECs at this time.

Issue 10

**ISSUE 10**: What is the appropriate rate, if any, for customized routing?

**<u>RECOMMENDATION</u>**: Staff believes that the customized routing rates proposed by Sprint are appropriate. **(T. Brown)** 

#### POSITION OF THE PARTIES

**SPRINT**: Sprint-Florida proposes three non-recurring charges for customized routing, namely; switch analysis charge, host switch translations and remote switch translations. These charges are set forth in the Cost Study, Composite Ex. 2, Ex. KWD-2, Volume I of III, Tab VIII. NRC, pages 26 and 27.

**FDN**: No position at this time.

KMC: No position.

## **STAFF ANALYSIS**:

The issue before this Commission is to determine the appropriate rates, if any, for customized routing. Staff notes that Sprint was the only party to testify on this issue.

#### ARGUMENT

According to Sprint's NRC Cost Study, Sprint defines customized routing as:

Customized routing permits requesting carriers to designate the particular outgoing trunks that will carry certain classes of traffic originating from the CLEC's customers. This permits the carrier to self-provide, or select among other providers of interoffice facilities, operator assistance (OA) services and directory assistance (DA). Customized routing is generally technically feasible, but varies from switch to switch based on capacity constraints. (EXH 2, Vol. I, Tab VIII, p.26)

Sprint witness Davis proposes three separate non-recurring charges for customized routing. (TR 201) The non-recurring charges that witness Davis identifies are: (1) the switch analysis charge, (2) host switch translations, and (3) remote switch translations. (TR 201) Sprint's NRC Cost Study defines those as:

## Switch Analysis Charge

A switch analysis procedure to determine OA/DA branding capacity in a switch. The applicant is responsible for these charges whether capacity does or does not exist in the analyzed switch. This charge will also apply to remote switches should the applicant request a different dialing plan in the remote than exists in the host switch. This charge includes the costs of:

• Translation engineering cost.

## Host Switch Translations Charge

Charge for installing translations in the host switch that will direct OA/DA originating traffic from the switch to a dedicated trunk designated by the applicant. The charge includes the costs of:

• Translation engineering cost.

## Remote Switch Translations Charge

Charge for installing translations in a remote switch if separate dialing plans are required from those in the host switch. This charge includes the costs of:

• Translation engineering cost. (EXH 2, Vol. I, Tab VIII, pp.26-27)

Sprint has proposed rates for the three customized routing charges identified and described above. Sprint's proposed NRCs for these charges are:

- switch analysis, \$119.74
- host switch translations, \$2,394.81
- remote switch translations, \$1,796.10

(EXH 2, Vol. II, Tab IX(NRC), pp.7, 47).

Describing those charges during his deposition, witness Davis states:

. . . host switch translation and remote switch translations, your host switch is a larger office that has more feature support. Remote switches are connected to these host switches in terms of what we call a switching hierarchy.

A call may originate on, what we call the field side of the remote switch, travel to the remote switch, go up to the host switch, leave the host switch and go beyond. The point is that the host switch is more complicated, has more stuff going on, has more activity in terms of supporting features and that sort of thing. (EXH 13, p.69)

Witness Davis contends that switch analysis, and the corresponding charge, is based on research performed by translation engineers ". . . to see if something can be done." (Id.) The charge is comprised of ". . . time that's spent by a translations engineer priced out against the labor for that translations engineer." (Id. at p.70)

Witness Davis states that customized routing has been requested, stating "[w]e have been working with a customer in Nevada." (EXH 13, p.70) However, it has not been requested in Florida. (Id. at 70) He goes on to state that customized routing ". . . could be anything." (Id. at p.69) Witness Davis states,

I mean, the case, in the case of Nevada, we're talking about operator services. But it could be something else. (Id. at p.71)

When and if a party requests customized routing, witness Davis contends that the party ". . . would contact our business and wholesale marketing group and work through a product manager." (EXH 13, p.70) According to witness Davis, "[o]nly those charges applicable to a specific customized routing request would apply." (TR 201)

#### ANALYSIS

Staff notes that the record relating to this issue is limited. The only party to file testimony on this particular issue was Sprint. As such, staff agrees with Sprint's statement in its posthearing brief which states "Sprint-Florida's Position and record evidence on Issue 10 is unopposed by any other party." (Sprint BR at 65)

Based on the record, staff believes that rates and charges applicable to a request for customized routing should be determined based on ". . . a specific customized routing request." (TR 201) Such requests should utilize the processes and rates outlined above and as described in Sprint's NRC Cost Study. As such, staff sees no benefit in determining a set of "generic" rates for all possible customized routing combinations at this point, especially given the fact that customized routing appears to be so infrequently requested and the charges could vary depending on the nature of the Staff agrees with witness Davis that, "[o]nly those request. charges applicable to a specific customized routing request would apply." (TR 201) Although staff believes that additional charges may result from a customized routing request, it is impossible to know what charges might apply without an actual request. As such, staff recommends that the customized routing rates proposed by Sprint are appropriate.

## CONCLUSION

Staff believes that the customized routing rates proposed by Sprint are appropriate.

lssue 11(a)

**ISSUE 11(a)**: What is the appropriate rate if any, for line conditioning, and in what situations should the rate apply?

**<u>RECOMMENDATION</u>**: The appropriate rates for line conditioning are those recommended by staff in Appendix A. (King)

## POSITION OF THE PARTIES

**SPRINT**: The appropriate rate for line conditioning is that rate which compensates Sprint-Florida for the work performed at the ALEC's request to provide a facility that will allow for transmission of high-speed digital service, such as DSL. This rate should apply in each instance in which inhibiting network components are present in the loop.

**FDN**: A forward-looking network would not require voice-enhancing devices (i.e., disturbers such as load coils and repeaters) and use of bridged tap on loops. If the Commission nevertheless allows a charge for loop conditioning, the charge should be based on the assumption that multiple loops will be conditioned at a time, regardless of loop length. The charge should also be assessed as a recurring charge.

**KMC**: KMC concurs with the position and analysis of Florida Digital Network (FDN).

## STAFF ANALYSIS:

Paragraph 172 of the FCC's <u>UNE Remand Order</u> states:

We clarify that incumbent LECs are required to condition loops so as to allow requesting carriers to offer advanced services. The terms "conditioned," "clean copper," "xDSL-capable" and "basic" loops all describe copper loops from which bridge taps, low-pass filters, range extenders, and similar devices have been removed. Incumbent LECs add these devices to the basic copper loop to gain architectural flexibility and improve voice transmission capability. Such devices, however, diminish the loop's capability to deliver advanced services, and thus preclude the requesting carrier from gaining full use of the loop's capabilities. Loop conditioning requires the incumbent LEC to remove these devices, paring down the loop to its basic form. (FCC Order 99-238)

Line conditioning or loop conditioning is the process that may be used in conjunction with loop qualification<sup>15</sup> for provisioning an xDSL-capable loop, line sharing or a digital loop. (Davis TR 202; EXH 2, NRC Cost Study, p. 14) According to Sprint witness Davis, after receiving loop make-up data, it is the customer's option to request loop conditioning. Loop conditioning includes the necessary work in the outside plant to provide a facility that will allow the transmission of high-speed digital service, such as DSL. (TR 202) This work may include the removal of load coils, repeaters or bridged taps. (TR 202-203)

## LOAD COILS

Sprint witness Davis explains that load coils are placed at regular intervals on copper cable pairs that are 18,000 feet or longer. (TR 203) The purpose of a load coil is to improve the transmission quality for voice grade services on the longer pairs by reducing the signal loss caused by the capacitance of the telephone cable. Copper pairs that are less than 18,000 feet long do not require loading to provide voice grade services. (Davis TR 203) However, load coils may be present on loops under 18,000 feet. (EXH 10, p. 75) As explained in Sprint's response to staff discovery:

Load coils remain in some loops measuring under 18kft in situations where the pair was once used to serve a customer located beyond 18kft thus requiring load coils for voice services. As customers leave and others enter Sprint's serving area, these pairs are sometimes reassigned to customers residing within 18kft of the central office or being served by a recently placed digital loop carrier. These now shorter loops may have load coils remaining on them because it would not be

<sup>&</sup>lt;sup>15</sup>Loop qualification (a.k.a. loop make-up) is addressed in Issue 11(b).

necessary to remove them for just voice service. (EXH 10, p. 75)

Because load coils will block the transmission of digital services, including xDSL-based services, for both copper-fed and NGDLCprovisioned xDSL-capable loops, forward-looking networks are designed with loops that are short enough to avoid the need for load coils. (TR 203)

According to Sprint witness Davis, when deloading a pair the load coil generally is not actually removed; it is iust disconnected from the cable pair. (TR 204) The witness explains that this involves snipping off the wires that connect the coil to the cable pair and then reconnecting the two ends of the cable pair. He notes that in larger cables this may involve removing a connector that splices twenty-five pairs at a time, pulling out the load coil wires and replacing the connector. (TR 204) Witness Davis acknowledges that the actual work time involved in making the connections is no more than a minute or two, but set-up time can be significant, particularly when working in manholes. For this reason, Sprint will unload multiple pairs at one time when working on loops under 18,000 feet in length, instead of unloading only the pair required for the current order. (TR 204)

## REPEATERS

A repeater is generally used to amplify a signal over a copper loop. (TR 204) Without such amplification, the signal will decay over distance. The types of repeaters that are found in cable plant are not used for voice grade circuits. Witness Davis explains that they are specialized modifications to the voice network that are installed to support digital services such as T1 and ISDN. (TR 204) As with load coils, the existence of a repeater will interfere with xDSL signals.

## BRIDGED TAP

Bridged tap is any piece of the cable pair that is not in the direct path between the customer and the switching device. (Davis TR 205) Like load coils and repeaters, bridged tap is an issue

because it degrades the quality of any type of signal. According to witness Davis, this issue is magnified when xDSL is placed on a loop. (TR 205) For voice transmission on a non-loaded Revised Resistance Design (RRD) cable pair, bridged tap cannot exceed 6,000 feet. Sprint utilizes industry standard Carrier Serving Area (CSA) guidelines which limit total bridged tap to 2,500 feet, with no single bridged tap exceeding 2,000 feet for DSL capable loops. (TR 205)

As is the case with load coil removal, generally no plant is actually removed when bridged tap is eliminated. (TR 206) Witness Davis explains that the two wires of the cable pair are simply cut off and capped. Sprint's position is that excessive bridged tap can be removed the majority of the time in above ground enclosures like the customer's serving terminal (where the customer's drop wire connects to the distribution cable). (TR 206) Also, witness Davis notes that it is not possible to consistently remove bridged taps in multiple quantities. He explains that bridged taps occur at random in Sprint's network, rather than in 25-pair complements like load coils. (TR 206) Many locations may only have one bridged tap in a particular splice. (Davis TR 206)

## ALEC'S PROPOSAL

No ALEC witness testified on this issue. However, FDN filed a post-hearing brief which included a position statement and argument. Specifically, FDN argues that the FPSC should reaffirm its ruling from the BellSouth UNE proceeding (Docket No. 990649A-TP) that for loops under 18,000 feet, the charges for loop conditioning should be eliminated. In addition, FDN argues that the same decision should apply to loops over 18,000 feet. (FDN BR at 45) However, FDN believes that if the Commission decides to allow Sprint to charge for loop conditioning, it should require Sprint to condition multiple loops at a time for loops of all lengths. (BR at 48) FDN makes it clear that it is not suggesting that any of the loops currently in use by POTS customers be part of the multiple loops conditioned. It is suggesting that only a portion of the spare pairs, or pairs not currently in use, be part of a multiple conditioning effort. As such, FDN believes existing customers would not be impacted in any way. (FDN BR at 48-49)

## SPRINT'S PROPOSAL

Sprint has proposed the following loop conditioning elements:

- Loop Conditioning Per Line (load coil removal for loops under 18kft)
- Loop Conditioning Per Location (load coil removal for loops over 18kft)
- Bridged Tap Removal Any Loop Length
- Repeater Removal Any Loop Length (EXH 1, Revised MRH-1, pp. 2-3)

Sprint's proposed rates for its various conditioning elements can be found in Appendix A.

As explained in Sprint's cost model documentation, its study develops the one-time, non-recurring labor expense associated with conditioning an unbundled loop. This rate is applied when inhibiting network components (i.e., load coils, repeaters, etc.) are present in the loop and the customer still desires a DSLcapable loop. This rate element removes those inhibiting items. (EXH 2, NRC Cost Study Narrative, p. 14)

Sprint witness Davis notes that Sprint's loop conditioning cost methodology is based upon unit costs contained in current contracts Sprint has with outside plant contractors in Florida to perform the work necessary to condition cable pairs. (TR 207) For load coil removal on loops over 18,000 feet, all bridged tap, and repeater removals, the costs are determined on a per location basis, dependent upon the type of outside plant facilities (underground, aerial or buried). Witness Davis believes that this methodology enables Sprint to recover costs that vary with the different types of plant conditions encountered when performing loop conditioning activities. (TR 207) For instance, he notes that it is more time-consuming to perform loop conditioning activities in manholes than it is to perform the same procedures on aerial or buried outside plant (OSP) facilities. (TR 207) In addition, unlike the aerial and buried OSP environments, a single technician cannot perform conditioning activities in manholes because a minimum of two technicians is required for safety reasons. Furthermore, additional time is required for pumping out water and

purging potentially dangerous gases. These actions are not required when working in aerial and buried OSP facilities. (TR 207-208) The witness also states that manholes are usually located and accessed in city streets; therefore, there are additional costs associated with setting up traffic control, as opposed to aerial and buried environments where utility trucks can usually pull off the roadway. (Davis TR 208)

Sprint's study assumes that the majority of cable pair access locations involves quick and easy access to the cable pairs via "ready access" splice enclosures when working in both aerial and buried plant facilities. (TR 208) Sprint's costing methodology accounts for the significant labor cost differences associated with accessing cable pairs to perform loop conditioning activities when working in different OSP environments. Witness Davis explains that in order to avoid a double counting problem with engineering and travel time when multiple conditioning activities occur on one cable pair, Sprint calculated a separate one time per loop charge for "Engineering" and "Travel." (TR 208)

According to witness Davis, Sprint offers an alternate. TELRIC-based view of load coil removal for loops under 18,000 feet in length. (TR 208) He notes that because cable pairs are generally loaded in groups of 25, and loading is not required at all on loops under 18,000 feet, separate costs were determined based on a more efficient load coil removal process. He believes that it is reasonable to spread the fixed costs of accessing the cable pairs across all pairs that would be unloaded in a 25 pair binder group. (TR 208-209) Specifically, the incremental labor costs associated with unloading 24 more cable pairs (under 18,000 feet) was added to a single engineering and travel charge and then divided by 25 to determine the cost per pair for the entire binder group. Witness Davis believes that the costing methodology utilized by Sprint represents the "least-cost, most efficient" standard established by the FCC. (Davis TR 209)

## APPROPRIATE RATES FOR LOOP CONDITIONING

Sprint witness Davis believes that TELRIC principles can be applied to loop conditioning non-recurring cost methodologies. (TR 201) He notes that the FCC has found that pricing on the basis of

forward-looking costs is a key element in fostering competition in the local services market. Specifically, he points to Sections 51.319(a)(3)(B) and (C) of the FCC's Rules, which state that line conditioning costs must be recovered "in accordance with the Commission's forward-looking pricing principles . . .," and that ILECs shall recover nonrecurring loop conditioning costs "in compliance with rules governing nonrecurring costs in Section 51.507(e)," that is, based on an ILEC's forward-looking economic costs. (TR 201-202) The witness asserts that these TELRIC pricing principles should be followed with respect to costs associated with load coil removal on loops that are shorter than 18,000 feet. While bridged tap and repeater removals must be accomplished on a per loop basis, load coil removals for loops shorter than 18,000 feet can be accomplished most efficiently by performing the work on a bulk-basis. (TR 202)

Witness Davis reiterates that an efficient service provider should develop charges for loop conditioning that are based on TELRIC principles, recognizing logical economies of scale and least-cost methodologies, including an assumption that the ILEC will remove load coils in groups of at least 25 at a time for loops shorter than 18,000 feet. (TR 202)

Regarding the issue of compensation for loop conditioning, the FCC stated in Order FCC 99-238 (the UNE Remand Order):

In the Local Competition First Report and Order, the Commission also stated that requesting carriers would incumbent LECs compensate the for the cost of conditioning the loop. Covad and Rhythms argue that, because loops under 18,000 feet generally should not require devices to enhance voice-transmission, the requesting party should not be required to compensate the incumbent for removing such devices on lines of that length or shorter.

. . .

We agree that networks built today normally should not require voice-transmission enhancing devices on loops of 18,000 feet or shorter. Nevertheless, the devices are sometimes present on such loops, and the incumbent LEC may incur costs in removing them. Thus, under our rules, the incumbent should be able to charge for conditioning such loops.

••••

We recognize, however, that the charges incumbent LECs impose to condition loops represent sunk costs to the competitive LEC, and that these costs may constitute a barrier to offering xDSL services. We also recognize that incumbent LECs may have an incentive to inflate the charge for line conditioning by including additional common and overhead costs, as well as profits. We defer to the states to ensure that the costs incumbents impose on competitors for line conditioning are in compliance with our pricing rules for nonrecurring costs. (FCC Order 99-238 at ¶¶ 192-194)

# Load Coil Removal - Loops shorter than 18,000 feet

As noted above, Sprint considers it reasonable to spread the fixed costs of accessing the cable pair across all the pairs that would be unloaded in a 25-pair binder group. (EXH 2, NRC Cost Study, p. 14) Specifically, the incremental labor costs associated with unloading 24 additional cable pairs are added to a single engineering and travel charge and then divided by 25 to determine the cost per pair for the entire binder group. This cost was then adjusted based upon the feeder fill percentage. In the Sprint study, it is assumed that two load point locations would exist for loops under 18,000 feet, and are based on the frequency of occurrence of underground, aerial, and buried outside plant facilities encountered at these first two load point locations. Sprint believes that this enabled the determination of a realistic weighted average cost to de-load loops shorter than 18 kft. (EXH 2, NRC Cost Study, p. 14) The weighted average cost was then multiplied by the percentage of loaded loops. This charge also includes the costs of:

- engineering charge
- trip charge

• splicing contractors per work unit negotiated contract rate. (EXH 2, NRC Cost Study, p. 14)

Only 3.2% of Sprint's loops in Florida measuring less than 18kft contain load coils. (EXH 10, p. 75)

In general, staff agrees with Sprint's approach for determining costs for removing load coils on loops less than 18,000 feet. Primarily, staff agrees that if the Commission chooses to set rates for load coil removal on loops under 18,000 feet, that differentiating by OSP types and conditioning multiple pairs is most efficient. However, as noted by Florida Digital Network (FDN) in its brief: "The Commission has previously determined that for loops shorter than 18,000 feet, the charges for loop conditioning should be eliminated. The Commission found that such charges do not appear to be consistent with a forward-looking cost methodology<sup>16</sup>." (FDN BR at 45)

Specifically, in the decision alluded to by FDN, the Commission found (in pertinent part):

. . . loop conditioning for short loops, element A.17.1, shall be eliminated. Based on the record, this does not appear to be consistent with a forward-looking cost methodology.

Nevertheless, for loops shorter than 18 Kft., loop conditioning does not appear to be consistent with a forward-looking cost methodology.

. . .

Therefore, upon consideration, we shall set rates for the loop modification elements, with the exception of A.17.1. (PSC-01-1181-FOF-TP, BellSouth UNE Order, Issued May 25, 2001, pp. 459-460)

<sup>&</sup>lt;sup>16</sup>BellSouth UNE Order at 459. (FDN BR at 45)

In addition, in its Order on Reconsideration the Commission found:

Upon consideration, we find that BellSouth has not identified a mistake of fact or law in our decision on this point. As recognized in our Order at p. 459, "Nevertheless, for loops shorter than 18 Kft., loop conditioning does not appear to be consistent with a forward-looking cost methodology." We emphasize that there was extensive discussion regarding this issue at the April 18, 2001, Agenda Conference. As clearly stated in the Order, we made our decision to reject nonrecurring charges for load coil removal on short loops based upon a policy decision that a forward-looking network would not have load coils on short loops. BellSouth has not identified anything we overlooked, and in fact, acknowledges that short loops in a forward-looking network would not have load coils on them. As such, BellSouth's Motion on this point shall be denied. (emphasis added) (PSC-01-2051-FOF-TP, BellSouth UNE Reconsideration Order, Issue October 18, 2001, p. 15)

As part of staff's discovery, Sprint was asked:

Please explain what circumstances, if any, should result in the FPSC reaching a different decision than that reached in Order PSC-01-1181-FOF-TP and PSC-01-0251-FOF-TP regarding the applicable rate for removing load coils from loops under 18kft.

The company replied:

According to the FCC's Third Report and Order, paragraphs 192-193, ILEC's [sic], like Sprint-Florida, are allowed to recover the cost of loop conditioning. Sprint has filed a NRC for load coil removal based on this ruling. Sprint's study incorporates the efficiencies of 25 pair economies and spreads this cost over all DSL capable loops which ensure that these costs are being shared by all uses of these loops, including Sprint-Florida's own DSL customers. Also as explained previously in response to interrogatory 21(a), load coils do sometimes exist on loops shorter then 18kft in situations where the pair was once part of a loop longer than 18kft. (EXH 10, p. 76)

At his April 5, 2002, deposition witness Davis was asked if he would agree that the Commission decided in its BellSouth UNE Order that there should not be a charge to remove load coils from loops under 18 kilofeet. He responded, "That is what I read, yes." (EXH 13, p. 12) In addition, the witness was asked to read several pages from the BellSouth UNE Order. He was then asked a series of questions based on what he read. Those questions and answers are reproduced below:

- Q. Okay. Would you agree from what you read on the previous pages that the Commission took into consideration the testimony of Sprint witness McMahon and FCC Order 99-238 in reaching its decision?
- A. I'm sorry. Repeat your question, please.
- Q. Would you agree that the other two pages that I had you read about the Sprint testimony of Witness McMahon and the FCC order, that the Commission took into consideration those arguments in reaching its decision that there should not be a charge for removing load coils?
- A. The FCC also talked about the fact that there are load coils in the embedded plant and that under their rules that ILECs do have the right to recover the cost for removing those inhibitors, including the load coils.
- Q. But would you agree that the Commission considered those arguments in rendering its decision that there should not be a charge for removing load coils under 18 kilofeet?
- A. Which Commission is that?

- Q. The Florida Public Service Commission.
- A. Well, I would agree that you considered the context of the FCC order, but I would also say that you disagree with that information in the FCC order.
- Q. Okay. Am I correct that in this phase of the proceeding Sprint has proposed a rate for load coil removal on loops under 18 kilofeet?
- A. Yes, we have.
- Q. Has Sprint provided any information in this phase of the proceeding that you believe the Commission failed to consider in reaching its decision in its order?
- A. This relates back to one of our interrogatories that I would like to reference you to.
- Q. Okay.
- A. Give me a moment to locate that.
- Q. Did you find it?
- A. I'm almost there. Just a moment, please.
- Q. Well, we're familiar with the response. We just wanted to know if you had anything else to add to it?
- A. Only to reiterate what we said in our interrogatory. We do have load coils in this embedded base. We will have costs associated with removing load coils. We have provided a cost structure that takes into account the spirit of TELRIC in terms of efficiency, assuming 25 pair conditioning. We have spread the cost of the load coil removal over all users of those pair, including our own retail

DSLs. So we have apparently taken into consideration the cost and we would like to spread that cost over all users. (EXH 13, pp. 12-14)

# CONCLUSION (Load Coil Removal - Loops Under 18,000 Feet)

While staff is aware that Sprint and BellSouth are two distinct companies, staff believes that Sprint provided no new facts here that should cause this Commission to reconsider its prior decision to ". . . reject nonrecurring charges for load coil removal on short loops based upon a policy decision that a forwardlooking network would not have load coils on short loops." (emphasis added) (PSC-01-2051-FOF-TP, BellSouth UNE Reconsideration Order, issued October 18, 2001, p. 15) In addition, staff notes that Sprint was a participant in the BellSouth portion of the hearing and the Commission considered testimony filed by Sprint's witness regarding conditioning short loops. As such, staff believes that this Commission's decision that a rate of zero apply to load coil removal for loops under 18,000 feet is appropriate. Sprint was given the opportunity to provide additional information in both an interrogatory response and at deposition as to why a rate other than zero could be appropriate for load coil removal on loops under 18,000 feet. Staff was not persuaded by the information provided; therefore, we recommend that there be no charge to remove load coils on loops under 18,000 feet.

If, however, the Commission is inclined to revisit its policy regarding this matter, staff would recommend approval of Sprint's proposed rates for conditioning short loops. Staff believes that Sprint's approach for determining loop conditioning costs on loops less than 18,000 feet is reasonable. Primarily, staff finds that conditioning 25 pairs at a time to be efficient; additionally, staff believes that determining costs based on the various types of OSP is sagacious. As such, staff would recommend approving Sprint's loop conditioning rates for short loops as filed if the Commission deems a change in policy is appropriate.

Load Coil Removal - Loops 18,000 feet and longer

For load coil removal on loops over 18,000 feet Sprint's costs were determined on a per location basis, dependent upon the type of outside plant facilities. (EXH 2, NRC Cost Study, p. 14) This methodology enables Sprint to recover costs that vary with the different types of plant conditions (i.e., underground, buried, or aerial) encountered when performing loop conditioning activities. For instance, as previously noted by Sprint witness Davis, it is more time-consuming to enter a manhole to perform loop conditioning activities than it is to perform the same procedures on aerial or buried OSP. The charge for load coil removal on loops over 18,000 feet includes the cost of:

- Engineering charge.
- Trip charge.
- Contract rate to access cable pair.
- Contract rate to unload one pair.
- Contract rate to unload each additional pair. (EXH 2, NRC Cost Study, pp. 14-15)

As noted above, no party other than Sprint filed testimony on this element. However, in its post-hearing brief FDN addressed this issue.

At his deposition witness Davis was asked why loops over 18,000 feet were conditioned individually instead of 25 at a time. The witness explained:

Load coils are necessary to provide voice service when the loop is over 18,000 feet. So if we took a load coil off, that loop would not be able to support voice. And as we want to preserve the ability for our loops to provide voice, we don't want to have to -- in other words, if someone ordered DSL service and we went out and took two off and then we needed that pair for voice, we'd have to go out and put it back on. (EXH 13, pp. 96-97)

In addition, witness Davis was asked if there could be times when Sprint engineers may find it necessary to condition more than one loop over 18,000 feet. He explained that "There would have to be

something that would drive that necessity. I don't see what that could be." (EXH 13, p. 15) The Sprint witness reiterated that the reason load coils are removed from loops over 18,000 is if they inhibit data transmission; however, for voice, load coils are needed. (EXH 13, p. 15)

In its brief FDN argues that the Commission should reaffirm its policy in the BellSouth UNE Order for loops under 18,000 feet and extend it to loops longer than 18,000 feet. As such, FDN argues that the rate for load coil removal on long loops should be set at zero. (FDN BR at 45) In the alternative, FDN argues that if the Commission decides to allow Sprint to charge for loop conditioning it should require Sprint to condition multiple loops at one time. FDN states that they are not suggesting that any of the loops currently in use by POTS customers be part of the multiple loops conditioned. They believe the only pairs that are candidates to be conditioned in multiples are a portion of the spare pairs, or pairs not currently in use. (FDN BR at 48) Since FDN is suggesting that only spare pairs be considered for multiple loop conditioning, they contend that existing customers would not be impacted in any way.

While FDN's arguments may have some merit, it did not file any testimony to support or detail its proposal that only spare pairs be conditioned in multiple increments. Moreover, staff was not given the opportunity to do discovery or cross-examine a FDN witness to determine if its proposal is a valid option to present to this Commission. Accordingly, staff is not considering FDN's arguments in its analysis on this portion of Issue 11(a). As such, the only proposal to consider with regard to conditioning loops over 18,000 feet is that made by Sprint.

# CONCLUSION (Load Coil Removal - Loops Over 18,000 Feet)

Staff believes that Sprint's approach for determining load coil removal costs on loops longer than 18,000 feet is reasonable. Primarily, staff agrees that conditioning one pair at a time is rational since the record demonstrates that load coils are necessary to support voice service on loops over 18,000 feet. (Davis TR 203; EXH 13, p. 15) In addition, staff supports Sprint's

methodology that enables it to recover costs that vary with the type of plant conditions encountered (i.e., underground, buried, aerial) when conditioning loops. As such, staff believes Sprint's proposed method for calculating load coil removal costs for loops over 18,000 feet is appropriate and recommends that it be used in conjunction with staff's recommended changes in all other applicable prior issues. Staff's recommended rates are found in Appendix A.

## Bridged Tap and Repeater Removal - Loops of Any Length

For bridged tap and repeater removal the costs were determined on a per location basis, dependent upon the type of outside plant facilities to be worked on. This methodology enables Sprint to recover costs that vary with the different types of plant encountered when performing conditions loop conditioning activities. For instance, it is more time-consuming to enter a manhole to perform loop conditioning activities than it is to perform the same procedures on aerial or buried outside plant (OSP) facilities. This is largely due to the fact that manhole work must be performed by a minimum of 2 technicians for safety reasons. Additionally, such UG facilities must be ventilated to be purged of potentially dangerous gases and often need to be pumped out for water. This charge includes the costs of:

- Engineering charge.
- Trip charge.
- Contract rate to remove bridged tap and or repeater.
- Contract rate to remove each additional bridged tap or repeater at the same time, location and cable.

(EXH 2, NRC Cost Study, pp. 14-15)

Sprint witness Davis notes that it is not possible to consistently remove bridged taps in multiple quantities. He explains that bridged taps occur at random in Sprint's network, rather than in 25-pair complements like load coils. (TR 206) Many locations may only have one bridged tap in a particular splice. (Davis TR 206)

# CONCLUSION (Bridged Tap/Repeater Removal - All Loop Lengths)

No party other than Sprint filed any testimony addressing the removal of bridged tap or repeaters. As such, staff would recommend approval of Sprint's proposed rates for bridged tap and repeater removal. As with its other conditioning elements, Sprint's study reflects the varied costs when removing bridged taps or repeaters in aerial, buried, or outside plant. Staff supports this approach and believes it is reasonable.

**ISSUE 11(b)**: What is the appropriate rate, if any, for loop qualification information, and in what situations should the rate apply?

**RECOMMENDATION**: Staff recommends that the Commission require Sprint to implement an electronic loop qualification offering. Because the record lacks information on how significant an undertaking this may be, staff suggests that Sprint be required to report within 60 days of the order in this docket becoming final, when and how it will have an electronic loop qualification offering in place. Until an electronic interface is in place, those ALECs that require loop qualification information should not be subject to a manual loop make-up charge of \$37.55; rather, the ALECs should be charged an interim rate of \$5.90.

Once comparable access is provided, the interim rate of \$5.90 should be reevaluated and adjusted accordingly. Furthermore, once an electronic loop qualification process is in place, the ALEC community should be provided with the option of obtaining the information manually or electronically. At that time, the rate for the manual loop qualification process should be that proposed by Sprint in this proceeding. (King)

## POSITION OF THE PARTIES

**SPRINT**: The appropriate rate for loop qualification information is that rate which compensates Sprint-Florida for the work performed at the ALEC's request to provide loop makeup and electrical parameter data.

**FDN**: To the extent the Commission permits Sprint to impose any charge for loop qualification, it should reject the inflated charges proposed by Sprint and set any permissible charge for access to Sprint's loop qualification information as if the ALEC were getting full electronic access to databases that would include the information.

**<u>KMC</u>**: KMC concurs with the position and analysis of Florida Digital Network (FDN).

**STAFF ANALYSIS:** As with Issue 11(a), Sprint was the only party to provide testimony on this issue. FDN provided argument in its post-hearing brief. (FDN BR at 50-53)

The issue of loop make-up (LMU) or loop qualification was addressed by the FCC in its UNE Remand Order<sup>17</sup>. Paragraphs 426 – 429 of the FCC's UNE Remand Order specifically address ALEC access to the incumbents' loop make-up information. These paragraphs state, in pertinent part:

. . . the Commission should clarify that the pre-ordering function includes access to loop qualification information. Loop qualification information identifies the physical attributes of the loop plant (such as loop length, the presence of analog load coils and bridge taps, and the presence and type of Digital Loop Carrier) that enable carriers to determine whether the loop is capable of supporting xDSL and other advanced technologies. (¶ 426)

. . . an incumbent LEC must provide the requesting carrier with nondiscriminatory access to the same detailed information about the loop that is available to the incumbent, so that the requesting carrier can make an independent judgement about whether the loop is capable of supporting the advanced services equipment the requesting carrier intends to install. ( $\P$  427)

. . . an incumbent must provide access to the underlying loop information and may not filter or digest such information to provide only that information that is useful in the provision of a particular type of xDSL that the incumbent chooses to offer. . . Instead, the incumbent LEC must provide access to the underlying loop qualification information contained in the engineering records, plant records, and other back office systems so that requesting carriers can make their own judgements

<sup>&</sup>lt;sup>17</sup>FCC Third Report & Order, CC Docket No. 96-98, <u>In the Matter of</u> <u>Implementation of the Local Competition Provision of Telecommunications Act of</u> <u>1996</u>, Order No. FCC 99-238, (November 5, 1999), (UNE Remand Order).

about whether those loops are suitable for the services the requesting carrier seeks to offer. Otherwise, incumbent LECs would be able to discriminate against other xDSL technologies in favor of their own xDSL technology. ( $\P$  428)

We disagree, however, with Covad's unqualified request that the Commission require incumbent LECs to catalogue, inventory, and make available to competitors loop qualification information through automated OSS even when it has no such information available to itself. If an incumbent LEC has not compiled such information for itself, we do not require the incumbent to conduct a plant inventory and construct a database on behalf of requesting carriers. We find, however, that an incumbent LEC that has manual access to this sort of information for itself, or any affiliate, must also provide access to it to a requesting competitor on a non-discriminatory basis. In addition, we expect that incumbent LECs will be updating their electronic database for their own xDSL deployment and, to the extent their employees have access to the information in an electronic format, that same format should be made available to new entrants via an electronic interface. ( $\P$  429)

Sprint currently offers a manual LMU element<sup>18</sup>. As set forth in hearing Exhibit 1, Sprint's proposed rate for loop qualification information is a non-recurring charge of \$37.55. According to its cost study documentation, Sprint has developed procedures to provide ALECs with LMU and electrical parameter data. (EXH 2, NRC Cost Study Narrative, p. 12) The LMU information provided includes: (1) the composition of the loop material; (2) the existence, location and type of any electronics, bridge taps, load coils, disturbers etc.; (3) loop length; (4) the wire gauge(s) of the loop; and (5) the electrical parameters of the loop. (EXH 10, p. 250) The data is intended to enable the ALEC to determine the

<sup>&</sup>lt;sup>18</sup>Sprint Florida does not plan to develop an end-to-end electronic loop qualification query and reporting tool until demand for high-speed products is sufficient enough to justify the system enhancement costs. (EXH 10, p. 251)

type of service that can be sold on specific loops. (EXH 2, NRC Cost Study Narrative, p. 12)

Staff believes that after reviewing the pertinent portions of the FCC's UNE Remand Order, and the limited testimony presented, the Commission must address at least three issues related to Sprint's loop qualification offering. First, is Sprint providing the ALECs with comparable access to loop qualification information as it provides to itself? Second, does Sprint's LMU offering comport with the FCC's UNE Remand Order? Third, what rate if any should apply when an ALEC obtains LMU information?

# <u>Is Sprint Providing ALECs Comparable Access to Loop Make-up</u> <u>Information?</u>

As stated in the FCC's UNE Remand Order, the incumbent LEC is required to provide the ALEC with nondiscriminatory access to the same detailed information about the loop that is available to the incumbent so that the requesting carrier can make an independent judgement about whether the loop is capable of supporting the advanced services equipment the requesting carrier intends to install. (UNE Remand Order ¶¶ 426-429) In addition, the UNE Remand Order requires that an incumbent LEC that has manual access to this sort of information for itself, or any affiliate, must also provide such manual access to a requesting competitor on a nondiscriminatory basis. The FCC also found that "... . to the extent their employees have access to the information in an electronic format, that same format should be made available to new entrants via an electronic interface." (¶ 429) However, it is noted that if an incumbent LEC has not compiled such information for itself, the FCC does not require the incumbent to conduct a plant inventory and construct a database on behalf of requesting carriers. ( $\P$  429)

In order to determine if Sprint is providing ALECs comparable access to LMU information, one must first look at how Sprint's own personnel access LMU information. When questioned at deposition, Sprint witness Davis asserted that the method for obtaining loop make-up information for the ALEC was the same process Sprint used for its retail operations. (EXH 13, p. 106; Sprint BR at 71) When

asked in discovery to explain how Sprint employees access loop make-up information, the following response was provided:

Sprint-Florida's field team accesses loop make-up information using Byers Engineering Map Viewer 8.0.9.5 Plus Edition for Windows. Map Viewer functionality permits the user to locate and access maps as well as gather information for loop make-ups. Map Viewer runs on Sprint-Florida's core outside plant Engineering Work Order (EWO) platform. The following information is gathered and manually input into the remarks section of the Service Order:

## LOOP MAKE UP INFORMATION:

COPPER FACILITIES (Yes/No) ELECTRONIC FACILITIES (Yes/No) TYPE OF ELECTRONICS LOCATION OF ELECTRONICS (# of feet) LOOP LENGTH: 19GA COPPER (#) FEET 16.1 RESISTANCE PER KF 22GA COPPER (#) FEET 32.4 RESISTANCE PER KF 24GA COPPER (#) FEET 51.9 RESISTANCE PER KF 26GA COPPER (#) FEET 83.3 RESISTANCE PER KF TOTAL LOOP FOOTAGE IS (#) FEET BRIDGE TAPS:  $1^{st}$  AT (#) FEET - LENGTH (#) FEET - COSTS (\$) 2<sup>nd</sup> AT (#) FEET - LENGTH (#) FEET - COSTS (\$) 3<sup>rd</sup> AT (#) FEET - LENGTH (#) FEET - COSTS (\$)  $4^{th}$  AT (#) FEET - LENGTH (#) FEET - COSTS (\$) 5<sup>th</sup> AT (#) FEET - LENGTH (#) FEET - COSTS (\$) 6<sup>th</sup> AT (#) FEET - LENGTH (#) FEET - COSTS (\$) ENGINEERING CHARGE (\$) TRIP CHARGE(\$) DISTURBERS PRESENT\NONE INDICATED LOAD COILS PRESENT ON CABLE PAIR (Yes/No) COST TO REMOVE LOADS ON NON-STANDARD LOOP (\$) TOTAL RESISTANCE FOR LOOPS IS (#) OHMS COST FOR CONDITION IS (\$) COST FOR 2<sup>ND</sup> OR MORE UNE LOOP AT THE SAME ADDRESS IS ADDITIONAL (\$) EACH (EXH 10, pp. 248-249)

ELECTRICAL PARAMETERS

There are two test systems used to collect electrical parameters data for loop pre-qualification used in Florida, depending on the geographic region: Teradyne 4-Tel and Nortel Networks' CALRS (Centralized Automated Loop Reporting System). Each of these systems provides results in a different format. The specific detailed results are then manually entered into the service order in the Remarks section.

Once the loop make-up and electrical parameter information has been input to the service order, the field team closes the pre-qualification order. The Automated Routing & Completion (ARC) System will route (autofax) the completed pre-qualification service order to the requesting CLEC based on the FAX number supplied by the CLEC. (EXH 10, pp. 248-249)

At his deposition, witness Davis was asked if any part of Sprint's loop qualification process was electronic. (EXH 13, p. 104) The pertinent parts of the transcript are reproduced below:

Q Do you update your database after you determine the loop qualification information?

A When you say determine the loop qualification information -- I mean, we're given a, we're developing a report to provide. That's just looking at existing information and developing a report to provide.

Q Okay. But you mentioned -- well, in some cases there might be some manual activity that's required in getting that information?

A It has to be looked up in the cable records.

Q Okay. So after you look it up in the cable records, is that information then inputted into your electronic database?

Q Didn't you testify earlier that some part, a part of your loop qualification process is electronic?

. . .

A No.

Q You have no, you have no database of loop qualification information?

A The - - as, as we have laid out in one of our interrogatories, there is a mechanized informations [sic] and databases, but that has to be manually researched and the data has to be manually gathered. There are manual steps.

Q Okay. But, I mean after you look it up in the, after you ascertain the information in the cable records, do you include this information in a database?

A It's already - - it's in, it's in the database that we have already. I mean, we're pulling it out of a database. It's recorded on a document and handed off to someone. There's nothing to update.

Q Then why would you need to look up cable records?

A So that we can provide a report on loop makeup to the ALEC who has requested it.

Q So then that, that information there is in an electronic database where you have that information. For every loop qualification query, you have to look up. Look it up in a cable record?

A Yes. But the cable records - - I mean, the cable records are not paper now. They are more sophisticated than that. But the point is they have to be looked up, they have to be researched.

Q For every single query, manual research needs to be conducted?

A Yes. (EXH 13, pp. 104-105)

In its brief FDN argues that based on Sprint's description of its loop make-up process in response to a staff interrogatory, the records are electronically accessible by Sprint personnel. (BR at 50) FDN also argues that the only manual part of the process is having a Sprint employee review the records and determine if the loop is xDSL-capable. (FDN BR at 50) Moreover, FDN contends that

For this, the ALEC is charged \$37.55 while Sprint retail personnel could directly access this information and determine the xDSL capability of the loop. The charge for loop qualification should be based as if the ALEC had the same type of access that Sprint personnel has. There should be no manual charge for researching and interpreting the information. (BR at 50)

In this portion of staff's recommendation staff notes that it is only addressing access. That being said, staff does not believe that Sprint and the ALECs have comparable access to LMU information.

As addressed above, Sprint offers ALECs manual access to LMU information. However, it appears that Sprint's personnel retrieve loop make-up information from various databases. Specifically, it appears that the information that is gathered is obtained from Map Viewer, Teradyne 4-Tel and Nortel Networks' CALRS (Centralized Automated Loop Reporting System), each of which appears to be some type of database. (EXH 10, pp. 248-249)

In explaining the process of providing loop make-up information, Sprint states that "... information is gathered and manually input into the Remarks section of the Service Order ... (EXH 10, p. 248) Also, Sprint witness Davis acknowledged that "... it's in the database that we have already. I mean we're pulling it out of a database. It's recorded on a document and handed off to someone." (EXH 13, p. 105)

In its cost study, Sprint describes the steps taken to perform a LMU (see Table 11b-1) for an ALEC. Staff notes that many of these steps take only minutes; staff believes that if researching paper records were necessary (i.e., manual processing), additional time would be necessary to complete each task. The pertinent steps as described in the Sprint study are provided in Table 11b-1, along with the time estimate (minutes) identified to complete each task.

TABLE 11(b)-1 Loop Qualification Information Request Process (Field Team)	
Step Description	Time Estimate/ Minutes
Order is pulled from the printer.	1
Terminal and cable pair are researched. Mapviewer is accessed. Cable IPID is identified for the loop. Loop makeup is accessed in Mapviewer and loop makeup is run. Loop makeup information is added to the remark section of the service order.	23
Electrical Parameters are researched and added to the remark section of the service order.	5
Disturber data researched and added to the remark section of the service order	5
The service order is closed.	1

(EXH 2, NRC Study, p. 23)

Staff believes that the FCC's UNE Remand Order explicitly addresses situations in which ILEC employees have access to loop make-up information in an electronic format. Specifically, the FCC found that to the extent ILEC employees have access to the information in an electronic format, that same format should be made available to ALECs via an electronic interface. ( $\P$  429) (emphasis added) However, there was a caveat: the FCC noted that if an ILEC has not compiled the information for itself, it is not required to conduct a plant inventory and construct a database on behalf of requesting carriers. ( $\P$  429) This caveat does not appear to apply to Sprint. At his deposition, when questioned about loop make-up information, Sprint witness Davis stated: "That's just looking at existing information and developing a report to provide." (Emphasis added) (EXH 13, p. 104) In addition, he noted "It's already - - it's in, it's in the database that we

have already." Last, staff notes that the Sprint witness also stated that ". . . the cable records are not paper now. They are more sophisticated than that. But the point is they have to be looked up, they have to be researched." (EXH 13, pp. 104-105)

## CONCLUSION

Sprint Florida and the ALEC community do not have comparable access to LMU information. Staff believes that Sprint's loop qualification information currently resides in databases which Sprint's personnel can access electronically. As such, the ALECs are not provided with comparable access as required by ¶ 429 of the FCC's UNE Remand Order.

Accordingly, staff recommends that the Commission require Sprint to implement an electronic loop qualification offering. Because the record lacks information on how significant an undertaking this may be, staff suggests that Sprint be required to report within 60 days of the order in this docket becoming final, when and how it will have an electronic loop qualification offering in place. Until an electronic interface is in place, those ALECs that require loop qualification information should not be subject to a manual loop make-up charge of \$37.55; rather, the ALECs should be charged an interim rate of \$5.90. The development of this rate is addressed below.

# Does the LMU Information Provided by Sprint Comport with the FCC's UNE Remand Order?

With regard to the information that Sprint must provide to the ALECs, the FCC noted in its UNE Remand Order that it must be the same detailed information about the loop that is available to the ILEC, so that the requesting carrier can make an independent judgement about whether the loop is capable of supporting the advanced services equipment the requesting carrier intends to install. (¶ 427) The FCC also noted that the ILEC cannot filter such information to provide only information that is useful in the provision of a particular type of xDSL that the incumbent chooses to offer. (¶ 428)

Based on Sprint's response to staff discovery, it appears that Sprint is providing the ALECs with information about the loop that enables them to make an independent judgement about whether the loop is capable of supporting advanced services. (EXH 10, pp. 248-249) However, it appears as if Sprint may be providing information which is beyond the requirements of the FCC's UNE Remand Order. For example, as part of the information provided to the ALEC, Sprint also includes engineering charges, trip charges, and costs for conditioning. (EXH 10, pp. 248-249) While this information may be useful to some ALECs, it is not clear to staff whether ALECs need this information and, more importantly, if ALECs want to pay for this additional information when obtaining loop make-up information. The FCC's UNE Remand Order does not appear to address situations in which an ILEC is providing more information than may be necessary to determine if a loop is capable of supporting advanced services equipment. Therefore, staff believes that while the information may not be useful to all ALECs, it does not appear to be harmful. Furthermore, it is not clear what cost savings, if any, could be gained by deleting this information from Sprint's current manual loop make-up report.

#### CONCLUSION

Staff believes that Sprint is providing the same information to the ALECs that it provides to itself. In addition, Sprint is providing additional information which may or may not be useful to the ALEC requesting the loop make-up information. Since it does not appear that the additional information would harm or disadvantage an ALEC, staff recommends that it remain on the manual loop make-up report provided to the ALEC by Sprint personnel.

## What Rate, if Any, is Appropriate for LMU Information?

The issue of an appropriate rate is somewhat clouded because staff does not believe Sprint offers ALECs access to LMU information in compliance with the FCC's UNE Remand Order. As addressed above, staff believes an interim rate of \$5.90 is appropriate at this time. The interim rate should remain in effect until Sprint implements electronic access to its LMU information. Once electronic access is implemented, the Commission should evaluate the interim rate and make adjustments as needed. In

addition, at that time the manual loop make-up process should continue to be made available to ALECs at the rate proposed by Sprint in this proceeding.

#### Interim Rate Development

There is limited information on the record regarding the appropriate rate for loop qualification. As such, staff believes that the best data is that provided by Sprint in its non-recurring loop qualification study.

Sprint's proposed non-recurring rate for its manual Loop Qualification is \$37.55. The \$37.55 rate is comprised of \$13.29 for the National Exchange Access Center (NEAC)<sup>19</sup> costs and \$24.26 for Field Team costs. (EXH 2, NRC Cost Study, p. 23) In developing the interim rate for a mechanized loop make-up element, staff recommends the following adjustments be made to the Sprint study:

- Eliminate the \$13.29 charge for the NEAC.
- Eliminate all field work charges for processing a manual order (i.e., pull order from printer and close service order).
- Reduce remaining field work activities time by 75%.

Staff believes that the NEAC charge should be eliminated because the NEAC is essentially the group which handles ALEC orders. If an ALEC were to access LMU information electronically (comparable to Sprint personnel), there would not be an order submitted. In fact, an ALEC could obtain LMU information for several loops and never place an order. As such, the NEAC would not be necessary if electronic access to LMU information was made available to the ALEC community. Therefore, this component should be eliminated on an interim basis.

With regard to the field work time included in the study, staff believes that the time associated with the field team obtaining the order and closing the order should be eliminated. Again, an ALEC with electronic access to LMU information would not

<sup>&</sup>lt;sup>19</sup>The NEAC provides a central point of contact for the ALEC for ordering, provisioning coordination, bill inquiry, and dispute resolution for ALEC orders. (EXH 10, p. 252)

place an order and as such should not be charged for these steps. The remaining charges associated with field work tasks are for obtaining the loop make-up information. It appears based on the descriptions provided in Sprint's study that the field work consists of gathering information from the various databases and then taking that information and adding it to the remarks section of the order. Staff believes that taking existing information from Sprint's existing databases and entering it in the remarks section of the order is time-consuming. Moreover, an ALEC with electronic access to the loop information would avoid this activity. As such, staff believes that the work times for these activities should be reduced by 75%. Staff recommended adjustments are summarized in the table below.

TABLE 11(b)-2: Loop Qualification Information Request Process Staff's Recommended Adjustments								
	Cost Shown in Study	Staff's Recommendation						
NEAC Costs	\$13.29	\$0.00						
Itemized Field Team Costs								
Order is pulled from printer	\$ 0.69	\$0.00						
Terminal and cable pair are researched. Mapviewer is accessed. Cable IPID is identified for the loop. Loop makeup is accessed in Mapviewer and loop makeup is run. Loop makeup information is added to the remark section of the service order.	\$15.94	\$4.16						
Electrical Parameters are researched and added to the remark section of the service order.	\$ 3.47	\$0.87						
Disturber data researched and added to the remark section of the service order	\$ 3.47	\$0.87						
The service order is closed.	\$ 0.69	\$0.00						
Total	\$37.55	\$5.90						

#### CONCLUSION

Staff does not believe Sprint is providing the ALEC community with comparable access to loop qualification information. As such, staff recommends that the Commission require Sprint to implement an electronic loop qualification offering. Because the record lacks information on how significant an undertaking this may be, staff suggests that Sprint be required to report within 60 days of the order in this docket becoming final, when and how it will have an electronic loop qualification offering in place. Until an electronic interface is in place, those ALECs that require loop qualification information should not be subject to a manual loop make-up charge of \$37.55; rather, the ALECs should be charged an interim rate of \$5.90.

Once comparable access is provided, the interim rate of \$5.90 should be reevaluated and adjusted accordingly. Furthermore, once an electronic loop qualification process is in place, the ALEC community should be provided with the option of obtaining the information manually or electronically. At that time, the rate for the manual loop qualification process should be that proposed by Sprint in this proceeding.

lssue 12(a)&(b)

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**ISSUE 12(a) and (b)**: Without deciding the situations in which such combinations are required, what are the appropriate recurring and non-recurring rates for the following UNE combinations:

- (a) "UNE platform" consisting of: loop (all), local (including packet, where required) switching (with signaling), and dedicated and shared transport (through and including local termination);
- (b) "extended links," consisting of:
  - (1) loop, DSO/1 multiplexing, DS1 interoffice
     transport;
  - (2) DS1 loop, DS1 interoffice transport;
  - (3) DS1 loop, DS1/3 multiplexing, DS3 interoffice transport?

**RECOMMENDATION:** The appropriate recurring and nonrecurring rates for UNE combinations are those recommended by staff in Appendix A. (King)

# POSITION OF THE PARTIES

## SPRINT:

<u>Issue 12(a)</u>: The UNE platform consists of the loop, switch port, usage sensitive switching, and transport. With the exception of the loop, the rate for the UNE platform should be the sum of the statewide average rates for each individual element. In the case of loop and switch port, costs (such as a line card costs associated with loops provisioned through a DLC) that are included in each element when bought on a standalone basis can be eliminated when they are provided in combination.

<u>Issue 12(b)</u>: Because extended links (EELs) consist of the loop and transport unbundled elements, Sprint-Florida proposes that the rate for an EEL will be calculated as the sum if the banded loop rate and route-specific dedicated transport rate in combination. Furthermore, multiplexing rates necessary for EEL have been developed as shown in Composite Ex. 1, Revised Ex. MRH-1.

**FDN**: Recurring charges for UNE combinations should be the sum of the recurring charges for the UNE components. The nonrecurring charge for UNE combinations where the UNE combination already exists in Sprint's network should be zero or at most provide for a nominal service order charge.

 $\underline{\text{KMC}}$ : KMC concurs with the position and analysis of Florida Digital Network (FDN).

**STAFF ANALYSIS**: Sprint proffered some testimony regarding its obligation to combine UNEs on behalf of the ALEC. (Hunsucker TR 45) Much of that testimony is largely moot because the Supreme Court in <u>Verizon Communications Inc., et al. v. Federal Communications</u> <u>Commission, et al.</u>, 152 L. Ed. 2d 701, 122 S. Ct. 1646 (2002), has issued a ruling which addresses these obligations. Moreover, this issue is to address the appropriate rates for UNE combinations, <u>not</u> the situations in which such combinations are required. As such, staff will not address any testimony which goes beyond the stated issue.

## Sprint's Proposal

## <u>Unbundled Network Element Platform (UNE-P)</u>

A UNE-P consists of a 2-wire loop and switch port combination. (TR 181) With the exception of the loop, Sprint believes that the rate for the UNE platform should be the sum of the statewide average rates for each individual element. (Hunsucker TR 24-25) However, in the case of the loop and switch port, costs that are included in each element when bought on a standalone basis are eliminated when they are provided in combination<sup>20</sup>. As such, Sprint

<sup>&</sup>lt;sup>20</sup>Specifically, witness Hunsucker explains that in the case of unbundled loops provided using a DLC, two voice-grade line cards are included in the cost of the unbundled loop: one at the DLC-remote terminal and one at the DLCcentral office terminal. When loop and switching are provided in combination, only the voice-grade line card at the DLC-remote terminal is required. If the UNE combination were priced at the sum of the individual UNEs, CLECs would be paying for three line cards, although only one voice-grade line card would be used. Therefore, witness Hunsucker contends that the appropriate price for that UNE combination would be the sum of the loop and switching UNE rates, less the costs of two line cards. (TR 21-22)

develop a combined loop and port cost for each wire center. The combined costs were then banded based on the 2-wire banding results, resulting in three rate bands. (TR 45) In addition, Sprint witness Hunsucker notes that any deviations from the general principle that UNE combinations be priced at the sum of the individual UNEs which make up that combination, is to accurately reflect the actual forward-looking costs of that UNE combination. (Hunsucker TR 22)

The primary difference between the cost of UNE-P and those elements purchased on a standalone basis, is the result of the technology used to provide (Cox the elements. ΤR 181) Specifically, as explained by Sprint witness Cox, the technical difference between unbundled loops and ports purchased as part of UNE-P is that the GR-303 interface is used in place of an analog interface. With GR-303 the Integrated Digital Loop Carrier (IDLC) Central Office Terminal (COT) is integrated with the central office switch. (Cox 181) This technology permits connectivity between the switch and COT at the DS-1 level in lieu of individual switch line cards and COT line cards connected back to back with analog jumpers. (Cox TR 181) Witness Cox notes that the positive economies for loops sold in combination with switching are related to the differences in labor and material in the IDLC system and to the substitution of DS-1 level for line level switch and COT interfaces. (Cox TR 181)

In his testimony, witness Dickerson also noted that Sprint's UNE-P cost study reflects the network economies available through use of IDLC when loop and switch UNEs are sold on a combined basis. (Dickerson TR 96) He explains that the Sprint Loop Cost Model (SLCM) inputs are the same as for UNE 2-wire loop with the exception of the DLC inputs, and that a second run of SLCM was done solely for determining the cost of loops using IDLC<sup>21</sup>. (TR 97)

<sup>&</sup>lt;sup>21</sup> Witness Dickerson explained that similar adjustments were needed to reflect the cost of combined 2-wire ISDN loops and switch ports. Specifically, the integrated GR303 switch and DLC network configuration that yields cost savings for combined POTS loop and switch ports are available for ISDN-BRI. (TR 97)

Witness Dickerson also notes that the dedicated or common transport component of UNE-P is not reflected in Sprint's cost study output because it is not possible to predict where the ALEC will request its traffic to be routed (Sprint's dedicated transport cost study has approximately 500 point-to-point routes). (TR 97) However, both the dedicated transport and common transport UNE options are available as part of UNE-P, and the cost of the transport ordered by the ALEC would simply be added to the cost of UNE-P. (Dickerson TR 97)

With regard to non-recurring charges for UNE-P, witness Davis notes that for a new 2-wire analog UNE-P, the NRC is equal to the cost of the local loop installation. He explains that this is because Sprint assumes 100% flow-through automated systems whereby there is no installation charge for the port. (Davis TR 211) In its study, Sprint has identified the major cost determinants for its non-recurring installation charges for UNE-P. Staff has provided this information below.

## Installation Charges - UNE-P

# First Line, Loop and Port - 2 Wire

This charge is applied for the installation of a service where a field visit is required to connect the service at a cross connect, terminal, or network interface device (NID)/protector. This charge includes the costs of:

- 2-Wire Analog Loop installation non-recurring charge.
- 100% flow through automated systems is assumed. No installation NRC is applied when ordering a port.

# Second or Additional Loop and Port - 2 Wire

This charge is applied for the installation of an additional service where a field visit occurs as part of a "New" installation. This charge includes the costs of:

- 2-Wire Analog Loop Additional Line non-recurring charge.
- 100% flow though automated systems is assumed. No installation NRC is applied when ordering a port.

#### Reinstall Loop and Port 2 Wire

This change is applied if the installation can be completed without a field visit, such as a previous service that was left in place as a CT or DCOP.

It includes the costs of:

- 2-Wire Analog Loop Re-install cut through or DCOP non recurring charge.
- 100% flow through automated systems is assumed. No Installation NRC is applied when ordering a port.

### UNE-P Voice Grade Migration from Resale

This charge is applied when a CLEC migrates an existing resale customer to UNE-P. This charge is for records and billing work only, no field work is required. This charge includes the costs of:

- Disconnecting service in resale major account, systems and billing.
- Establishing service in UNE-P major account, systems and billing.

(EXH 2, NRC Cost Study Narrative, pp. 36-37)

Enhanced Extended Loop (EEL)

An EEL is a combination of the following UNEs:

- (a) UNE interoffice transport,
- (b) UNE multiplexing (where applicable), and
- (c) a UNE loop. (EXH 2, KWD-2, p. 33)

Sprint proposes that the recurring rate for an EEL be calculated as the sum of the banded loop rate and route-specific dedicated transport rate in the combination. Furthermore, multiplexing rates necessary for the EEL were developed. (Hunsucker TR 45)

Sprint witness Dickerson notes that there are hundreds of possible combinations of loop and transport routes. (TR 98) As such, Sprint has not attempted to list all of these possible combinations, but has shown the additional costs for multiplexing equipment that is needed for DS-0 to DS-1 and DS-1 to DS-3 EEL combinations in its EEL Monthly Recurring Charges table. (TR 98) The development of these multiplexing cost additives is provided in

Sprint's cost study filing along with illustrative drawings and descriptions. (Dickerson TR 98)

According to Sprint witness Davis, three non-recurring costing scenarios are addressed in the Sprint study:

<u>EEL 1</u> - includes the DSO loop, DSO/1 multiplexing and DS1 transport. For the first line, the NRC consists of the labor required for a field visit to connect the service at a cross-connect, terminal, and NID/Protector (equal to the loop installation charge) which is added to the labor associated with performing the DSO/1 multiplexing and DS1 transport provisioning functions. For the 2nd through 24th lines that are to share this initial DS1 transport facility, a reduced NRC per line occurs since an additional DS1 transport facility installation charge is not required. (Davis TR 212)

<u>EEL 2</u> - includes a DS1 loop, DS1/0 multiplexing and DS1 transport. The NRC is the simple addition of the NRCs for these individual UNEs. This includes the labor required for a field visit to connect the service at a cross-connect, terminal, and NID/Protector which is added to the labor associated with the DS1 transport provisioning function. (Davis TR 212)

<u>EEL 3</u> - includes a DS1 loop, DS1/3 multiplexing and DS3 transport. The NRC for the initial line includes the labor required for a field visit to connect the service at a cross-connect, terminal, and NID/Protector (equal to the DS1 loop installation charge) which is added to the labor associated with the DS1/3 multiplexing and DS3 transport provisioning functions. For the 2nd through 28th DS1s that are to share this initial DS3 transport facility, a reduced NRC per DS1 line occurs since an additional DS3 transport facility installation charge is not required. (Davis TR 212-213)

As with UNE-P installation charges, Sprint also identified the non-recurring installation charges for EELs.

# Installation Charges -EELs

<u>EEL DSO Loop, DSO Transport - 2-Wire/4-Wire - First Line</u> This charge is applied for the installation of a service where a field visit is required to connect the service at a cross-connect, terminal, or NID/protector. This charge includes the costs of:

- 2-Wire or 4-Wire first line non-recurring installation charge.
- DS0 transport non-recurring installation charge.

# EEL DSO Loop, DSO/1 Multiplexing, DS1 Transport-2-Wire/4-Wire - First Line

This charge is applied for the installation of a service where a field is required to connect the service at a cross-connect, terminal, or NID/protector. This charge includes the costs of:

- 2-Wire or 4-Wire first line non-recurring installation charge.
- DS0/1 multiplexing non-recurring installation charge.
- DS1 transport non-recurring installation charge.

# EEL DSO Loop, DSO/1 Multiplexing - 2-Wire/4-Wire Ordered Same Time for Same Location

This charge is applied for the installation of an additional service where a field visit occurs as part of a "New" installation. This charge includes the costs of:

- 2-Wire or 4-Wire 2<sup>nd</sup> line non-recurring installation charge.
- DS0/1 multiplexing non-recurring installation charge.
- Shared DS1 transport (no incremental cost).

# EEL DSO Loop, DSO/1 Multiplexing - 2-Wire/4-Wire First Lines

This charge is applied for the installation of an additional service where a field visit occurs as part of an installation not worked at the same time or location as the initial order. This charge includes the costs of:

- 2-Wire or 4-Wire first line non-recurring installation charge.
- DS0/1 multiplexing non-recurring installation charge.
- Shared DS1 transport (no incremental cost).

EEL DS1 Loop, DS1 Interoffice Transport

This charge is applied for the installation of a service where a field is required to connect the service at a cross-connect, terminal, or NID/protector. This charge includes the costs of:

- DS1 loop first line non-recurring installation charge.
- DS1 interoffice transport non-recurring installation charge.

EEL DS1 Loop, DS1/3 Multiplexing, DS3 Transport -First DS1, muxing and DS3 interoffice transport

This charge is applied for the installation of a service where a field visit is required to connect the service at a cross-connect, terminal, or NID/protector. This charge includes the costs of:

- DS1 first line non-recurring installation charge.
- DS1/3 multiplexing non-recurring installation charge.
- DS3 transport non-recurring installation charge.

EEL DS1 Loop, DS1/3 Multiplexing DS1s Ordered Same Time for Same Location

This charge is applied for the installation of an additional service where a field visit occurs as part of a "New" Installation. This charge includes the costs of:

- DS1 additional line non-recurring installation charge.
- DS1/3 multiplexing non-recurring installation charge.
- Shared DS3 transport (no incremental cost).

## EEL DS1 Loop, DS1/3 Multiplexing - DS1s

This charge is applied for the installation of an additional service where a field visit occurs as part of an installation not worked at the same time or location as the initial order. This charge includes the costs of:

- DS1 first line non-recurring installation charge.
- DS1/3 multiplexing non-recurring installation charge.
- Shared DS3 transport (no incremental costs).

## EEL DS3 Loop, DS3 Transport

This charge is applied for the installation os a DS3 loop that is to be transported to another central office. This charge includes the cost of:

- DS3 first line non-recurring installation charge (ICB).
- DS3 Transport non-recurring installation charge.
- DS3 DS3 cross-connect.

# EEL Loop and Transportation Migration

This charge is applied to migrate an existing CLEC special access circuit to a UNE EEL. This charge is to recover records and billing work, no field work is required. This charge includes:

- Disconnecting the special circuit in access records and billing.
- Establishing UNE EEL circuit in UNE records and billing and rebuilding the circuit in CIRAS with new circuit ID.
- (EXH 2, NRC Cost Study Narrative, pp. 37-39)

## FDN's Proposal

FDN did not file testimony addressing this issue. However, in its post-hearing brief, it did file a position statement and argument regarding rates for UNE combinations. With regard to the recurring charges (RCs) for UNE combinations, FDN contends that these charges should be the sum of the RCs for the UNE components which make up the combination. (FDN BR at 53)

FDN argues that the non-recurring charge (NRCs) for UNE combinations where the UNE combination already exists in Sprint's network should be zero or at most a nominal service order charge. FDN contends that this approach would be in accord with approaches taken by other states. (FDN BR at 53)

## CONCLUSION

#### Recurring Rates for Combinations

It appears that FDN and Sprint agree that the appropriate method for calculating RCs for UNE combinations is to sum the RCs for the UNE components which make up the combination. (FDN BR at 53; Hunsucker TR 24-25, 45) Staff also endorses this approach. In particular, staff believes that it is appropriate to take into consideration the benefits of technology (i.e., IDLC) in calculating the prices for loop/port combinations and any other adjustments which accurately reflect the forward-looking costs. Staff believes Sprint has done this in its study. Accordingly, staff believes Sprint's proposed method of calculating recurring rates for UNE combinations is appropriate and recommends that it be used in conjunction with staff's recommended changes in all other applicable prior issues.

## Nonrecurring Rates for Combinations

With regard to NRCs for UNE combinations, the parties appear to disagree. However, as noted above, the only testimony on this issue was proffered by Sprint. After reviewing the limited testimony and argument presented here, staff did not find any information that would lead it to conclude something other than what has been recommended for non-recurring costs in Issue 8(d).

Issue 13

**ISSUE 13**: When should the recurring and non-recurring rates and charges take effect?

**RECOMMENDATION:** Staff recommends that recurring and non-recurring rates and charges should take effect when existing interconnection agreements are amended to incorporate the approved rates, and the amended agreements are deemed approved by the Commission. For new interconnection agreements, the rates shall become effective when the agreements are deemed approved by the Commission. Pursuant to Section 252(e)(4) of the Telecommunications Act of 1996, a negotiated agreement is deemed approved by operation of law after 90 days from the date of submission to the Commission. (T. Brown)

#### POSITION OF THE PARTIES

**SPRINT**: Sprint-Florida recommends that it be required to file UNE rates that conform to any Commission order 60 days after release of that order. The rates would become effective on the date they are filed.

**FDN**: The Commission should adopt the procedure used in the BellSouth phase of this docket.

 $\underline{\mathsf{KMC}}$ : KMC concurs with the position and analysis of Florida Digital Network (FDN).

**<u>Z-TEL</u>**: Z-Tel adopts the position of AT&T and WorldCom.

#### STAFF ANALYSIS:

The issue before this Commission is to determine when the recurring and non-recurring rates and charges resulting from this docket should take effect.

### PARTIES' ARGUMENTS

Sprint witness Hunsucker asserts that the rates determined in this proceeding should take effect on the date the rates are filed. Witness Hunsucker recommends: . . [t]hat carriers be required to file UNE rates that conform to the Commission's Order 60 days after the release of the Order. Those rates would become effective on the date they are filed. (TR 46)

On the other hand, Sprint notes that using the BellSouth Order would require an amendment and Commission approval prior to the rates becoming effective for existing agreements. (Sprint BR at 75) In addition, Sprint emphasizes in its post-hearing brief that the Commission adopted BellSouth's effective date proposal based on the record in that proceeding. Sprint goes on to assert that the record in this proceeding is not the same as that developed in the BellSouth phase. (BR at 76)

Although there is an absence of competing testimony from other parties in the record, Florida Digital Network states in its posthearing brief that "the Commission should adhere to the approach that it utilized in the BellSouth phase." (FDN BR at 55)

### ANALYSIS

Staff notes that although Sprint has proposed a 60-day effective date interval and that rates be effective the day they are filed, Sprint has also previously stated that this Commission should not deviate from the finding in the BellSouth phase. (EXH 10, p.222) Specifically, in response to a discovery question regarding the outcome of this issue in Docket No. 990649A-TP, Sprint stated that "[t]he Commission should not deviate from that finding in this docket." (EXH 10, p.222) Sprint reaffirms this position, adding a caveat in its post-hearing brief, stating that:

<u>Sprint-Florida is willing to comply with the Commission</u> <u>precedent established for BellSouth</u> if the Commission were to allow either party to immediately submit the revised interconnection agreement to the Commission for approval with the rates to become retroactive to the 60<sup>th</sup> day after the Commission's Order is issued. (emphasis added) (Sprint BR at 75)

Staff acknowledges and agrees with Sprint's assertion that the record in this proceeding is not the same as the record developed

in the BellSouth phase. (Sprint BR at 76) Despite that fact, staff believes that there is no compelling reason to deviate from that finding here. Unlike other issues in this proceeding which are dependent on cost models and company-specific assumptions and inputs, staff believes that this issue is procedural in nature and should be applied uniformly among the companies associated with this docket. Although rates and charges may differ between phases and among companies in this docket, staff believes that there should be a single standard applicable to effective dates. The "standard" developed in Docket No. 990649A-TP is already applicable to BellSouth, and should also apply to Sprint and Verizon going forward.

In Docket No. 990649A-TP, Order No. PSC-01-1181-FOF-TP, this Commission stated:

. . . UNE rates as established herein, may be incorporated as amendments to existing interconnection agreements. Therefore, upon consideration, we find that it is appropriate for the rates to become effective when the interconnection agreements are amended to reflect the approved UNE rates and the amended agreement is approved by us. For new interconnection agreements, the rates shall become effective when we approve the agreement. Pursuant to Section 252(e)(4) of the Telecommunications Act of 1996, should we fail to act to approve or reject the agreement adopted by negotiation within 90 days after submission by the parties, the agreement is deemed approved. (p.547)

Staff sees no reason to create an additional standard for the application of effective dates in this docket. This Commission has already approved an effective process regarding the effective dates of charges and rates developed as a result of this UNE docket. The amendment and approval process the Commission approved in the BellSouth phase provides time for proper notice of changing rates and charges and allows the parties to make the necessary changes to billing systems.

#### CONCLUSION

Staff recommends that recurring and non-recurring rates and charges should take effect when existing interconnection agreements are amended to incorporate the approved rates, and the amended agreements are deemed approved by the Commission. For new interconnection agreements, the rates shall become effective when the agreements are deemed approved by the Commission. Pursuant to Section 252(e)(4) of the Telecommunications Act of 1996, a negotiated agreement is deemed approved by operation of law after 90 days from the date of submission to the Commission.

Issue 14

**ISSUE 14**: Should this Docket be closed?

**RECOMMENDATION:** Yes. If the Commission approves staff's recommendations in Issues 1 - 13, this docket should be closed after the time for filing an appeal has run. (Christensen, Knight)

**STAFF ANALYSIS**: If the Commission approves staff's recommendations in Issue 1 - 13, no further action will need to be taken. This Docket may be closed after the time for filing an appeal has run.

#### RATE TABLES

Attached to this recommendation are two Appendices. Appendix A shows the rates proposed by Sprint and staff for UNEs and UNE combinations. Appendix B shows staff's recommended assignment of wire centers to rate zones. Below is a brief description of the rate Appendix.

**APPENDIX A** - Appendix A contains the recurring and non-recurring rates proposed by Sprint Florida and those recommended by staff. No other party to this proceeding made specific proposals regarding recurring and non-recurring rates.

<u>Note</u>: Appendix A also contains the Dedicated Interoffice Transport rate table which is included as a supplement to Sprint's proposed and staff's recommended recurring rates.

## Source of Rates

- Sprint Proposed Recurring and Non-Recurring Exhibit 1; Revised MRH-1 and MRH-2, and MRH-3 and MRH-4.
- Staff Proposed Recurring and Non-Recurring Output of Sprint's cost models with staff adjustments.

Appendix A

APPENDIX A - RATE COMPARISON - SPRINT & STAFF									
ELEMENT DESCRIPTION	ZONE	SPRINT'S PF	ROPOSED RATES	STAFF'S RECOMMENDED RATES					
		RECURRING	NON-RECURRING	RECURRING	NON-RECURRING				
1 SERVICE ORDERS									
2 Manual Service Order			\$28.10		\$28.10				
3 Manual Service Order -Listing Only			\$14.81		\$14.81				
4 Manual Service Order - Change Only			\$13.76		\$13.76				
5									
6 Electronic Service Order			\$3.82		\$3.82				
7 Electronic Service Order - Listing Only			\$0.42		\$0.42				
8 Electronic Service Order - Change Only			\$1.66		\$1.66				
9									
10 LNP Administrative Charge			\$8.11		\$8.11				
11									
12 ANALOG LOOPS				<u></u>					
13 2-Wire Analog	1	\$18.58		\$16.81					
14	2	\$30.26		\$24.69					
15	3	\$66.91		\$33.62					
16	4			\$57.99					
17 2-Wire New (w/ NID)			\$119.74		\$119.74				
18 2-Wire New (w/o NID)			\$111.24	<u></u>	\$111.24				
19 2-Wire New, Add'l or Second Line (same time)		<u></u>	\$52.73		\$52.73				
20 2-Wire New Re-install (Cut thru and Dedicated/Vacant)			\$65.81		\$65.81				
21 2-Wire Disconnect		,	\$31.75		\$31.75				
22 4-Wire Analog	1	\$35.15		\$32.42					
23	2	\$58.41		\$47.60					
24	3	\$131.54		\$64.82					
25	4			\$111.82					
26 4-Wire New (w/ NID)			\$152.83		\$152.83				
27 4-Wire New (w/o NID)			\$144.33		\$144.33				

	APPENDIX A - RATE COMPARISON - SPRINT & STAFF									
	ELEMENT DESCRIPTION	ZONE	SPRINT'S PF	OPOSED RATES	STAFF'S REC	OMMENDED RATES				
			RECURRING	NON-RECURRING	RECURRING	NON-RECURRING				
28	4-Wire New, Add'l or Second Line (same time)			\$85.82		\$85.82				
29	4-Wire New Re-install (Cut thru and Dedicated/Vacant)			\$81.70		\$81.70				
30	4-Wire Disconnect			\$36.47		\$36.47				
31	PRE-ORDER LOOP QUALIFICATION									
32	Loop Make-Up Information			\$37.55	· · · · ·	\$5.90*				
33	LOOP CONDITIONING - PER LINE									
	This charge applies to all digital UNEs, line sharing and xDSL cable loops that are shorter than 18,000 feet in length. Separate Engineering and Travel charges DO NOT apply as these costs reflect 25 pair economies.			\$1.65		\$0.00				
35	LOOP CONDITIONING - PER LOCATION									
36	The following charge applies to all loops that are 18,000 feet in length or longer that require load coil removal.									
37	Engineering Charge - per loop			\$39.11		\$39.11				
38	Trip charge – per location			\$16.41		\$16.41				
39	Unload cable pair, per Underground location			\$445.21		\$445.21				
40	Unload add'l cable pair, UG same time, same location and cable			\$3.43		\$3.43				
41	Unload cable pair, per Aerial Location			\$7.80		\$7.80				
42	Unload add'l cable par, AE, same time, location, and cable			\$1.80		\$1.80				
43	Unload cable pair, per Buried Location			\$7.80		\$7.80				
44	Unload add'l cable pair, BU, same time, location and cable			\$1.80		\$1.80				
45										
46	The following charges apply to all loops of									

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<u> </u>	APPENDIX A - RATE ELEMENT DESCRIPTION	ZONE		ROPOSED RATES		OMMENDED RATES
			RECURRING			NON-RECURRING
	any length that require Bridged Tap or Repeater Removal.				<u>idobidding</u>	Non Teleonating
47	Engineering Charge - per loop			\$39.11		\$39.11
48	Trip Charge - per location			\$16.41		\$16.41
49	Bridge Tap Removal; Any length					
50	Remove Bridge Tap, per Underground Location			\$442.28		\$442.28
51	Remove one (1) add'l Bridged Tap, UG same time, location and cable			\$0.50		\$0.50
52	Remove Bridged Tap, per Aerial Location			\$6.43		\$6.43
53	Remove one (1) add'l Bridged Tap, AE same time location and cable			\$0.44		\$0.44
54	Remove Bridged Tap, per Buried Location			\$6.43		\$6.43
55	Remove one (1) add'l Bridged Tap, BU same time, location, and cable			\$0.44		\$0.44
56	Repeater Removal; Any Length					
57	Remove Repeater; per Underground Location			\$442.28		\$442.28
58	Remove add'l Repeater, UG, same time, location and cable			\$0.50		\$0.50
59	Remove Repeater, per Aerial Location			\$6.43		\$6.43
60	Remove Add'l Repeater, AE, same time, location and cable			\$0.44		\$0.44
61	Remove Repeater, per Buried Location			\$6.43	······································	\$6.43
62	Remove Add'l Repeater, BU, same time, location and cable			\$0.44		\$0.44
63				ļ		
64 65	XDSL CAPABLE LOOPS					
65	2-Wire xDSL-capable Loop	1	\$18.58		\$16.81	
66		2	\$30.26		\$24.69	

	APPENDIX A - RATE COMPARISON - SPRINT & STAFF									
	ELEMENT DESCRIPTION	ZONE	SPRINT'S PR	ROPOSED RATES	STAFF'S REC	OMMENDED RATES				
			RECURRING	NON-RECURRING	RECURRING	NON-RECURRING				
67		3	\$66.91		\$33.62					
68		4			\$57.99					
69	2-Wire xDSL-capable Loop - First Line			\$115.31		\$115.31				
70	2-Wire xDSL-capable Loop - Add'l or Second Line			\$48.30		\$48.30				
71	2-Wire xDSL-capable Loop - Re-install (Cut Thru and Dedicated/Vacant)			\$63.55	·····	\$63.55				
72	2 Wire Disconnect			\$31.75		\$31.75				
73										
74	4-Wire xDSL-capable Loop	1	\$35.15		\$32.31					
75		2	\$58.41		\$47.44					
76		3	\$131.54		\$64.61					
77		4			\$111.45					
78										
79	4-Wire xDSL-capable Loop - First Line			\$146.73		\$146.73				
80	4-Wire xDSL-capable Loop - Add'l or Second Line			\$79.72		\$79.72				
81	4-Wire xDSL-capable Loop - Re-install (Cut Thru and Dedicated/Vacant)			\$78.59		\$78.59				
82	4 Wire Disconnect			\$36.47		\$36.47				
83										
84	DIGITAL LOOPS									
85	2-Wire Digital Loop	1	\$18.58		\$16.81					
86		2	\$30.26		\$24.69					
87		3	\$66.91		\$33.62					
88		4			\$57.99					
89	2-Wire New, First Line (w/NID)			\$177.64		\$177.64				
90	2-Wire New, First Line (w/o NID)			\$169.14		\$169.14				

DATE: October 2, 2002

<i></i>		RINT & STAFF	AS - NOSIN	COMPA	APENDIA - A XIGNEGA			
SETAR DEUNEMMO					ELEMENT DESCRIPTION	ELEMENT DE		
NON-RECURRING	RECURRING	NON-RECURRING	RECURRING					
01.801\$		01.801\$		+	2-Wire New, Add'l or Second Line	Ţ		
5 <i>1</i> .15\$		SL'ΤΕ\$			Z-Wire Disconnect	3 7		
	¢30 E3		10 000			4 3		
	<u>\$₹3.36</u> \$29.53	<u> </u>	<u>81 29\$</u>	τ	Digital 56k/64k Loop	<u></u>		
	<u>90.65\$</u>		\$25°J8	3 5				
	98.101\$		CT • F C &	1	· · · · · · · · · · · · · · · · · · ·			
₱ <u>9.</u> 712	00:1016	₱9 <i>°LL</i> Ҭ\$			Digital 56k / 64k New, First Line (w/ NID)			
₱ <u></u> <u> </u> <b> </b>		₽T'69T\$			Digital 56k / 64k New, First Line (w/o NID)			
01.801\$		01.801\$		<u> </u>	Digital 56k / 64k New, Add'l or Second Line	0		
52°TE\$		52°78\$			2-Wire Disconnect	T		
CL:TCA		CL+TC-		+				
	09 005			L		3 7		
	89.62\$		 T8'SE\$	τ	2-Wire ISDN/BRI Loop	5		
	65.642		\$25.52	5		۲ ۲		
	<u> </u>		78.801\$	5		9		
₽9.771\$	66.201\$	₱9°८८⊺\$		₽	(GIN \W) edil taria WeW 199\MQ21 eriW-C			
₱ <u>1</u> .69 <u>1</u> \$		₱ <b>Т</b> .691\$			2-Wire ISDN/BRI New, First Line (w/ NID) 2-Wire ISDN/BRI New, First Line (w/ NID)	8		
01.801\$		0I.80I\$			2-Wire ISDN/BRI New, Add'I or Second Line	6		
<u>92°IE\$</u>		<u>SL'IE\$</u>			2-Wire Disconnect	0		
		CLITC A				1		
	24.25\$		\$32°J2	τ	4-Μίτε Digital Loop	5		
	09.74\$		<u>TÞ.83\$</u>	5		3		
	28.438		₽ <u></u> 5°181\$	3		4		
	28.1112			4		2		
65.042\$		65.042\$			4-Wire New, First Line (w/NID)	9		
06°0⊅Z\$		06°0⊅Z\$			4-Wire New, First Line (w/o NID)	L		
58°6/I\$		58°6/T\$		ļ	4-Wire New, Add'l or Second Line			

ELEMENT DESCRIPTION	ZONE	ZONE SPRINT'S PROPOSED RATES S			OMMENDED RATES
		RECURRING	NON-RECURRING	RECURRING	NON-RECURRING
119 4 Wire Disconnect			\$36.47		\$36.47
120					
121 DS1 Service	1	\$211.37		\$135.05	
122	2	\$219.26		\$198.29	
123	3	\$418.09		\$270.05	
124	4			\$465.82	
125 DS1 Service New, First Line			\$334.38		\$334.38
126 DS1 Service New, First Line (w/o NID)			\$325.88		\$325.88
127 DS1 Service New, Add'l or Second Line			\$177.61		\$177.61
128 DS1 Disconnect			\$36.47		\$36.47
129					
130 DARK FIBER LOOPS					
131 Interoffice, per Foot Per Fiber		\$0.00		\$0.00	
132 Feeder, per Fiber – Statewide Average		\$287.27		\$235.53	
133 Distribution Price Per Fiber		\$58.29		\$47.79	
134 Fiber Patch Cord, per Fiber		\$0.82		\$0.82	
135 Initial Patch Cord Installation, Field			\$22.92		\$22.92
Location					
136 Additional Patch Cord Installation, Field			\$7.64		\$7.64
Location, Same Time, Same Location					
137 Central Office Interconnection, 1-4 Patch			\$193.55		\$193.55
Cords, per C.O.					
138 Dark Fiber Quote Preparation Charge			\$270.47		\$270.47
139 Fiber Patch Panel, per fiber		\$0.79		\$0.79	
140 Special Construction for Fiber Pigtail			ICB		ICB
141					
142 SUB-LOOPS					
143 Sub-Loops Interconnection (Stub Cable)			ICB		ICB

APPENDIX A - RATE COMPARISON - SPRINT & STAFF										
ELEMENT DESCRIPTION	ZONE	SPRINT'S PROPOSED RATES		STAFF'S RECOMMENDED RATES						
		RECURRING	NON-RECURRING	RECURRING	NON-RECURRING					
144 2-Wire Feeder	1	\$12.10		\$10.53						
145	2	\$17.90		\$15.46						
146	3	\$45.07		\$21.06						
147	4			\$36.32						
148 2-Wire Feeder First Line			\$88.72		\$88.72					
149 2-Wire Feeder Add'l or Second Line			\$42.43		\$42.43					
150 2-Wire Feeder Disconnect Charge			\$31.75		\$31.75					
151										
152 2-Wire Distribution	1 .	\$6.48		\$6.44						
153	2	\$12.48		\$9.46						
154	3	\$23.86		\$12.88						
155	4			\$22.22						
156 2-Wire Distribution First Line			\$127.65		\$127.65					
157 2-Wire Distribution Add'l or Second Line			\$40.65		\$40.65					
158 2-Wire Distribution Disconnect Charge			\$51.98		\$51.98					
159										
160 4-Wire Feeder	1	\$23.19		\$20.17						
161	2	\$34.32		\$29.61						
162	3	\$86.42		\$40.33						
163	4			\$69.57						
164 4-Wire Feeder First Line			\$122.84		\$122.84					
165 4-Wire Feeder Add'l or Second Line			\$66.12		\$66.12					
166 4-Wire Feeder Disconnect Charge			\$36.47		\$36.47					
167										
168 4-Wire Distribution	1	\$12.43		\$12.35						
169	2	\$23.94		\$18.13						
170	3	\$45.75		\$24.69						
171	4			\$42.58						

ELEMENT DESCRIPTION 2	ZONE	SPRINT'S PR	ROPOSED RATES	STAFF'S REC	OMMENDED RATES
		RECURRING	NON-RECURRING	RECURRING	NON-RECURRING
172 4-Wire Distribution First Line			\$173.06		\$173.06
173 4-Wire Distribution Add'l or Second Line		······	\$65.20		\$65.20
174 4-Wire Distribution Disconnect Charge			\$63.31		\$63.31
175					
176 HIGH-CAPACITY LOOPS					
177 DS-3		· · · · · · ·			
178 Per DS-3, both ends		\$1,485.46	\$109.19	\$1,286.78	\$109.19
179 <b>OC-3</b>					
180 Single termination, per OC-3 terminal		\$749.53	\$109.19	\$673.94	\$109.19
181 DS-3 Bandwidth, single termination per DS-3 card		\$106.50		\$95.76	
182 OC-12					
183 Single termination per OC-12 terminal		\$832.27	\$109.19	\$748.34	\$109.19
<pre>184 DS-3 Bandwidth, single termination per quad DS-3 card</pre>		\$92.18		\$82.89	
185 OC-3 Bandwidth, single termination per OC-3 card		\$168.07		\$151.12	
186 <b>OC-48</b>					
187 Single termination per OC-48 terminal		\$1,193.98	\$109.19	\$1,073.58	\$109.19
188 DS-3 Bandwidth, single termination per quad DS-3 card		\$82.19		\$73.90	
189 OC-3 Bandwidth, single termination per OC-3 card		\$69.32		\$62.33	
190 OC-12 Bandwidth, single termination per OC-12 card		\$131.83		\$118.53	
191					
192 LOCAL SWITCHING					
193 PBX Trunks					

	APPENDIX A - RATE COMPARISON - SPRINT & STAFF           ELEMENT DESCRIPTION         ZONE         SPRINT'S PROPOSED RATES         STAFF'S RECOMMENDED RATES									
ELEMENT DESCRIPTION	ZONE	RECURRING	NON-RECURRING		NON-RECURRING					
194 PBX Trunk Connection Analog		\$5.82	\$167.80	\$5.28	\$167.80					
195 PBX Trunk Connection (DSO)		\$5.82	\$264.36	\$5.28	\$264.36					
196 PBX Trunk Connections (DS1)		\$139.75	\$349.35	\$126.91	\$349.35					
197										
198 UNE Stand Alone Ports										
199 Residential 1		\$2.28		\$2.07						
200 Business 1		\$2.28		\$2.07						
201 Key System	-	\$2.28		\$2.07						
202 CENTREX		\$2.28		\$2.07						
203 Pay Station		\$2.44		\$2.21						
204 DS-1		\$139.64		\$126.81						
205 BRI-ISDN		\$13.42		\$12.18	* * *					
206 PRI-ISDN		\$201.55		\$183.02						
207										
208 Local Switching Usage, per MOU - Statewide		\$0.00		\$0.00						
Average										
209										
210 CUSTOMIZED ROUTING										
211 Switch Analysis			\$119.74		\$119.74					
212 Host Switch Translations			\$2,394.81		\$2,394.81					
213 Remote Switch Translations			\$1,796.10		\$1,796.10					
214										
215 FEATURES										
216 Feature Packages										
217 CCF Package		\$0.36		\$0.33						
218 CLASS Package		\$5.49		\$5.07						
219 CENTREX Package		\$10.98	\$29.65	\$10.15	\$29.65					
220 ISDN Package		\$6.92	\$6.70	\$6.41	\$6.70					

APPENDIX A - RATE COMPARISON - SPRINT & STAFF									
ELEMENT DESCRIPTION	ZONE	SPRINT'S PH	ROPOSED RATES	STAFF'S REC	OMMENDED RATES				
		RECURRING	NON-RECURRING	RECURRING	NON-RECURRING				
221									
222 Individual Features									
223 3 Way Conf/ Consult/Hold Transfer		\$1.80	\$18.77	\$1.63	\$18.77				
224 Conf Calling - 6 Way Station Control		\$2.56	\$18.77	\$2.32	\$18.77				
225 Dial Transfer to Tandem Tie Line		\$0.13	\$100.48	\$0.12	\$100.48				
226 Direct Connect		\$0.02	\$18.77	\$0.02	\$18.77				
227 Meet Me Conference		\$17.20	\$28.63	\$15.61	\$28.63				
228 Multi-hunt Service		\$0.11	\$18.77	\$0.10	\$18.77				
229					· · · · · · · · · · · · · · · · · · ·				
230 TANDEM SWITCHING									
231 Tandem Switching per MOU - Statewide Average		\$0.00		\$0.00					
232				· · · · · · · · · · · · · · · · · · ·	· · · · ·				
233 TRANSPORT									
234 Transport - DSO Dedicated - Install		Dedicated	\$192.85	Dedicated	\$192.85				
		Transport		Transport					
		Price List		Price List					
235 Transport - DS1 Dedicated - Install		Dedicated	\$182.15	Dedicated	\$182.15				
	[	Transport		Transport					
		Price List		Price List					
236 Transport - DS3 Dedicated - Install		Dedicated	\$192.85	Dedicated	\$192.85				
		Transport		Transport					
		Price List		Price List					
237 Transport - OC3 Dedicated		Dedicated	\$192.85	Dedicated	\$192.85				
		Transport		Transport					
		Price List		Price List					
238 Transport - OC12 Dedicated		Dedicated	\$192.85	Dedicated	\$192.85				
		Transport		Transport					
020		Price List		Price List					
239									

APPENDIX A - RATE COMPARISON - SPRINT & STAFF ELEMENT DESCRIPTION ZONE SPRINT'S PROPOSED RATES STAFF'S RECOMMENDED RATES								
ELEMENT DESCRIPTION	ZONE				OMMENDED RATES			
		RECURRING	NON-RECURRING	RECURRING	NON-RECURRING			
240 DS1 to DS1 Cross Connect			\$182.15		\$182.15			
241 DS3 to DS3 Cross Connect			\$192.85		\$192.85			
242 OC3 to OC3 Cross Connect			\$192.85		\$192.85			
243 OC12 to OC12 Cross Connect			\$192.85		\$192.85			
244								
<pre>245 Dark Fiber Transport -Initial Installation, 1-4 Patch Cords, per CO</pre>			\$193.55		\$193.55			
246								
247 Common Transport, per minute of use		\$0.00		\$0.00				
248								
249 911 AND E911 DATABASE ACCESS								
250 911 Trunk 2 Wire Analog			\$151.80		\$151.80			
251 DS-0 transport to Sprint's 911 tandem office		Dedicated Transport Price List	\$192.85	Dedicated Transport Price List	\$192.85			
252								
253 MULTIPLEXING								
254 Multiplexing - DS1-DSO (Mux 1/0 Common Equipment)		\$179.10	\$93.62	\$162.48	\$93.62			
255 Multiplexing - DS3-DS1 (M13 Multiplexer - per DS3)		\$215.79	\$119.88	\$195.77	\$119.88			
256 D4 Channel Unit		\$4.71		\$4.27				
257 D4 OCU DP		\$3.28	<u> </u>	\$2.98				
258 D4 ISDN U-Brite		\$3.61		\$3.28				
259	_	· · · · · · · · · · · · · · · · · · ·	†	· · · · · · · · · · · · · · · · · · ·				
260 UNE COMBINATIONS			1					
261 UNE Platform								
262 UNE-P 2-Wire Analog Loop, Switching, Common	1	\$16.96	1	\$15.45				

ELEMENT DESCRIPTION	ZONE	SPRINT'S PROPOSED RATES		STAFF'S RECOMMENDED RATES	
		RECURRING	NON-RECURRING	RECURRING	NON-RECURRING
Transport					
263	2	\$28.55		\$22.69	
264	3	\$66.21		\$30.90	
265	4			\$53.30	
266					
267 UNE-P 2-Wire Analog Loop w/NID - First Line, Switching, Common Transport			\$119.74		\$119.74
268 UNE-P 2-Wire Analog Loop w/NID - First Line, Switching, Common Transport			\$111.24		\$111.24
269 UNE-P 2-Wire Analog Loop - Add'l Line ordered same time to same location			\$52.73		\$52.73
270 UNE-P 2-Wire Analog Loop - Reinstall Loop, Switching, Common Transport			\$16.14		\$16.14
271 UNE-P 2-Wire Analog Loop - Voice Grade Migration from Resale			\$20.80		\$20.80
272 UNE-P 2-Wire Analog Loop - Disconnect Charge			\$5.38	·····	\$5.38
274 UNE-P ISDN/BRI Loop & Port Combination	1	\$39.48		\$32.94	
275	2	\$55.87		\$48.37	
276	3	\$116.21		\$65.88	
277	4			\$113.63	
278 UNE-P ISDN/BRI Loop New, First Line (w/NID) & Port Combination			\$177.64		\$177.64
279 UNE-P ISDN/BRI Loop New, First Line (w/NID) & Port Combination			\$169.14		\$169.14
80 UNE-P ISDN/BRI Loop New, Add'l or Second Line & Port Combination			\$108.10		\$108.10
281 UNE-P ISDN-BRI Disconnect			\$31.75		\$31.75

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<u> </u>	APPENDIX A - RATE					
	ELEMENT DESCRIPTION	ZONE		OPOSED RATES		MMENDED RATES
			RECURRING	NON-RECURRING	RECURRING	NON-RECURRING
282						
283	Usage, per MOU		See UNE		See UNE	
			Switching MOU		Switching	
			Prices		MOU Prices	
	ENHANCED EXTENDED LINK; DS0 LOOP, 1/0 MUX, DS1 TRANSPORT					
285	DSO Loop		See Loop UNE		See Loop UNE	
			Prices		Prices	
286	DS1 Transport		See Transport		See	
			UNE Prices		Transport	
					UNE Prices	
287	Channel Bank Shelf/Common (per DS1)		\$179.10	-	\$162.48	
288	Channel Bank Card (per DS0)		\$4.71		\$4.27	
289						
290	ENHANCED EXTENDED LINK; DS0 LOOP, DS0 TRANSPORT					
291	EEL New 2-Wire Analog Loop, DS0 Transport	······		\$312.59		\$312.59
292	EEL New 4-Wire Analog Loop, DS0 Transport			\$345.68		\$345.68
293	EEL New 2-Wire Digital Loop, DS0 Transport			\$370.49		\$370.49
294	EEL New 4-Wire Digital Loop, DSO Transport			\$442.24		\$442.24
295						
296	ENHANCED EXTENDED LINK; DS0 LOOP, D4 CHANNELS, DS1 TRANSPORT					
297	EEL New 2-Wire Analog Loop, D4 Channel,			\$395.51		\$395.51
298	Dedicated DS1 Transport			012.20		4010.00
	EEL New 2-Wire Analog Loop, D4 Channel			\$213.36		\$213.36
299	EEL Add'l 2-Wire Analog Loop same time same location, D4 Channel			\$146.35		\$146.35
300	EEL New 2-Wire Analog - Disconnect Charge			\$31,75		\$31.75

ELEMENT DESCRIPTION	ZONE	SPRINT'S P	ROPOSED RATES	STAFF'S RECOMMENDED RATES		
		RECURRING	NON-RECURRING	RECURRING	NON-RECURRING	
301						
302 EEL New 4-Wire Analog Loop, D4 Channel, Dedicated DS1 Transport			\$428.60		\$428.60	
303 EEL New 4-Wire Analog Loop, D4 Channel			\$246.45		\$246.45	
304 EEL Add'l 4-Wire Analog Loop same time same location, D4 Channel			\$179.44		\$179.44	
305 EEL New 4-Wire Analog - Disconnect Charge			\$36.47		\$36.47	
306						
307 EEL New 2-Wire DSO Digital Loop, D4 Channel, Dedicated DS1 Transport			\$453.41		\$453.41	
308 EEL New 2-Wire DSO Digital Loop, D4 Channel			\$271.26		\$271.26	
309 EEL Add'l 2-Wire DSO Digital Loop same time same location, D4 Channel			\$201.72		\$201.72	
310 EEL New 2-Wire DSO Digital Disconnect Charge			\$31.75		\$31.75	
311						
312 EEL New 4-Wire DSO Digital Loop, D4 Channel, Dedicated DS1 Transport			\$525.17		\$525.17	
313 EEL New 2-Wire DSO Digital Loop, D4 Channel			\$343.01		\$343.01	
314 EEL Add'l 4-Wire DSO Digital Loop same time same location, D4 Channel			\$273.47		\$273.47	
315 EEL New 4-Wire DSO Digital Disconnect Charge			\$36.47		\$36.47	
316						
317 ENHANCED EXTENDED LINK, DS1 LOOP, DS1 TRANSPORT						
318 DS1 Loop						
319 DS1 Transport						
320 EEL New DS1 Loop, DS1 Interoffice Transport			\$516.53		\$516.53	
321 EEL DS1 Loop Disconnect Charge			\$36.47		\$36.47	

	APPENDIX A - RATE	COMPA	RISON - SP	RINT & STAFF	·	
	ELEMENT DESCRIPTION	ZONE	SPRINT'S PR	OPOSED RATES	STAFF'S REC	OMMENDED RATES
			RECURRING	NON-RECURRING	RECURRING	NON-RECURRING
322						
323	ENHANCED EXTENDED LINK, DS1 LOOP, 3/1 MUX, DS3 TRANSPORT					
324	DS1 Loop					
325	DS1 Transport					
326	3/1 Multiplexing (per DS3)					
327	EEL New DS1 Loop, 3/1 Multiplexing, DS3 Interoffice Transport			\$647.11		\$647.11
328	EEL New DS1 Loop, 3/1 Multiplexing			\$454.26		\$454.26
	EEL Add'l DS1 Loop same time same location, 3/1 Multiplexing			\$297.49		\$297.49
330	EEL DS1 Loop Disconnect Charge			\$36.47		\$36.47
331						
332	Enhanced Extended Link, DS3 Loop, DS3 Transport					
333	EEL New DS3 Loop, DS3 Interoffice Transport			\$494.89		\$494.89
334						
335	Enhanced Extended Link Loop Transport Migrations			\$76.71		\$76.71
336						
337	COMMON CHANNEL SIGNALING					
338	Interoffice Transmission - STP Ports		\$279.17	\$281.69	\$252.47	\$281.69
339	STP Switching		\$0.36		\$0.33	
340	STP Transport Link 56.0 Kbps SS7 Link per		Dedicated	\$184.79	Dedicated	\$184.79
	month - Interoffice transmission		Transport & Multiplexing		Transport & Multiplexing	ſ
341	STP Transport Link 1.544 Mbps SS7 Link per month		Dedicated Transport & Multiplexing	\$184.79	Dedicated Transport & Multiplexing	\$184.79

APPENDIX A - RATE COMPARISON - SPRINT & STAFF											
ELEMENT DESCRIPTION	ZONE	SPRINT'S PI	ROPOSED RATES	STAFF'S REC	OMMENDED RATES						
		RECURRING	NON-RECURRING	RECURRING	NON-RECURRING						
342 D4 Channel Units		\$4.71		\$4.27							
343 SS7 - Originating Point Code Service			\$29.94		\$29.94						
344 SS7 - Global Title Address Translation			\$14.97		\$14.97						
345											
346 RECIPROCAL COMPENSATION											
347 Local End Office Call Attempt (Setup)		\$0.00		\$0.00							
348 Local End Office MOU		\$0.00		\$0.00							
349 Tandem Call Attempt (Setup)		\$0.00		\$0.00							
350 Tandem MOU		\$0.00		\$0.00							
351 Tandem Transport MOU		\$0.00		\$0.00							
352											
353 CALL-RELATED DATABASES SERVICES				··							
354 LIDB Database per query		\$0.01		\$0.01							
355 Toll Free Code Access Service query		\$0.00		\$0.00							
356 Calling Name Delivery per query		\$0.00		\$0.00							
357 Local Number Portability per query		\$0.00		\$0.00							
358											
359 OTHER CHARGES											
360 NID Instillation			\$8.50		\$8.50						
361 NID Connection - 2 Line		\$0.96	\$8.50	\$0.82	\$8.50						
362 NID Connection - 4 Wire			\$16,99		\$16.99						
363 25 Line		\$12.40	Installed via	\$10.63	Installed via						
			Workorder		Workorder						
364 SmartJack		\$8.86	\$56.65	\$7.60	\$56.65						
365 Trip Charge			\$18.88		\$18.88						
366 2-Wire Digital Data Loop Cooperative Testing			\$46.71		\$46.71						
367 4-Wire Digital Data Loop Cooperative Testing			\$66.99		\$66.99						
368 Trouble Isolation and Testing			\$48.47		\$48.47						

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	APPENDIX A - RATE	COMP	ARISON - SP	RINT & STAFF	J	
	ELEMENT DESCRIPTION	ZONE	SPRINT'S PH	ROPOSED RATES	STAFF'S REC	OMMENDED RATES
			RECURRING	NON-RECURRING	RECURRING	NON-RECURRING
369	Dark Fiber End-to-End Testing, Initial Strand			\$53.48		\$53.48
370	Dark Fiber End-to-End Testing, Initial Strand			\$15.28		\$15.28
	Tag & Label loop not ordered w/ loop installation			\$9.44		\$9.44
372	Tag & Label loop at same location and time			\$3.78		\$3.78
373	Tag & Label loop ordered w/ loop installation			\$4.72		\$4.72
374	UNE-P Telephone Number Change Charge			\$14.66		\$14.66
375	Non 10 Digit Trigger Charge for LNP - first 10 number ported			\$47.33		\$47.33
	Non 10 Digit Trigger Charge for LNP - each add'l number ported			\$4.24		\$4.24

\* Staff's recommended loop qualification charge of \$5.90 is interim. See Issue 11(b).

		APPENDIX A - DI	EDICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STA	FF	
	ORIGINATING	TERMINATING	I	S0	D	S1	I	os3	0	C3	00	12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
1	ALFRFLXARS0 -	CTDLFLXARS0 -	\$40.43	\$36.50	\$140.67	\$124.64	\$2,005.87	\$1,736.74	\$5,415.68	\$4,686.03	NA	NA
	Alford	Cottondale										
2	ALFRFLXARSO -	GDRGFLXADS0 -	\$44.72	\$40.30	\$209.60	\$185.79	\$2,969.76	\$2,572.55	\$8,016.71	\$6,939.96	NA	NA
	Alford	Grand Ridge										
3	ALFRFLXARSO -	GNWDFLXARSO -	\$44.41	\$40.04	\$204.63	\$181.65	\$2,830.67	\$2,456.54	\$7,636.19	\$6,622.59	NA	NA
	Alford	Greenwood						1		,		
4	ALFRFLXARSO -	MALNFLXARSO -	\$44.41	\$40.04	\$204.63	\$181.65	\$2,830.67	\$2,456.54	\$7,636.19	\$6,622.59	NA	NA
	Alford	Malone										
5	ALFRFLXARSO -	MRNNFLXADS0 -	\$40.43	\$36.50	\$140.67	\$124.64	\$2,005.87	\$1,736.74	\$5,415.68	\$4,686.03	NA	NA
	Alford	Marianna								· ·		
6	ALFRFLXARSO -	NSN -	\$26.15	\$23.54	\$165.81	\$147.44	\$2,226.71	\$1,936.87	\$6,001.89	\$5,217.22	NA	NA
	Alford	Graceville*										
7	ALFRFLXARS0 -	SNDSFLXARS0 -	\$44.72	\$40.30	\$209.60	\$185.79	\$2,969.76	\$2,572.55	\$8,016.71	\$6,939.96	NA	NA
	Alford	Sneads										
8	ALSPFLXADSO -	APPKFLXADS1 -	\$29.28	\$26.46	\$80.62	\$70.89	\$1,290.87	\$1,108.53	\$3,495.57	\$3,000.03	\$11,995.16	\$10,270.01
	Altamonte Springs	Apopka										
9	ALSPFLXADS0 -	CSLBFLXADS1 -	\$28.86	\$26.11	\$71.20	\$63.04	\$1,027.33	\$888.72	\$2,774.60	\$2,398.69	\$9,416.99	\$8,119.61
	Altamonte Springs	Casselberry										
10	ALSPFLXADS0 -	GLRDFLXADS0 -	\$28.86	\$26.11	\$71.20	\$63.04	\$1,027.33	\$888.72	\$2,774.60	\$2,398.69	\$9,416.99	\$8,119.61
	Altamonte Springs	Goldenrod										
11	ALSPFLXADS0 -	KSSMFLXBDS1 -	\$39.15	\$35.02	\$298.44	\$259.86	\$5,456.27	\$4,646.43	\$14,819.23	\$12,613.70	\$51,478.40	\$43,732.39
	Altamonte Springs	Reedy Creek										
12	ALSPFLXADSO -	LKBRFLXADS1 -	\$29.28	\$26.46	\$80.62	\$70.89	\$1,290.87	\$1,108.53	\$3,495.57	\$3,000.03	\$11,995.16	\$10,270.01
	Altamonte Springs	Lake Brantley										
13	ALSPFLXADS0 -	MNTIFLXADS0 -	\$47.35	\$42.20	\$479.55	\$418.22	\$8,594.36	\$7,327.52	NA	NA	NA	NĀ
	Altamonte Springs	Montverde										
14	ALSPFLXADSO -	MTLDFLXADS1 -	\$29.28	\$26.46	\$80.62	\$70.89	\$1,290.87	\$1,108.53	\$3,495.57	\$3,000.03	\$11,995.16	\$10,270.01
	Altamonte Springs	Maitland										
15	ALSPFLXADSÖ -	NSN -	\$24.88	\$22.10	\$266.41	\$231.31	\$5,042.65	\$4,285.52	\$13,705.64	\$11,642.64	NA	NA
	Altamonte Springs	Celebration*										
16	ALSPFLXADSO -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
	Altamonte Springs	East Orange*										
17	ALSPFLXADS0 -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
	Altamonte Springs	Geneva*										
18	ALSPFLXADS0 -	NSN -	\$24.59	\$21.86	\$259.87	\$225.86	\$4,859.64	\$4,132.88	\$13,204.96	\$11,225.04	NA	NA
	Altamonte Springs	Lake Buena Vista*										

APPENDIX A - DEDICATED INTEROFFICE TRANSPORT PRICE LIST - SPRINT & STAFF ORIGINATING TERMINATING DSO DS1 DS3 003 0C12 Sprint Staff Sprint Staff Sprint Staff Sprint Staff Sprint Staff Prop. Recom. Prop. Recom. Prop. Recom. Prop. Recom. Prop. Recom. 19 ALSPFLXADSO -NSN -\$18.08 \$16.27 \$116.31 \$102.49 \$1,806.98 \$1,554.92 \$4,889.54 \$4,204.95 \$16,727.53 \$14,349.73 Altamonte Springs Orlando\* 20 ALSPFLXADS0 -\$18.08 \$16.27 ŃŚŃ -\$116.31 \$102.49 \$1,806.98 \$1,554.92 \$4,889.54 \$4,204.95 \$16,727.53 \$14,349.73 Altamonte Springs Oviedo\* 21 ALSPFLXADS0 -NSN -\$21.85 \$19.72 \$96.52 \$85.99 \$1.253.06 \$1,092,93 NA NA NΑ NA Altamonte Springs Sanford\* 22 ALSPFLXADS0 -WNDRFLXARSO -\$35.96 \$32.20 \$228.10 \$197.54 \$4,453.34 \$3,778.06 \$12,111.39 \$10,270.68 \$42,300.13 \$35,811.89 Altamonte Springs Windermere 23 ALSPFLXADSO -WNGRFLXADS0 -\$35.67 \$31.95 \$221.57 \$192,09 \$4,270.33 \$3,625.42 \$11,610.72 \$9,853.09 \$40,509.73 \$34,318.56 Altamonte Springs Winter Garden 24 ALSPFLXADS0 -WNPKFLXADS1 -\$29.28 \$26.46 \$80.62 \$70.89 \$1,290.87 \$1,108.53 \$3,495.57 \$3,000.03 \$11,995.16 \$10,270.01 Altamonte Springs Winter Park 25 ALVAFLXARSO -BNSPFLXADS1 -\$38.44 \$34.26 \$282.76 \$243.11 \$5,983.31 \$5,054.15 \$16,297.05 \$13,761.78 \$57,267.86 \$48,296.20 Alva Bonita Springs 26 ALVAFLXARSO -CPCRFLXADS0 -\$38,44 \$34.26 \$243.11 \$5,983.31 \$5,054.15 \$16,297.05 \$13,761.78 \$57,267.86 \$48,296.20 \$282.76 Alva Cape Coral 27 ALVAFLXARSO -CPCRFLXBDS1 -\$38.44 \$34.26 \$282.76 \$243.11 \$5,983.31 \$5,054.15 \$16,297.05 \$13,761.78 \$57,267.86 \$48,296.20 Alva North Cape Coral 28 ALVAFLXARS0 -CYLKFLXBRS0 -\$42.18 \$37.55 \$365.39 \$315.68 \$7,330.30 \$6,209.48 \$19,946.16 \$16,889.88 \$69,812.08 \$59,024.17 Alva Regional Airport ALVAFLXARSO -29 FTMBFLXADS0 -\$40.35 \$35.85 \$324.87 \$278.22 \$6,037.16 \$19,521.41 \$16,451.10 \$68,798.02 \$57,913.29 \$7,161.90 Alva Fort Myers Beach 30 ALVAFLXARSO -FTMYFLXADS0 -\$38.44 \$34.26 \$282.76 \$243.11 \$5,983.31 \$5,054.15 \$16,297.05 \$13,761.78 \$57,267.86 \$48,296.20 Alva Fort Mvers ALVAFLXARS0 -31 FTMYFLXBDS0 -\$38.44 \$34.26 \$282.76 \$243.11 \$5,054.15 \$16,297.05 \$13,761.78 \$57,267.86 \$48,296.20 *\$*5,983.31 Alva East Fort Myers 32 ALVAFLXARSO -FTMYFLXCDS2 -\$40.35 \$35.85 \$324.87 \$278.22 \$7,161,90 \$6,037.16 \$19,521.41 \$16,451.10 \$68,798.02 \$57,913.29 Alva South Fort Myers 33 ALVAFLXARSO -LHACFLXADS0 -\$38.44 \$34.26 \$282.76 \$243.11 \$5,983.31 \$5,054.15 \$16,297.05 \$13,761.78 \$57,267.86 \$48,296.20 Alva Lehigh Acres 34 ALVAFLXARSO -NFMYFLXADSO -\$40.35 \$35.85 \$324.87 \$278.22 \$7,161.90 \$6,037.16 \$19,521.41 \$16,451.10 \$68,798.02 \$57,913.29 Alva North Fort Mvers ALVAFLXARS0 -35 PNISFLXADSO -\$40,35 \$35,85 \$324.87 \$278.22 \$7,161.90 \$6,037.16 \$19,521.41 \$16,451.10 \$68,798.02 \$57,913.29 Alva Pine Island 36 ALVAFLXARSO -SNISFLXADSO -\$40.35 \$35.85 \$324.87 \$278.22 \$7,161.90 \$6,037.16 \$19,521.41 \$16,451.10 \$68,798.02 \$57,913.29 Alva Sanibel-Captiva Isl.

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STA	?F	
	ORIGINATING	TERMINATING	I	S0	D	S1		DS3	0	C3	00	:12
			Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
37	APPKFLXADS1 -	CSLBFLXADS1 -	\$32.51	\$29.32	\$151.82	\$133.94	\$2,318.20	\$1,997.25	\$6,270.17		\$21,412.15	\$18,389.62
	Apopka	Casselberry										, , , , , , , , , , , , , , , , , , ,
38	APPKFLXADS1 -	GLRDFLXADS0 -	\$32.51	\$29.32	\$151.82	\$133,94	\$2,318.20	\$1,997.25	\$6,270.17	\$5,398.73	\$21,412.15	\$18,389.62
	Apopka	Goldenrod										
39	APPKFLXADS1 -	KSSMFLXBDS1 -	\$35.50	\$31.81	\$217.82	\$188.96	\$4,165.40	\$3,537.91	\$11,323.66	\$9,613.66	\$39,483.24	\$33,462.38
	Apopka	Reedy Creek										
40	APPKFLXADS1 -	LKBRFLXADS1 -	\$29.28	\$26.46	\$80.62	\$70.89	\$1,290.87	\$1,108.53	\$3,495.57	\$3,000.03	\$11,995.16	\$10,270.01
	Apopka	Lake Brantley						,				
41	APPKFLXADS1 -	MNTIFLXADS0 -	\$34.05	\$30.60	\$185.82	\$162.29	\$3,269.86	\$2,790.98	ŃĂ	NÁ	NA	NA
	Apopka	Montverde										
42	APPKFLXADS1 -	MTDRFLXARS0 -	\$31.10	\$27.98	\$120.81	\$104.40	\$2,415.78	\$2,046.76	\$6,573.06	\$5,566.86	\$23,000.14	\$19,449.06
	Apopka	Mt. Dora		ļ								
43	APPKFLXADS1 -	MTLDFLXADS1 -	\$29.28	\$26.46	\$80.62	\$70.89	\$1,290.87	\$1,108.53	\$3,495.57	\$3,000.03	\$11,995.16	\$10,270.01
	Apopka	Maitland							, . ,		,	
44	APPKFLXADS1 -	NSN -	\$21.23	\$18.89	\$185,79	\$160.42	\$3,751.78	\$3,176.99	\$10,210.07	\$8,642,60	NA	NA
	Apopka	Celebration*										
45	APPKFLXADS1 -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
	Apopka	East Orange*		-								
46	APPKFLXADS1 -	NSN -	\$20.46	\$18.25	\$168.88	\$146.32	\$3,278.39	\$2,782.16	\$8,914.98	\$7.562.42	\$31,122.33	\$26,356.16
	Apopka	Lake Buena Vista*							10,511.50	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	+=0,000110
47	APPKFLXADS1 -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806,29	\$19,305.70	\$16,500.14
	Apopka	Orlando*				,		1	, , , , , , , , , , , , , , , , , , , ,	, ,,	++0,000000	+ - • / • • • •
48	APPKFLXADS1 -	WNDRFLXARS0 -	\$32.31	\$28.99	\$147.48	\$126.64	\$3,162.47	\$2,669.54	\$8,615.82	\$7,270.65	\$30,304.97	\$25,541.88
	Apopka	Windermere		,		1200101	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	142,000101	+0,010.02	+ / / 2 / 01 00	+30,301.37	+20,011100
49	APPKFLXADS1 -	WNGRFLXADS0 -	\$32.02	\$28.74	\$140.95	\$121.19	\$2,979.45	\$2,516.90	\$8,115.15	\$6,853.05	\$28,514.57	\$24,048.54
	Apopka	Winter Garden			,		, , , , , , , , , , , , , , , , , , , ,	42,01000	+0,110,120	+ 0, 000100	420,0110	+21,010101
50	APPKFLXADS1 -	WNPKFLXADS1 -	\$29.28	\$26.46	\$80,62	\$70.89	\$1,290.87	\$1,108.53	53 495 57	\$3,000.03	\$11,995.16	\$10,270.01
	Apopka	Winter Park		,	100102	+.0.05	+1,200.01	1 41,100.00	40,190.01	43,000.00	<i>v</i> 11 <i>, y y y y y y y y y y</i>	410,210.01
51	ARCDFLXADS0 -	PTCTFLXADS0 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5,877 04	\$19 136 71	\$16 045 73	\$67,927.20	\$56,921.88
	Arcadia	Port Charlotte			,	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	]	1 - 27, 200, 71	+10,010,75		+00,021.00
52	ARCDFLXADS0 -	WCHLFLXADS0 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5.877.04	\$19,136,71	\$16,045,73	\$67,927.20	\$56,921.88
	Arcadia	Wauchula	,	,	,201100	7011142			T+5, 130, 11		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	450,521.00
53	ARCDFLXADS0 -	ZLSPFLXARS0 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5.877.04	519 136 71	\$16 045 73	\$67,927.20	\$56 921 88
	Arcadia	Zolfo Springs	'	, 5 0	1201100	7614142			[ <sup>1,1,1,1,1,1,1,1</sup> ]		÷01,521.20	+50,521.00
54	ASTRFLXARS0 -	CLMTFLXADS0 -	\$43.71	\$39.23	\$193.32	\$168.54	\$3,479.72	52 966 01	\$9,447.79	58 049 07	NA	NA
	Astor	Clermont		+55.25	Y173.32	AT00.24	4J,413.12	V2, 500.01	49,447.79	40,049.07	I NA	NA NA

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STA	77	
	ORIGINATING	TERMINATING	E	S0	D	S1	I	DS3	0	C3	00	:12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
55	ASTRFLXARS0 -	ESTSFLXARSO -	\$43.71	\$39.23	\$193.32	\$168.54	\$3,479.72	\$2,966.01	\$9,447.79	\$8,049.07	NA	NA
	Astor	Eustis										
56	ASTRFLXARSO -	GVLDFLXARS0 -	\$58.16	\$51.51	\$425.71	\$365.97	\$9,018.89	\$7,617.85	\$24,565.74	\$20,742.90	NA	NA
	Astor	Groveland										
57	ASTRFLXARSO -	HOWYFLXARSO -	\$47.74	\$42.82	\$258.16	\$226.28	\$4,328.92	\$3,706.16	NA	. NĂ	NA	NA
	Astor	Howey-in-the-Hills										
58	ASTRFLXARSO -	LDLKFLXARS0 -	\$50.72	\$45.30	\$306.11	\$266.25	\$5,671.00	\$4,825.53	\$15,406.69	\$13,103.68	NA	NA
	Astor	Lady Lake				-						[
59	ASTRFLXARSO -	LSBGFLXADS1 -	\$43.71	\$39.23	\$193.32	\$168.54	\$3,479.72	\$2,966.01	\$9,447.79	\$8,049.07	NA	NA
60	Astor	Leesburg										
60	ASTRFLXARS0 -	MTDRFLXARS0 -	\$43.71	\$39.23	\$193.32	\$168.54	\$3,479.72	\$2,966.01	\$9,447.79	\$8,049.07	NA	NA
61	Astor	Mt. Dora										
61	ASTRFLXARSO -	MTVRFLXARS0 -	\$47.46	\$42.58	\$253.63	\$222.50	\$4,202.03	\$3,600.33	NA	NA	NA	NA
	Astor	Montverde										
62	ASTRFLXARSO -	TVRSFLXADS0 -	\$43.71	\$39.23	\$193.32	\$168.54	\$3,479.72	\$2,966.01	\$9,447.79	\$8,049.07	NA	NA
-	Astor	Tavares										
63	ASTRFLXARS0 -	UMTLFLXARSO -	\$43.71	\$39.23	\$193.32	\$168.54	\$3,479.72	\$2,966.01	\$9,447.79	\$8,049.07	NA	NA
	Astor	Umatilla										
64	AVPKFLXADS0 -	LKPCFLXARS0 -	\$41.33	\$36.67	\$346.49	\$296.24	\$7,767.06	\$6,541.89	\$21,176.98	\$17,831.95	NA	NA
	Avon Park	Lake Placid										
65	AVPKFLXADS0 -	SBNGFLXADS1 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5,877.04	\$19,136.71	\$16,045.73	\$67,927.20	\$56,921.88
6	Avon Park	Sebring										
66	AVPKFLXADSO -	SLHLFLXARSO -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5,877.04	\$19,136.71	\$16,045.73	\$67,927.20	\$56,921.88
67	Avon Park	Spring Lake	+									
° /	AVPKFLXADSO -	WCHLFLXADS0 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5,877.04	\$19,136.71	\$16,045.73	\$67,927.20	\$56,921.88
68	Avon Park BAKRFLXADSO -	Wauchula	A 3 5 . 0.0	140-01								
00	Baker	CRVWFLXADS0 -	\$35.32	\$32.01	\$58.48	\$52.43	\$671.07	\$591.58	NA	NA	NA	NA
60	BAKRFLXADS0 -	Crestview			1035 0.6							
0.9	Baker	DESTFLXADS0 -	\$46.35	\$41.43	\$235.86	\$204.01	\$4,670.51	\$3,959.20	NA	NA	NA	NA
70	BAKEFLXADS0 -	Destin DFSPFLXADS0 -			1005 0.2							
ľ°.	Baker		\$46.35	\$41.43	\$235.86	\$204.01	\$4,670.51	\$3,959.20	NA	NA	NA	NA
71	BAKRFLXADS0 -	DeFuniak Springs FTWBFLXADS0 -			400F 01	1001 01						
ľ'	Baker		\$46.35	\$41.43	\$235.86	\$204.01	\$4,670.51	\$3,959.20	NA	NA	NA	NA
72	BAKET BAKRFLXADS0 -	Fort Walton Beach	401 75	<b>A10 C</b>		101 8-			l			
12	BAKEFLXADSU - Baker	NSN -	\$21.75	\$19.64	\$95.04	\$84.75	\$1,211.58	\$1,058.33	NA	NA	NA	NA
L	Daket	Laurel Hill*						L				

	A	PPENDIX A - DEI	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STAL	<b>T</b>	
	ORIGINATING	TERMINATING	D	so	D	S1	I	DS3	0	Ċ3	00	:12
			Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
73	BAKRFLXADS0 -	SHLMFLXADSO -	\$50.16	\$44.83	\$297.04	\$258.69	\$5,417.23	\$4,613.87	- NA	NA	-	NA NA
	Baker S	Shalimar										
74	BAKRFLXADS0 -	VLPRFLXADSÖ -	\$46.35	\$41.43	\$235.86	\$204.01	\$4,670.51	\$3,959.20	NA	NA	NA	N <i>P</i>
		Valparaiso										
75	BCGRFLXARS1 -	CPHZFLXADS0 -	\$36.25	\$32.78	\$73.38	\$64.86	\$1,088.34	\$939.60	\$2,941.49	\$2,537.89	NA	NÆ
	Boca Grande (	Cape Haze										
76	BCGRFLXARS1 - 1	NSN -	\$22.27	\$20.08	\$103.41	\$91.73	\$1,445.84	\$1,253.71	ŃA	NA	NA	NZ
	Boca Grande H	Englewood*										
77	BCGRFLXARS1 - I	PNGRFLXADS1 -	\$53.97	\$47.78	\$358.26	\$306.06	\$8,096.48	\$6,816.65	\$22,078.19	\$18,583,63	NA	NA
	Boca Grande I	Punta Gorda								,		
78	BCGRFLXARS1 -	PTCTFLXADS0 -	\$36.25	\$32,78	\$73.38	\$64.86	\$1,088.34	\$939.60	\$2,941.49	\$2.537.89	NA	NA
	Boca Grande H	Port Charlotte										
79	BLVWFLXADSO - I	LDLKFLXARSŐ -	\$36.21	\$32,41	\$233.60	\$202.12	\$4,607.07	\$3,906,28	\$12.531.96	\$10,621,46	\$43,804.07	\$37,066.30
	Belleview I	Lady Lake (821)				,						
80		NSN -	\$24.97	\$22.01	\$268.26	\$229.18	\$6,060.16	\$5,102.31	NA	NA	NA	NA
	Belleview	Citra*		· ·								
81		NSN -	\$24.56	\$21.67	\$259.37	\$221.76	\$5,811.26	\$4,894,72	\$15,844,35	\$13.341.95	\$55,901.44	\$47,023.96
	Belleview	Dunnellon*						, . ,		120,012050	,,	+ ,
82		NSN -	\$24.97	\$22.01	\$268.26	\$229.18	\$6,060.16	\$5,102.31	NA	NA	NA	NA
	Belleview	McIntosh*					, , , , , , , , , , , , , , , , , , , ,	10,100101				
83		NSN -	\$20.82	\$18.55	\$176.81	\$152.93	\$3,500.44	\$2,967.36	NA	NA	NA	NA
	Belleview	Orange Springs*		120.00	12.0101	1101100	+3,000111	1 + 2 / 3 0 / 1 3 0				111
84		OCALFLXADSO -	\$36.16	\$32.20	\$232.39	\$197.44	\$5,539.17	54 651 84	\$15 117 94	\$12 693 83	\$53,556.27	\$44,935.36
	1	Ocala	+00110	402120	4202100	4427411	40,000.11	<i>Q1</i> ,051.01	<i>v</i> 10 <i>,</i> 11 <i>,</i> 01	<i>v</i> 12,000.00	\$33,330.27	<i>v</i> 11,000.00
85	BLVWFLXADS0 -	DCALFLXCRS0 -	\$40.67	\$36.13	\$332.11	\$284.25	\$7,364.44	\$6,206,08	\$20 075 49	\$16 913 24	\$70,779.40	\$59,565.92
	1 1	Highlands	,	400110	+332.11	4201120		\$0,200.00	20,070.15	¥10, J13.24	910,113.40	<i>433,303.32</i>
86		DCNFFLXARSO -	\$40.67	\$36.13	\$332.11	\$284.25	\$7,364,44	56 206 08	\$20 075 49	\$16 913 24	\$70,779.40	\$59,565.92
		Forest		+001#0	4002711	+201120	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	+0,200.00	420,013.13	¥10,919,24	Q / 0, / / J. 40	<i>400,000.02</i>
87		OKLWFLXADSO -	\$28.36	\$25.69	\$60.22	\$53.89	\$719.88	\$632.28	\$1,933.46	51 697 13	\$6,409.12	\$5,610.80
		Ocklawaha	.20.00	+20105	700.22	÷33.05	¥,13.00	¥052.20	41,000.40	÷1,05/.15	, , , , , , , , , , , , , , , , , , ,	\$5,010.00
88		SSPRFLXARSO -	\$40.67	\$36.13	\$332.11	\$284,25	\$7,364.44	\$6.206.08	\$20.075.49	\$16,913,24	\$70,779.40	\$59,565.92
	1	Salt Springs	, 10.07	+50.15	7552,11	4204.2J		\$0,200.00	20,013.49	++0, J13.24	, , , , , , , , , , , , , , , , , , ,	<i>433,303.32</i>
89		SVSSFLXARSO -	\$29.48	\$26.63	\$84.98	\$74.53	\$1,412.88	\$1 210 29	53 829 35	53 278 43	\$13,188.76	\$11,265.57
		Silver Springs Shores	, 2, 1, 0	+20.00	Ç01.90	4/1.JJ	····	, <i>1,210.29</i>	45,025.55	, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , ,	YII,200.07
90		NLWDFLXARSO -	\$30.74	\$27.68	\$112.79	\$97.72	\$2 101 20	\$1 859 52	\$5 958 90	\$5 05/ 61	\$20,803.92	\$17,617.24
		Wildwood	790.77	727.00	7++2.19	991.1Z	Y , 1 7 1 . 2 7	Y1,039.32	45,950.90	40,004.01	Y20,003.92	91/,01/.24

		APPENDIX A - DE	EDICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STAL	?F	
	ORIGINATING	TERMINATING	E	S0	D	S1	I	DS3	0	C3	00	:12
			Sprint		Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
91	BNFYFLXARSO -	DFSPFLXADS0 -	\$34.35	\$30.85	\$192.45	\$167.81	\$3,455.32	\$2,945.66	\$9,381.04	\$7,993.39	\$32,536.49	\$27,668.23
	Bonifay	DeFuniak Springs										
92	BNFYFLXARSO - Bonifay	NSN - Chipley*	\$17.95	\$16.16	\$113.43	\$100.09	\$1,726.45	\$1,487.76	\$4,669.25	\$4,021.21	NA	NA
93	BNFYFLXARSO -	NSN -	\$17.95	\$16.16	\$113.43	\$100.09	\$1,726.45	\$1,487.76	\$4,669.25	54 021 21	NA	NA
	Bonifay	Graceville*	1	,10110	+110110	+100.00	+1,,20110	<i>v</i> <b>1</b> <i>7</i> 107.70	\$17005.25	¥1,021.21	1411	142
94	BNFYFLXARSO -	NSN -	\$17.95	\$16.16	\$113.43	\$100.09	\$1,726.45	\$1,487.76	\$4,669.25	\$4,021.21	NA	NA
	Bonifay	Vernon*				,	+=, == == ==	+_, 10, 110	+ 1,000120	41,021,21		
95	BNFYFLXARS0 -	PNLNFLXARSO -	\$37.08	\$33.30	\$252.76	\$221.77	\$4,177.63	\$3,579.98	NA	NA	NA	ŃA
	Bonifay	Ponce de Leon			1		, , , , , , , , , , , , , , , , , , , ,	40,0.5150				
96	BNFYFLXARSO -	RYHLFLXARSO -	\$32.19	\$29.06	\$144.85	\$128.12	\$2,122.99	\$1,834.43	NA	NA	NA	NA
	Bonifay	Reynolds Hill			,	10120	+=,===;;;	1 + 1 , 0 0 1 1 10				
97	BNFYFLXARS0 -	WSTVFLXARSO -	\$29.63	\$26.75	\$88.29	\$77.29	\$1,505.60	\$1,287.63	\$4.083.03	\$3,490.01	\$14,095.90	\$12,022.20
	Bonifay	Westville			,	,		41,201.00	+ 1,000100	407.50101	¢11,050.50	<i>412,022.20</i>
98	BNSPFLXADS1 -	CYLKFLXADS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175,32	\$11,073,56	\$46,609.53	\$39,141,21
	Bonita Springs	Cypress Lake										,
99	BNSPFLXADS1 -	FTMBFLXADS0 -	\$40.35	\$35.85	\$324.87	\$278.22	\$7,161.90	\$6,037.16	\$19,521.41	\$16,451,10	\$68,798.02	\$57,913.29
1	Bonita Springs	Fort Myers Beach								,	,	
100	BNSPFLXADS1 -	FTMDFLXARS0 -	\$50.90	\$44.82	\$557.96	\$476.24	\$12,720.60	\$10,705.28	\$34,692.75	\$29,189.48	NA	NA
	Bonita Springs	Fort Meade							. ,			
101	BNSPFLXADS1 -	FTMYFLXADS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Bonita Springs	Fort Myers						. ,			. ,	
102	BNSPFLXADS1 -	FTMYFLXBDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Bonita Springs	East Fort Myers							· · ·		,	· <b>,</b>
103	BNSPFLXADS1 -	GLGCFLXADSO -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Bonita Springs	Golden Gate										· •
104	BNSPFLXADS1 -	NNPLFLXADS1 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Bonita Springs	North Naples									. ,	
105	BNŠPFLXADS1 -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Bonita Springs	Naples										
106	BNSPFLXADS1 -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Bonita Springs	Naples Moorings										,
107	BNSPFLXADS1 -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Bonita Springs	Naples Southeast										,
108	BSHNFLXADSO -	HOWYFLXARS0 -	\$39.09	\$34.81	\$297.24	\$255.18	\$6,388.38	\$5,391.99	NA	NA	NA	NA
	Bushnell	Howey-in-the-Hills						· ·				

_		APPENDIX A - DE	EDICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STA	FF	
	ORIGINATING	TERMINATING	L	DS0	D	S1	I	DS3	0	C3	00	:12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
109	BSHNFLXADSO -	LSBGFLXADS1 -	\$36.16	\$32.20	\$232.39	\$197.44	\$5,539.17	\$4,651.84	\$15,117.94	\$12,693.83	\$53,556.27	\$44,935.36
	Bushnell	Leesburg										
110	BSHNFLXADS0 -	WLWDFLXARSO -	\$41.27	\$36.62	\$345.18	\$295.15	\$7,730.46	\$6,511.36	\$21,076.84	\$17,748.44	\$74,360.19	\$62,552.60
	Bushnell	Wildwood									. ,	
111	BVHLFLXADS0 -	CHSWFLXARS0 -	\$42.95	\$38.19	\$382.30	\$329.78	\$7,803.69	\$6,604.32	\$21,241.24	\$17,970.06	NA	NA
	Beverly Hills	Chassahowitzka								. ,		
112	BVHLFLXADSO -	CRRVFLXADS0 -	\$29.90	\$26.98	\$94.13	\$82.16	\$1,669.09	\$1,423.98	\$4,530.30	\$3,863.06	\$15,695.32	\$13,356.25
	Beverly Hills	Crystal River										,
113	BVHLFLXADS0 -	HMSPFLXARS0 -	\$29.90	\$26.98	\$94.13	\$82.16	\$1,669.09	\$1,423.98	\$4,530.30	\$3,863.06	\$15,695.32	\$13,356.25
	Beverly Hills	Homosassa Springs								,		
114	BVHLFLXADS0 -	INVRFLXADS0 -	\$29.90	\$26.98	\$94.13	\$82,16	\$1,669.09	\$1,423.98	\$4,530.30	\$3,863.06	\$15,695.32	\$13,356.25
	Beverly Hills	Inverness				-						120,000120
115	BVHLFLXADS0 -	NSN -	\$14.04	\$12.73	\$26.97	\$24.33	\$272.09	\$242.87	\$726.41	\$648.12	\$2,345.17	\$2,088.60
	Beverly Hills	Dunnellon*									+2,010121	+2,000100
116	BWLGFLXARS0 -	FTMDFLXARS0 -	\$53.51	\$47.40	\$350.94	\$299.95	\$7,891.51	\$6,645,69	\$21,517.44	\$18,115 92	NA	NA
	Bowling Green	Fort Meade						,	,,	+10,110132		
117	BWLGFLXARSO -	WCHLFLXADS0 -	\$53.51	\$47.40	\$350.94	\$299.95	\$7,891.51	\$6,645,69	\$21,517.44	\$18,115 92	NA	NA
	Bowling Green	Wauchula						+0,010100	+==,0=,11	110,110.52		
118	BWLGFLXARSO -	ZLSPFLXARS0 -	\$53.51	\$47.40	\$350.94	\$299.95	\$7,891.51	\$6.645.69	\$21,517,44	\$18 115 92	NA	NA
	Bowling Green	Zolfo Springs						, ,, , , , , , , , , , , , , , , , , , ,	,,	120/110102		
119	CFVLFLXADS0 -	NSN -	\$18.48	\$16.60	\$125.03	\$109.76	\$2,050.99	\$1,758.44	\$5,557.11	\$4 761 74	ŃÁ	NA
	Crawfordville	Alligator Point*				,	,-,	+1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	+0,00/111	+ + + + + + + + + + + + + + + + + + + +		1173
120	CFVLFLXADS0 -	NSN -	\$18,48	\$16.60	\$125.03	\$109.76	\$2,050.99	\$1,758.44	\$5,557.11	\$4 761 74	NA	NA
[	Crawfordville	Carrabelle*		,	,	12001.0	42,000100	+1, , 00111	+0,007.11	<i>41,</i> / 01. / 1	ITA	INA
121	CFVLFLXADSO -	PANCFLXARS0 -	\$28.49	\$25.81	\$63.18	\$56.36	\$802.84	\$701.48	\$2,160.43	\$1 886 44	\$7,220.77	\$6,287.78
	Crawfordvılle	Panacea	,	,	400110	+00.00	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	Q701.40	92,100.45	\$1,000.44	97,220.77	90,201.10
	CFVLFLXADS0 -	SPCPFLXADS0 -	\$30.16	\$27.19	\$99.89	\$86.96	\$1,830.14	\$1,558.31	\$4,970.90	\$4,230,55	\$17,270.87	\$14,670.38
	Crawfordville	Sopchoppy		121125	400100	400.90	<i>\\\\\\\\\\\\\</i>	<i><b>41,330.31</b></i>	<i>4</i> <b>1</b> , <i>5</i> / <b>0</b> . <i>5</i> 0	99,200.00	917,270.07	914,070.50
123	CFVLFLXADS0 -	STMKFLXARS0 -	\$28.36	\$25.69	\$60.22	\$53.89	\$719.88	\$632.28	\$1 933 76	\$1,697.13	\$6,409.12	\$5,610.80
	Crawfordville	St. Marks	120.00	,20.05	+00.22	400.00	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	9052.20	Y1, 500.40	Y1,09/.13	70,409.12	22,010.80
124	CFVLFLXADS0 -	TLHSFLXADS0 -	\$30.16	\$27.19	\$99.89	\$86.96	\$1,830.14	\$1 550 57	\$4,970.90	\$4,230.55	\$17,270.87	\$14,670.38
	Crawfordville	Calhoun	100.10	72.112	<i>433.03</i>	¥00.90	41,000.14	φ1,000.01	Y1, 570.90	Y1,200.00	Q11,210.81	914,070,38
125	CHLKFLXARS0 -	GNVLFLXARSO -	\$54.26	\$48.26	\$363.03	\$313.71	\$7 264 42	66 154 52	\$19,765.92	616 720 FF		177
	Cherry Lake	Greenville	<b>\$3120</b>	Y 10.20	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4919./L	Y1,204.42	40,104.00	419, 105.9Z	\$10, 139.55	NA	NA
126	CHLKFLXARSO -	LEE FLXARSO -	\$39.30	\$35.55	\$122.36	\$109.37	\$1,493.43	\$1,309.34	NA	NA	177	
	Cherry Lake	Lee	435.30	400.00	Y122.30	9109.37	4490.43	\$1,309.34	NA	NA	NA	NA

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STA	FF	- 1114
	ORIGINATING	TERMINATING	I	DS0	D	S1	L I	DS3	0	C3	00	:12
			Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
127	CHLKFLXARS0 -	MDSNFLXADS0 -	\$35.80	\$32.40	\$66.15	\$58.83	\$885.81	\$770.68	\$2,387.41	\$2,075.75	NA	
	Cherry Lake	Madison										
128	CHSWFLXARSO -	CRRVFLXADS0 -	\$55.46	\$49.25	\$382.30	\$329.78	\$7,803.69	\$6,604.32	\$21,241.24	\$17,970.06	NA	NA
	Chassahowitzka	Crystal River										
129	CHSWFLXARS0 -	HMSPFLXARS0-	\$55.46	\$49.25	\$382.30	\$329.78	\$7,803.69	\$6,604.32	\$21,241.24	\$17,970.06	NA	NA
	Chassahowitzka	Homosassa Springs							,			
130	CHSWFLXARSO -	INVRFLXADS0 -	\$55.46	\$49.25	\$382.30	\$329.78	\$7,803.69	\$6,604.32	\$21,241.24	\$17,970.06	NĂ	NA
	Chassahowitzka	Inverness										
131	CLMTFLXADS0 -	ESTSFLXARS0 -	\$31.10	\$27.98	\$120.81	\$104.40	\$2,415.78	\$2,046.76	\$6.573.06	\$5,566.86	\$23,000.14	\$19,449.06
	Clermont	Eustis									/	
132	CLMTFLXADSO -	GVLDFLXARS0 -	\$36.16	\$32.20	\$232.39	\$197.44	\$5,539.17	\$4,651.84	\$15,117.94	\$12,693,83	\$53,556.27	\$44.935.36
	Clermont	Groveland							,			
133	CLMTFLXADS0 -	HOWYFLXARS0 -	\$34.25	\$30.78	\$190.36	\$166.07	\$3,396.75	\$2,896.81	NA	NA	NA	NA
	Clermont	Howey-in-the-Hills						,				
134	CLMTFLXADS0 -	KSSMFLXBDS1 -	\$29.11	\$26.32	\$76.87	\$67.77	\$1,185.94	\$1,021.01	\$3,208.52	\$2,760.61	\$10,968.67	\$9,413.83
	Clermont	Reedy Creek			,		,	,		1-,	120,00000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
135	CLMTFLXADS0 -	LDLKFLXARS0 -	\$36.43	\$32.59	\$238.30	\$206.04	\$4,738.83	\$4,016.19	\$12,892.45	\$10,922,13	\$45,093.15	\$38,141.50
	Clermont	Lady Lake				,			,		,,	1
136	CLMTFLXADSO -	LSBGFLXADS1 -	\$31.10	\$27.98	\$120,81	\$104.40	\$2,415.78	\$2,046.76	\$6.573.06	\$5,566.86	\$23,000.14	\$19,449.06
	Clermont	Leesburg	10000	12.120	100101	+101110	+2,1131.70	+2,010.70	+0,010.00	43,300.00	\$20,000.14	<i>v</i> 1 <i>)</i> , 11 <i>)</i> .00
137	CLMTFLXADS0 -	MNTIFLXADSO -	\$33.15	\$29.77	\$165.91	\$143.85	\$3,195.42	\$2,712.96	\$8,688.01	\$7 373 11	\$30,310.68	\$25,679.18
	Clermont	Montverde	,		1200102	+110100	+0,190112	42,712.50	40,000.01	<i>••••</i> ••••••••••••••••••••••••••••••••	\$50,510.00	<i>v</i> 23,075,10
138	CLMTFLXADSO -	MTDRFLXARS0 -	\$31.10	\$27.98	\$120.81	\$104.40	\$2,415.78	\$2,046.76	56 573 06	\$5,566.86	\$23,000.14	\$19,449.06
	Clermont	Mt. Dora	401110	+21100	+120101	¥101.10	<i>42,113.10</i>	<i>42,040.70</i>	\$0,515.00	\$3,300.00	\$25,000.14	Q19,449.00
139	CLMTFLXADS0 -	NSN -	\$24.71	\$21.96	\$262.66	\$228.19	\$4,937.72	\$4,198.00	\$13,418.58	\$11 403 21	NA	NA
	Clermont	Celebration*	10111	421.90	4202100	4220.15	41,001.12	\$1,190.00	¥15,110.50	VII, 405.21	1123	142
140	CLMTFLXADS0 -	NSN -	\$17.56	\$15.83	\$104.80	\$92.90	\$1,484.88	\$1,286.27	\$4,008.35	53 169 98	\$13,576.43	\$11,721.45
-	Clermont	Lake Buena Vista*	+1,.00	<b>410.00</b>	0104.00	<i>QJ2.J0</i>	<b>\$1,404.00</b>	<i>Q1,200.21</i>	<b>41</b> ,000.33	\$3,409.90	Q10,070.40	911,721.45
141	CLMTFLXADS0 -	NSN -	\$24.72	\$21.97	\$262.92	\$228.41	\$4,945.04	\$4 204 11	\$13 438 61	\$11,419.92	\$46,793.78	\$39,692.50
	Clermont	Orlando*	463.72	721.57	Y202.J2	9220.41	94,545,04	V4,204.11	1910,400.01	YII, 413.92	940,193.10	409,092.00
142	CLMTFLXADS0 -	TVRSFLXADS0 -	\$31.10	\$27.98	\$120.81	\$104.40	\$2,415.78	\$2,046.76	56 573 06	35 566 86	\$23,000.14	\$19,449.06
	Clermont	Tavares	401.10	<i>4211.0</i>	4120.01	910 <b>1.</b> 40	Y2,413.70	72,040.70	40,0,00	40,00.00	Y23,000.14	YIJ, 449.00
143	CLMTFLXADS0 -	UMTLFLXARS0 -	\$34.39	\$30.89	\$193.32	\$168.54	\$3,479.72	\$2 966 01	\$9,447.79	59 0/0 07	NA	NA
<u> </u>	Clermont	Umatilla	457.55	YJU.03	, JZ , JZ	Q100.04	43,413.12	42,900.UI	45,441.19	90,049.07	NA NA	NA
144	CLMTFLXADS0 -	WNDRFLXARS0 -	\$35.79	\$32.06	\$224.36	\$194.41	\$1 3/9 11	63 600 FF	C11 004 04	610 021 26	\$41,273.64	624 055 71
[	Clermont	Windermere	455.75	YJ2.00	Y224.J0	9174.41	4,040.41	τς.υευ, ετ	911,024.34	910,031.20	241,213.04	204,900./I
	OTCTUOILC	Intudetillete	1	L					L	L		

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STA	FF	
	ORIGINATING	TERMINATING	L	S0	D	\$1	I	os3	0	C3	00	:12
			Sprint Prop.	Staff Recom.								
145	CLMTFLXADS0 -	WNGRFLXADS0 -	\$35.50	\$31.81	\$217.82	\$188.96	\$4,165.40		\$11,323.66		\$39,483.24	\$33,462.38
	Clermont	Winter Garden			,			+0,00,001	+11,020.00	+3,013.00	4007100121	+00,102.00
146	CLTNFLXARS0 -	LBLLFLXADS0 -	\$38.94	\$35.03	\$116.71	\$100.99	\$2,301.09	\$1,951.11	\$6,259.30	\$5,305.16	NA	NA
	Clewiston	LaBelle					,		, .,	- ,		
147	CLTNFLXARSO -	MRHNFLXARS0 -	\$38.94	\$35.03	\$116.71	\$100.99	\$2,301.09	\$1,951.11	\$6,259,30	\$5,305.16	NA	NA
	Clewiston	Moore Haven										
148	CPCRFLXADS0 -	CPCRFLXBDS1 -	\$29.06	\$26.28	\$75.74	\$66.82	\$1,154.22	\$994.55	\$3,121.73	\$2,688.23	\$10,658.33	\$9,154.99
	Cape Coral	North Cape Coral								. ,	,	, . ,
149	CPCRFLXADS0 -	FTMBFLXADS0 -	\$34.40	\$30.90	\$193.58	\$168.76	\$3,487.04	\$2,972.12	\$9,467.82	\$8,065.77	\$32,846.83	\$27,927.07
	Cape Coral	Fort Myers Beach										, ,
150	CPCRFLXADS0 -	FTMYFLXADS0 -	\$29.06	\$26.28	\$75.74	\$66.82	\$1,154.22	\$994.55	\$3,121.73	\$2,688.23	\$10,658,33	\$9,154.99
	Cape Coral	Fort Myers										····
151	CPCRFLXADS0 -	FTMYFLXBDS0 -	\$38.44	\$34.26	\$282.76	\$243.11	\$5,983.31	\$5,054.15	\$16,297.05	\$13,761.78	\$57,267.86	\$48,296.20
	Cape Coral	East Fort Myers										· ,
152	CPCRFLXADS0 -	LHACFLXADSO -	\$38.44	\$34.26	\$282.76	\$243.11	\$5,983.31	\$5,054.15	\$16,297.05	\$13,761.78	\$57,267.86	\$48,296.20
	Cape Coral	Lehigh Acres										- ,
153	CPCRFLXADS0 -	NFMYFLXADS0 -	\$29.06	\$26.28	\$75.74	\$66.82	\$1,154.22	\$994.55	\$3,121.73	\$2,688.23	\$10,658.33	\$9,154.99
	Cape Coral	North Fort Myers										
154	CPCRFLXADS0 -	PNGRFLXADS1 -	\$41.97	\$37.20	\$360.61	\$308.02	\$8,162.37	\$6,871.60	\$22,258.44	\$18,733.96	\$78,585.53	\$66,076.87
	Cape Coral	Punta Gorda										
155	CPCRFLXADS0 -	PNISFLXADS0 -	\$34.40	\$30.90	\$193.58	\$168.76	\$3,487.04	\$2,972.12	\$9,467.82	\$8,065.77	\$32,846.83	\$27,927.07
	Cape Coral	Pine Island										
156	CPCRFLXADS0 -	SNISFLXADSO -	\$34.40	\$30.90	\$193.58	\$168.76	\$3,487.04	\$2,972.12	\$9,467.82	\$8,065.77	\$32,846.83	\$27,927.07
	Cape Coral	Sanibel-Captiva Isl.										
157	CPCRFLXBDS1 -	NFMYFLXADS0 - North	\$29.06	\$26.28	\$75.74	\$66.82	\$1,154.22	\$994.55	\$3,121.73	\$2,688.23	\$10,658.33	\$9,154.99
	North Cape Coral	Fort Myers										
158	CPCRFLXBDS1 -	PNGRFLXADS1 -	\$41.97	\$37.20	\$360.61	\$308.02	\$8,162.37	\$6,871.60	\$22,258.44	\$18,733.96	\$78,585.53	\$66,076.87
	North Cape Coral	Punta Gorda										
159	CPCRFLXBDS1 -	PNISFLXADS0 -	\$34.40	\$30.90	\$193.58	\$168.76	\$3,487.04	\$2,972.12	\$9,467.82	\$8,065.77	\$32,846.83	\$27,927.07
	North Cape Coral	Pine Island										
160	CPCRFLXBDS1 -	PNISFLXADS0 -	\$34.40	\$30.90	\$193.58	\$168.76	\$3,487.04	\$2,972.12	\$9,467.82	\$8,065.77	\$32,846.83	\$27,927.07
	North Cape Coral	Pine Island										
161	CPCRFLXBDS1 -	SNISFLXADS0 -	\$34.40	\$30.90	\$193.58	\$168.76	\$3,487.04	\$2,972.12	\$9,467.82	\$8,065.77	\$32,846.83	\$27,927.07
	North Cape Coral	Sanibel-Captıva Isl.										
162	CPCRFLXBDS1 -	SNISFLXADSO -	\$34.40	\$30.90	\$193.58	\$168.76	\$3,487.04	\$2,972.12	\$9,467.82	\$8,065.77	\$32,846.83	\$27,927.07
	North Cape Coral	Sanıbel-Captiva Isl.		1								

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STAI		
	ORIGINATING	TERMINATING	E	s0	D	S1	I	DS3	0	C3	00	12
			Sprint Prop.	Staff Recom.								
163	CPHZFLXADS0 -	NSN -	\$17.71	\$16.04	\$30.02	\$26.87	\$357.50	\$314.11	NA	NA	NA	NA
	Cape Haze	Englewood*										
164	CPHZFLXADS0 -	PNGRFLXADS1 -	\$53.97	\$47.78	\$358.26	\$306.06	\$8,096.48	\$6,816.65	\$22,078.19	\$18,583.63	NA	NA
	Cape Haze	Punta Gorda										
165	CPHZFLXADS0 -	PTCTFLXADS0 -	\$36.25	\$32.78	\$73.38	\$64.86	\$1,088.34	\$939.60	\$2,941.49	\$2,537.89	NA	NA
	Cape Haze	Port Charlotte										
166	CRRVFLXADS0 -	HMSPFLXARS0 -	\$29.90	\$26.98	\$94.13	\$82.16	\$1,669.09	\$1,423.98	\$4,530.30	\$3,863.06	\$15,695.32	\$13,356.25
	Crystal River	Homosassa Springs										
167	CRRVFLXADS0 -	INVRFLXADS0 -	\$29.90	\$26.98	\$94.13	\$82.16	\$1,669.09	\$1,423.98	\$4,530.30	\$3,863.06	\$15,695.32	\$13,356.25
	Crystal River	Inverness										
168	CRRVFLXADS0 -	NSN -	\$18.30	\$16.45	\$121.10	\$106.49	\$1,941.19	\$1,666.86	\$5,256.71	\$4,511.19	\$18,040.49	\$15,444.84
	Crystal River	Yankeetown*										
169	CRVWFLXADS0 -	DESTFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
1	Crestview	Destin	1						·			
170	CRVWFLXADS0 -	DFSPFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
	Crestview	DeFuniak Springs										
171	CRVWFLXADS0 -	FTWBFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
	Crestview	Fort Walton Beach										
172	CRVWFLXADS0 -	NSN -	\$18.12	\$16.38	\$36.56	\$32.32	\$540.51	\$466.75	NA	NA	NA	NA
	Crestview	Laurel Hill*										
173	CRVWFLXADS0 -	SHLMFLXADS0 -	\$36.44	\$32.60	\$238.56	\$206.26	\$4,746.15	\$4,022.29	\$12,912.48	\$10,938.84	\$45,164.77	\$38,201.24
	Crestview	Shalimar	[									
174	CRVWFLXADS0 -	VLPRFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
	Crestview	Valparaiso										
175	CSLBFLXADS1 -	GLRDFLXADS0 -	\$28.86	\$26.11	\$71.20	\$63.04	\$1,027.33	\$888.72	\$2,774.60	\$2,398.69	\$9,416.99	\$8,119.61
	Casselberry	Goldenrod										
176	CSLBFLXADS1 -	KSSMFLXBDS1 -	\$38.72	\$34.67	\$289.02	\$252.01	\$5,192.73	\$4,426.63	\$14,098.26	\$12,012.36	\$48,900.23	\$41,581.98
	Casselberry	Reedy Creek										
177	CSLBFLXADS1 -	LKBRFLXADS1 -	\$32.51	\$29.32	\$151.82	\$133.94	\$2,318.20	\$1,997.25	\$6,270.17	\$5,398.73	\$21,412.15	\$18,389.62
	Casselberry	Lake Brantley							1			
178	CSLBFLXADS1 -	MNTIFLXADS0 -	\$46.93	\$41.84	\$470.14	\$410.37	\$8,330.83	\$7,107.71	NA	NA	NA	NA
	Casselberry	Montverde										
179	CSLBFLXADS1 -	MTLDFLXADS1 -	\$32.51	\$29.32	\$151.82	\$133.94	\$2,318.20	\$1,997.25	\$6,270.17	\$5,398.73	\$21,412.15	\$18,389.62
	Casselberry	Maitland	1									
180	CSLBFLXADS1 -	NSN -	\$24.46	\$21.75	\$256.99	\$223.46	\$4,779.11	\$4,065.71	\$12,984.66	\$11,041.30	NA	NA
[	Casselberry	Celebration*		<b>\</b>								

		APPENDIX A - DI	EDICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STA	FF	
	ORIGINATING	TERMINATING	I	DS0	D	S1	I	DS3	0	C3	00	212
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
181	CSLBFLXADS1 -	NSN -	\$18.08	\$16.27	\$116.31	\$102.49	\$1,806.98	\$1,554.92	\$4,889.54	\$4,204.95	\$16,727.53	\$14,349.73
	Casselberry	East Orange*										
182	CSLBFLXADS1 -	NSN -	\$18.08	\$16.27	\$116.31	\$102.49	\$1,806.98	\$1,554.92	\$4,889.54	\$4,204.95	\$16,727.53	\$14,349.73
	Casselberry	Geneva*										
183	CSLBFLXADS1 -	NSN -	\$23.69	\$21.11	\$240.08	\$209.36	\$4,305.72	\$3,670.88	\$11,689.58	\$9,961.12	\$40,539.32	\$34,475.77
	Casselberry	Lake Buena Vista*										. ,
184	CSLBFLXADS1 -	NSN -	\$18.08	\$16.27	\$116.31	\$102.49	\$1,806.98	\$1,554.92	\$4,889.54	\$4,204.95	\$16,727.53	\$14,349.73
	Casselberry	Orlando*										
185	CSLBFLXADS1 -	NSN -	\$18.08	\$16.27	\$116.31	\$102.49	\$1,806.98	\$1,554.92	\$4,889.54	\$4,204.95	\$16,727.53	\$14,349.73
	Casselberry	Oviedo*										
186	CSLBFLXADS1 ~	NSN -	\$20.41	\$18.38	\$167.72	\$149.04	\$2,280.40	\$1,981.65	NA	NA	NA	NA
	Casselberry	Sanford*										
187	CSLBFLXADS1 -	WNDRFLXARS0 -	\$35.54	\$31.85	\$218.69	\$189.69	\$4,189.80	\$3,558.26	\$11,390.42	\$9,669.34	\$39,721.96	\$33,661.49
	Casselberry	Windermere						. ,	. ,	,		
188	CSLBFLXADS1 -	WNGRFLXADS0 -	\$35.24	\$31.60	\$212.15	\$184.24	\$4,006.79	\$3,405.62	\$10,889.74	\$9,251,75	\$37,931.56	\$32,168.15
	Casselberry	Winter Garden						,			,,	101,100110
189	CSLBFLXADS1 -	WNPKFLXADS1 -	\$28,86	\$26.11	\$71.20	\$63.04	\$1,027.33	\$888.72	\$2,774.60	\$2,398,69	\$9,416.99	\$8,119.61
	Casselberry	Winter Park								12,000.05	+5,110155	40/110101
190	CTDLFLXARSO -	GDRGFLXADS0 -	\$32.75	\$29.52	\$157.23	\$138.45	\$2,469.49	\$2,123.43	\$6,684.06	\$5,743,94	NA	NA
	Cottondale	Grand Ridge						, .,	+ 0,001100	+0, / 10101		
191	CTDLFLXARS0 -	GNWDFLXARS0 -	\$32.53	\$29.34	\$152.26	\$134.30	\$2,330.41	\$2,007.42	\$6,303.55	\$5,426.57	NA	NA
	Cottondale	Greenwood					,			10,120101		
192	CTDLFLXARSO -	MALNFLXARSO -	\$32.53	\$29.34	\$152.26	\$134.30	\$2,330.41	\$2,007.42	\$6,303.55	\$5 426 57	NA	NA
	Cottondale	Malone		/	, _ 0 _ 1 _ 0	4101100	+1/000111	42,00,12	1 + 0, 303.33	\$5,120.51		1413
193	CTDLFLXARSO -	MRNNFLXADS0 -	\$29.63	\$26.75	\$88.29	\$77.29	\$1,505.60	\$1,287.63	\$4,083.03	\$3.490.01	\$14,095.90	\$12,022,20
	Cottondale	Marianna	,	1	100120	+ / / 20	+1,000.00	1,20,.00	<b>41,003.0</b> 3	\$5,450.01	<i>Q14,033.30</i>	912,022.20
194	CTDLFLXARS0 -	NSN -	\$17.95	\$16.16	\$113.43	\$100.09	\$1,726.45	\$1,487.76	\$4,669.25	\$4,021.21	NA	NA
	Cottondale	Chipley*				+=00105	+ -, + - • • • •	1 1 1 1 1 1 1 1 1 1	41,005.25	<i>41,021.21</i>		
195	CTDLFLXARS0 -	NSN -	\$17.95	\$16.16	\$113,43	\$100.09	\$1,726.45	\$1,487.76	\$4,669.25	\$4 021 21	NA	NA
	Cottondale	Graceville*	1	, _ 0 0	+110110	+200100	<i>41,720110</i>	<i>Q</i> 1,407.70	41,005.25	94,021,21		INA I
196	CTDLFLXARSO -	SNDSFLXARS0 -	\$32.75	\$29.52	\$157.23	\$138.45	\$2,469,49	\$2,123.43	\$6,684.06	\$5 743 94	NA	NA
	Cottondale	Sneads	,	, 20,02	÷107.20	7100.10	+2,105.15	-2,123.43	40,004.00	YJ, (YJ. 34		INA INA
197	CYLKFLXADS0 -	CPCRFLXBDS1 -	\$29.06	\$26.28	\$75.74	\$66.82	\$1,154.22	\$994.55	\$3,121.73	52 688 23	\$10,658.33	\$9,154.99
	Cypress Lake	North Cape Coral	,	. 20. 20	Ŧ, <b>3.</b> ,1	+00.02	++,+03.22	\$554.33	+5,121.75	<i>42,000.23</i>	1,10,030.33	, , , , , , , , , , , , , , , , , , ,
198	CYLKFLXADSO -	CYLKFLXBRS0 -	\$34.71	\$31.16	\$200.47	\$174.50	\$3,679.81	\$3,132.90	\$9,995.20	58 505 64	\$34,732.72	\$29,500.05
	Cypress Lake	Regional Airport	1 70.1.71	, 54.10	2200.17	71,1,30	<i>45,0,5</i> .01	+5,152.90	( , <i>, , , , , , , , , , , , , , , , , ,</i>	90,000.04	934,132.12	<i>423,300.03</i>

	APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STAI	F	
ORIGINATING	TERMINATING	E	so	D	S1	I	583	0	C3	00	:12
		Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
		Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
199 CYLKFLXADSO -	FTMBFLXADS0 -	\$30.97	\$27.87	\$117.84	\$101.93	\$2,332.81	\$1,977.56	\$6,346.09	\$5,377.55	\$22,188.50	\$18,772.08
Cypress Lake	Fort Myers Beach										
200 CYLKFLXADSO -	FTMYFLXADSO -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
Cypress Lake	Fort Myers										
201 CYLKFLXADSO -	FTMYFLXBDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
Cypress Lake	East Fort Myers										
202 CYLKFLXADS0 -	FTMYFLXCDS2 -	\$30,97	\$27.87	\$117.84	\$101.93	\$2,332.81	\$1,977.56	\$6,346.09	\$5,377.55	\$22,188.50	\$18,772.08
Cypress Lake	South Fort Myers		<b> </b> i								
203 CYLKFLXADSO -	LHACFLXADS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
Cypress Lake	Lehigh Acres										
204 CYLKFLXADSO -	NFMYFLXADS0 -	\$30.97	\$27.87	\$117.84	\$101.93	\$2,332.81	\$1,977.56	\$6,346.09	\$5,377.55	\$22,188.50	\$18,772.08
Cypress Lake	North Fort Myers										
205 CYLKFLXADS0 -	PNISFLXADS0 -	\$30.97	\$27.87	\$117.84	\$101.93	\$2,332.81	\$1,977.56	\$6,346.09	\$5,377.55	\$22,188.50	\$18,772.08
Cypress Lake	Pine Island										
206 CYLKFLXADSO -	SNISFLXADS0 -	\$30.97	\$27.87	\$117.84	\$101.93	\$2,332.81	\$1,977.56	\$6,346.09	\$5,377.55	\$22,188.50	\$18,772.08
Cypress Lake	Sanibel-Captiva Isl.										
207 CYLKFLXBRS0 -	FTMYFLXCDS2 -	\$34.71	\$31.16	\$200.47	\$174.50	\$3,679.81	\$3,132.90	\$9,995,20	\$8,505.64	\$34,732.72	\$29,500.05
Regional Airport	South Fort Myers								·		
208 DDCYFLXADS1 -	NSN -	\$17.54	\$15.90	\$27.23	\$24.54	\$279,41	\$248.98	NA	NA	NA	N
Dade City	Tampa-Central*										
209 DDCYFLXADS1 -	NSN -	\$17.54	\$15.90	\$27.23	\$24.54	\$279.41	\$248.98	NA	ŇA	NA	N
Dade City	Tampa-North*										
210 DDCYFLXADS1 -	NSN -	\$17.54	\$15.90	\$27.23	\$24.54	\$279.41	\$248.98	NA	NA	NA	N
Dade City	Zephryhills*										
211 DDCYFLXADS1 -	SNANFLXARSO -	\$28.87	\$26.12	\$71.55	\$63.34	\$1,037.09	\$896.86	\$2,801.30	\$2,420.97	\$9,512.48	\$8,199.25
Dade City	San Antonio									. ,	
212 DDCYFLXADS1 -	TLCHFLXARSO -	\$28.87	\$26.12	\$71.55	\$63.34	\$1,037.09	\$896.86	\$2,801.30	\$2,420.97	\$9,512.48	\$8,199.25
Dade City	Trılacoochee									. ,	
213 DESTFLXADSO -	DFSPFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
Destin	DeFuniak Springs										
214 DESTFLXADSO -	FRPTFLXARS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367,62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
Destin	Freeport				,,	,				,	,
215 DESTFLXADSO -	FTWBFLXADSO -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
Destin	Fort Walton Beach								,		,
216 DESTFLXADSO -	GLDLFLXARS0 -	\$36.41	\$32.57	\$237.87	\$205.68	\$4,726.63	\$4.006.01	\$12,859.07	\$10.894.29	\$44,973.79	\$38,041.95
Destin	Glendale	1						1			

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STA	FF	
	ORIGINATING	TERMINATING	T E	S0	D	S1	I	053	0	С3	00	:12
			Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
217	DESTFLXADS0 -	PNLNFLXARS0 -	\$36.40	\$32.56	\$237.69	\$205.53	\$4,721.75	\$4,001.94	NA	NA		NA
	Destin	Ponce de Leon										
218	DESTFLXADSO -	SGBHFLXARSO -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
	Destin	Seagrove Beach					-					
219	DESTFLXADS0 -	SHLMFLXADS0 -	\$36.44	\$32.60	\$238.56	\$206.26	\$4,746.15	\$4,022.29	\$12,912.48	\$10,938.84	\$45,164.77	\$38,201.24
	Destin	Shalimar										
220	DESTFLXADS0 -	SNRSFLXARS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
	Destin	Santa Rosa Beach									,	
221	DESTFLXADS0 -	VLPRFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
	Destin	Valparaiso									1,	
222	DFSPFLXADS0 -	FRPTFLXARSO -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367,62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
	DeFuniak Springs	Freeport						, . ,		,		
223	DFSPFLXADS0 -	FTWBFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3.367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
	DeFuniak Springs	Fort Walton Beach						, . ,	120,000100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,000,100100	+02/012002
224	DFSPFLXADS0 -	GLDLFLXARS0 -	\$28.37	\$25.70	\$60.48	\$54.10	\$727.20	\$638.39	\$1,953.49	\$1,713,84	\$6,480.74	\$5,670.53
	DeFuniak Springs	Glendale					1	1 1000100	11,000110	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	+ 0 / 1000 / 1	+0,0,0000
225	DFSPFLXADS0 -	NSN -	\$22.51	\$19.96	\$213.95	\$183.90	\$4,539.95	\$3,834.37	NA	NA	NA	NA
	DeFuniak Springs	Paxton*				,200100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	+0,001101				
226	DFSPFLXADS0 -	PNLNFLXARSO -	\$35.44	\$32.10	\$60.31	\$53.96	\$722.32	\$634.32	NA	NA	NA	NA
1	DeFuniak Springs	Ponce de Leon	,	102.10	400.01	+00.00	TILLIDE	+001102				
227	DFSPFLXADS0 -	RYHLFLXARS0 -	\$36.91	\$33.16	\$249.01	\$218.64	\$4,072,70	\$3,492.47	NA	NA	NA	NA
	DeFuniak Springs	Reynolds Hill	400101	400.10	4213.01	4210.01	41,072.10	45,152.17	111		1474	Int
228	DFSPFLXADS0 -	SGBHFLXARSO -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3 367 62	\$10,905.58	39 180 15	\$38,493.06	\$32,371,41
	DeFuniak Springs	Seagrove Beach	\$55.67	400.12	<b><i>YI</i></b> <i>11</i> <b>.</b> 35	¥101.07	<i>43,333.</i> 44	43,307.02	<b>V</b> 10, 505.50	\$5,100.45	950,495.00	432, J/1,41
229	DFSPFLXADS0 -	SHLMFLXADS0 -	\$36.44	\$32.60	\$238.56	\$206.26	\$4,746.15	54 022 29	\$12 912 48	\$10 938 84	\$45,164.77	\$38,201.24
	DeFuniak Springs	Shalimar	+00111	402100	<b>4230.30</b>	¥200,20	V1, /10.15	94,022.25	V12, J12.40	Q10, 950.04	<i>415,104.77</i>	950,201.24
230	DFSPFLXADS0 -	SNRSFLXARS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999,44	53 367 62	\$10,905.58	39 180 15	\$38,493.06	\$32,371.41
	DeFuniak Springs	Santa Rosa Beach	<b>\$33.</b> 07	930.12	<b>Q</b> 177,35	4101.01	<i>43, <i>3, 3, 44</i></i>	\$5,507.02	<i><b>410, 303.30</b></i>	\$9,100.45	450,455.00	9J2, 5/1.41
231	DFSPFLXADS0 -	VLPRFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	62 267 62	\$10,905.58	CO 100 /F	\$38,493.06	\$32,371.41
<b>[</b> ]	DeFuniak Springs	Valparaiso	<b>4</b> 55.07	YJU,12	7111.33	4101.07	45,555.44	43,301.02	\$10,903.30	<i>, , , , , , , , , ,</i>	220,493.00	₽34,37±.41
232	DFSPFLXADS0 -	WSTVFLXARS0 -	\$34.35	\$30.85	\$192.45	\$167.81	62 155 20	62 045 66	0 201 04	\$7,993.39	677 576 40	807 CC0 00
<b>1</b> <sup>32</sup>	DeFuniak Springs	Westville	\$54.55	230.05	9192 <b>.</b> 43	9T01.0T	\$3,455.32	\$2,945.66	\$9,381.04	\$1,993.39	\$32,536.49	\$27,668.23
232	ESTSFLXARS0 -	GVLDFLXARSO -	\$41.63	\$36.92	0752 20 1	0201 04	07 054 05	00 000 00	001 001 00	010 000 00	67C 55C 41	0.04 204 40
[	Eustis	Groveland	\$41.03	930,92	\$353.20	\$301.84	\$7,954.95	30,090.00	\$21,091.00	\$18,260.69	\$76,556.41	\$64,384.42
234	ESTSFLXARSO -	HOWYFLXARS0 -	\$34.04	626 60	- 6105 65	61.60 1.4	00.004.00	60.706.01				
2.54	Eustis		\$34.04	\$30.60	\$185.65	\$162.14	\$3,264.98	\$2,786.91	NA	NA	NA	NA
L	Eust18	Howey-in-the-Hills					L		l			

						TICHIQI	PORT PRI		- SPRIN	T & STAL	C <b>F</b>	
	ORIGINATING	TERMINATING	E	S0	D	S1	I	DS3	0	C3	00	:12
			Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
235	ESTSFLXARS0 -	LDLKFLXARS0 -	\$36.21	\$32.41	\$233.60	\$202.12	\$4,607.07		\$12,531.96		•	\$37,066.30
	Eustis	Lady Lake								. ,		
236	ESTSFLXARSO -	LSBGFLXADS1 -	\$31.10	\$27.98	\$120.81	\$104.40	\$2,415.78	\$2,046.76	\$6,573.06	\$5,566.86	\$23,000.14	\$19,449.06
	Eustis	Leesburg										,
2371	ESTSFLXARSO -	MTDRFLXARS0 -	\$31.10	\$27.98	\$120.81	\$104.40	\$2,415.78	\$2,046.76	\$6,573.06	\$5,566.86	\$23,000.14	\$19,449.06
!	Eustis	Mt. Dora								,		,,
238	ESTSFLXARSO -	MTVRFLXARS0 -	\$33.84	\$30.43	\$181.12	\$158.36	\$3,138,10	\$2,681.08	NA	NA	NA	Ni
	Eustis	Montverde						,				
239	ESTSFLXARSO -	TVRSFLXADS0 -	\$31.10	\$27.98	\$120.81	\$104.40	\$2,415.78	\$2,046.76	\$6,573.06	\$5,566,86	\$23,000.14	\$19,449.06
1 1	Eustis	Tavares						,			120,000.21	1420,110100
240	ESTSFLXARSO -	UMTLFLXARS0 -	\$34.39	\$30.89	\$193.32	\$168.54	\$3,479.72	\$2,966.01	\$9,447.79	\$8,049.07	NA	N
	Eustis	Umatilla								1,0,010,01		]
241	EVRGFLXARSO -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4.059.59	\$13,175,32	\$11.073.56	\$46,609.53	\$39,141,21
	Everglades	Naples				-					1 10,000	+00/11101
242	FRPTFLXARS0 -	GLDLFLXARS0 -	\$36.41	\$32.57	\$237.87	\$205.68	\$4,726.63	\$4.006.01	\$12,859.07	\$10,894,29	\$44,973.79	\$38 041 95
1 1	Freeport	Glendale						1,000,01	112,000,00	10,001120	411/5/51/5	\$30,011.33
243	FRPTFLXARS0 -	PNLNFLXARSO -	\$36.40	\$32.56	\$237.69	\$205.53	\$4,721.75	\$4,001.94	NA	NA	NA	NZ
	Freeport	Ponce de Leon			,	,		+ .,				
	FRPTFLXARS0 -	SGBHFLXARS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3.367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371,41
	Freeport	Seagrove Beach			1	,	, , , , , , , , , , , , , , , , , , , ,	40,00,102	++0,000100	457200.15	430,133.00	402,071,41
245	FRPTFLXARS0 -	SNRSFLXARSO -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367 62	\$10,905.58	\$9 180 45	\$38,493.06	\$32,371.41
	Freeport	Santa Rosa Beach	1	,	12.1.000	440110	+3,333.11	\$57507.02	<i>q</i> 10, 505.50	\$5,100.45	\$50,455.00	\$32,371.4L
246	FRPTFLXARS0 -	VLPRFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	53 367 62	\$10,905.58	59 180 45	\$38,493.06	\$32,371.41
	Freeport	Valparaiso			+1	+101101	+0,000.11	\$5,50,.02	410, 503.50	\$9,100.45	930,493.00	<i>452,51</i> 1.41
247	FTMBFLXADS0 -	CPCRFLXBDS1 -	\$34.40	\$30.90	\$193.58	\$168.76	\$3,487.04	\$2,972.12	\$9,467.82	\$8 065 77	\$32,846.83	\$27,927.07
	Fort Myers Beach	North Cape Coral	,	100100	+100.00	+100170	<i>43,101.01</i>	42,5,2,12	\$7,407.02	<i>vo</i> , <i>vo</i> . <i>i</i> , <i>i</i>	952,040.05	921,921.01
	FTMBFLXADS0 -	NFMYFLXADS0 -	\$30.97	\$27.87	\$117.84	\$101.93	\$2,332.81	51 977 56	\$6,346.09	\$5 377 55	\$22,188,50	\$18,772.08
	Fort Myers Beach	North Fort Myers		1-10-1	411/01	+101100	+2,002.01	41,577.50	\$0,540.05	45,577.55	922,100.00	910,112.00
249	FTMBFLXADS0 -	NNPLFLXADS1 -	\$40.35	\$35.85	\$324.87	\$278.22	\$7,161.90	56 037 16	\$19,521.41	\$16 451 10	\$68 708 02	\$57,913.29
	Fort Myers Beach	North Naples			,	<i><b>4</b>210122</i>	+. <b>,</b> 101.50	+0,057.10	++J, JZ1.41	410,401.10	¥00,790.02	457,515.23
	FTMBFLXADS0 -	NPLSFLXCDS0 -	\$40.35	\$35.85	\$324.87	\$278,22	\$7,161.90	56 037 16	\$19 521 /1	\$16 451 10	\$68,798.02	\$57,913.29
	Fort Myers Beach	Naples		+00.00	+521.07	72,0.22	<i>+,,</i> 101.90	<b>40,0</b> 57.10	Y19,921.41	++0,451.10	700,190.02	, J, J, J, J, Z, Z, Z, J
	FTMBFLXADS0 -	PNISFLXADS0 -	\$30.97	\$27,87	\$117.84	\$101.93	\$2,332.81	\$1 977 56	\$6,346.09	\$5 377 55	\$22,188.50	\$18,772.08
	Fort Myers Beach	Pine Island	1,00.57		,,	+101.JJ	+2,002.01	41,511.50	÷0,540.05	43,577.35	Y22,100.30	910,112.00
	FTMBFLXADS0 -	SNISFLXADSO -	\$30.97	\$27.87	\$117,84	\$101.93	\$2,332.81	\$1 077 56	\$6,346.09	65 277 FF	\$22,188.50	\$18,772.08
	Fort Myers Beach	Sanibel-Captiva Isl.		427.07	ATT1.04	9101.95	10.200,2201	41,911.30	20,340.09	40,011.00	₽∠∠,⊥00.50	÷10,112.08

		APPENDIX A - DEI	DEDICATED	LNI	EROFFICE	TRANSPORT	PORT PRICE	CE LIST	- SPRTNT	T & STAFF	25	
	ORIGINATING	TERMINATING		DSO		DS1	1			,		0010
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Shrint	15 C+5ff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop	Recom
ΥC2	Fort Meade	NSN - Bartow*	77.95\$	\$34.89	\$384.71	\$329.95	\$8,353.93	\$7,047.31	\$22,764.54	\$19,198.34	NA NA	NA
254	-	NON -		90 <b>1</b> 0 0								
		Lakeland*	439.11	534.89	\$384.71	\$329.95	\$8,353.93	\$7,047.31	\$22,764.54	\$19,198.34	NA	NA
255		CPCRFLXBDS1 -	\$29.06	\$26.28	\$75.74	\$66 R7	51 154 25	\$007 EE	CC 101 CS	60 000 00 90 000 00	410 CEO 22	
		North Cape Coral				10.00	77.5041+5	00 · Frank	C1.121.CF	22,000.23	55.8C0,UI¢	49, 154.99
967	FTMYFLXADSO -	FTMBFLXADSO -	\$30.97	\$27.87	\$117.84	\$101.93	\$2.332.81	\$1 977 56	56 316 00	¢6 277 66	677 100 ED	
	Fort Myers	Fort Myers Beach						00			NC.001 1224	91.211,021¢
1.97	FTMYFLXADSO -	IMKLFLXARSO -	\$35.01	\$31.24	\$207.03	\$176.29	\$4.829.09	54.059.59	\$13,175,32	\$11 072 56	616 600 53	10 111 010
i L		Immokalee							40.01 × 10+ X		CC.EUG 10 54	12.141.600
852		LBLLFLXADSO -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5,877.04	\$19,136.71	S16.045.73	\$67.927 20	556 021 AR
¢ L	Fort Myers	LaBelle					•				101101	00.100.000
259		LHACFLXADS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4.829.09	\$4.059 59	513 175 35	411 073 EE	616 600 83	C 1 1 1 01
	_	Lehigh Acres							40·0-+-0++	00.001114	440°,009.03	T7.171, 7805
260	FTMYFLXADSO -	NEMYFLXADS0 -	\$30.97	\$27.87	\$117.84	\$101.93	52 337 B1	¢1 077 56	66 315 00	¢E 277 EE		00 011 01V
	_	North Fort Myers					10.100 111					\$10'1/1'01¢
261	_	NNPLFLXADS1 -	\$35.01	\$31.24	\$207.03	\$176.29	54,829,09	\$4 059 59	\$13 175 32	611 673 66	515 600 ED	
	_	North Naples							70°0'T'CTA	00.001776	20.200 010 Pe	439, 141.21
262	_	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	54.829.09	54 059 5G	513 175 32	611 073 EC	CAC CON ES	
		Naples					10.1101.1	10.000 FF	30 · C · T ( C T &		240,009.03	12.141.664
263		PNGRFLXADS1 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7 008 14	45 877 04	210 126 71	61 5 0 A E 1 5	567 007 DO	ļ
	Fort Myers	Punta Gorda						FO	T/ . DCT / CT &	5/ CFO OTA	07.126,104	88.125 OCS
264	_	PNISFLXADSO -	\$30.97	\$27.87	\$117.84	\$101.93	S2 332 81	\$1 077 56	00 912 95	¢6 377 55	677 100 EV	
1 4 4		Pine Island								CC • / / C / C &	NC.001 1224	\$T0'//7
C 6 Z			\$30.97	\$27.87	\$117.84	\$101.93	\$2,332.81	\$1,977.56	\$6,346.09	\$5.377.55	\$22.188.50	\$18 772 AR
		Sanıbel-Captıva Isl.										00.1
997		CPCRFLXBDS1 -	\$38.44	\$34.26	\$282.76	\$243.11	\$5,983.31	\$5.054.15	216.297.05	S13 761 78	457 767 86	618 706 70
l	East Fort Myers	North Cape Coral					•				00.001	07.007 JOEX
267	FTMYFLXBDS0 -	CYLKFLXBRS0 -	\$38.75	\$34.52	\$289.65	\$248.85	\$6.176.08	\$5.214.93	516.824.43	\$14 201 65	\$\$0 153 75	C/0 000 10
		Regional Airport								DD . + D . / + + +	C1 * CCT 1 CCA	07.000 / 2 5 4
268		FTMBFLXADSO -	\$40.35	\$35.85	\$324.87	\$278.22	\$7.161.90	\$6.037.16	\$19.521.41	516 451 10	568 708 N7	657 012 20
		Fort Myers Beach				-		)   · · ) ) / · · ·	+ • • + 3 > 2 / + +	>+ + + >= 1>+ >	30.000 1000	67.070 1100
269		FTMYFLXADSO -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13.175.32	\$11 073 56	546.609 53	520 101 21
		Fort Myers						· · · · · · · · · · ·	1).).+.)++	A	nn	T7.TET (CC)
0/7		FTMYFLXCDS2 -	\$40.35	\$35.85	\$324.87	\$278.22	\$7,161.90	\$6,037.16	\$19.521.41	\$16.451.10	568.798.02	557 913 29
	East Fort Myers	South Fort Myers										

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		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STA	FF	<u> </u>
	ORIGINATING	TERMINATING	L	S0	D	s1	I	DS3	0	C3	00	12
			Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
271	FTMYFLXBDS0 -	LHACFLXADS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09				\$46,609.53	\$39,141.21
	East Fort Myers	Lehigh Acres	1	1				11,005,05	+20/1/0102	+11,073100	<b>410,005.00</b>	<i>433,141.21</i>
272	FTMYFLXBDS0 -	NFMYFLXADS0 -	\$40.35	\$35.85	\$324.87	\$278.22	\$7,161.90	\$6.037.16	\$19.521.41	\$16,451,10	\$68,798.02	\$57,913.29
	East Fort Myers	North Fort Myers								, = 0, 10 = 1 = 0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
273	FTMYFLXBDS0 -	PNISFLXADSO -	\$40.35	\$35.85	\$324.87	\$278.22	\$7,161.90	\$6,037,16	\$19,521,41	\$16,451,10	\$68,798.02	\$57,913.29
	East Fort Myers	Pine Island		ļ							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1 101/01/01
274	FTMYFLXBDS0 -	SNISFLXADSO -	\$40.35	\$35.85	\$324.87	\$278.22	\$7,161.90	\$6,037.16	\$19,521,41	\$16,451,10	\$68,798.02	\$57,913.29
	East Fort Myers	Sanibel-Captiva Isl.						1 ,			1,000,00000	1017520125
275	FTWBFLXADS0 -	FRPTFLXARSO -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180,45	\$38,493.06	\$32,371.41
	Fort Walton Beach	Freeport						. ,			,	100,01111
276	FTWBFLXADSO -	NSN -	\$13.96	\$12.66	\$25.14	\$22.80	\$220.85	\$200.13	\$586.22	\$531.19	\$1,843.86	\$1,670.46
	Fort Walton Beach	Holley-Navarre*								,		1-70.0110
277	FTWBFLXADSO -	NSN -	\$25.15	\$22.33	\$272.34	\$236.26	\$5,208.58	\$4,423,91	\$14,159.58	\$12,021,26	\$49,371.95	\$41,842.90
	Fort Walton Beach	Niceville*								,		
278	FTWBFLXADS0 -	SGBHFLXARS0 -	\$36.44	\$32.60	\$238.56	\$206.26	\$4,746.15	\$4,022.29	\$12,912.48	\$10,938,84	\$45,164.77	\$38.201.24
	Fort Walton Beach	Seagrove Beach										
279	FTWBFLXADS0 -	SHLMFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
	Fort Walton Beach	Shalımar									,	
280	FTWBFLXADS0 -	SNRSFLXARSO -	\$36.44	\$32.60	\$238.56	\$206.26	\$4,746.15	\$4,022.29	\$12,912.48	\$10,938.84	\$45,164.77	\$38,201.24
	Fort Walton Beach	Santa Rosa Beach						-				
281	FTWBFLXADS0 -	VLPRFLXADS0 -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44	\$3,367.62	\$10,905.58	\$9,180.45	\$38,493.06	\$32,371.41
	Fort Walton Beach	Valparaiso										
282	GDRGFLXADS0 -	GNWDFLXARSO -	\$39.95	\$36.09	\$132.91	\$118.17	\$1,788.69	\$1,555.61	\$4,821.54	\$4,190.48	NA	NA
	Grand Ridge	Greenwood										
283	GDRGFLXADS0 -	MALNFLXARS0 -	\$39.95	\$36.09	\$132.91	\$118.17	\$1,788.69	\$1,555.61	\$4,821.54	\$4,190.48	NA	NA
	Grand Ridge	Malone							· ·			
284	GDRGFLXADS0 -	MRNNFLXADSO -	\$35.97	\$32.55	\$68.94	\$61.15	\$963.89	\$835.81	\$2,601.03	\$2,253.93	NÂ	NA
	Grand Ridge	Marianna						1		, '		
285	GDRGFLXADS0 -	NSN -	\$21.69	\$19.59	\$94.08	\$83.96	\$1,184.74	\$1,035.94	\$3,187.24	\$2,785.12	NĀ	NA
	Grand Ridge	Graceville*										
286	GDRGFLXADS0 -	SNDSFLXARSO -	\$35.97	\$32.55	\$68.94	\$61.15	\$963,89	\$835.81	\$2,601.03	\$2,253.93	NĀ	NA
	Grand Ridge	Sneads			ĺ							
287	GLDLFLXARSO -	NSN -	\$25.25	\$22.41	\$274.43	\$238.00	\$5,267.14	\$4,472.76	NA	NA	NA	NĂ
	Glendale	Paxton*										
	GLDLFLXARSO -	PNLNFLXARSO -	\$31.10	\$28.15	\$120.79	\$108.06	\$1,449.51	\$1,272.71	NA	NA	NA	NA
	Glendale	Ponce de Leon							1			

		APPENDIX A - DI	EDICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STAL	FF	
	ORIGINATING	TERMINATING	I	<b>S</b> 0	D	s1	I I	083	0	C3	00	212
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
289	GLDLFLXARSO -	SGBHFLXARS0 -	\$36.41	\$32.57	\$237.87	\$205.68	\$4,726.63	\$4,006.01	\$12,859.07	\$10,894.29	\$44,973.79	\$38,041.95
-	Glendale	Seagrove Beach	1									
290	GLDLFLXARS0 -	SNRSFLXARS0 -	\$36.41	\$32.57	\$237.87	\$205.68	\$4,726.63	\$4,006.01	\$12,859.07	\$10,894.29	\$44,973.79	\$38,041.95
	Glendale	Santa Rosa Beach						1				
291	GLDLFLXARS0 -	VLPRFLXADSO -	\$36.41	\$32.57	\$237.87	\$205.68	\$4,726.63	\$4,006.01	\$12,859.07	\$10,894.29	\$44,973.79	\$38,041.95
	Glendale	Valparaiso									-	
292	GLGCFLXADS0 -	MOISFLXADSO -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Golden Gate	Marco Island										
293	GLGCFLXADS0 -	NNPLFLXADS1 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Golden Gate	North Naples										
294	GLGCFLXADS0 -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Golden Gate	Naples										
295	GLGCFLXADS0 -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Golden Gate	Naples Moorings										,
296	GLGCFLXADS0 -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059,59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Golden Gate	Naples Southeast										,
297	GLRDFLXADS0 -	KSSMFLXBDS1 -	\$38.72	\$34.67	\$289.02	\$252.01	\$5,192.73	\$4,426.63	\$14,098.26	\$12.012.36	\$48,900.23	\$41,581.98
	Goldenrod	Reedy Creek				-			, ,	. ,		
298	GLRDFLXÄDS0 -	LKBRFLXADS1 -	\$32.51	\$29.32	\$151.82	\$133.94	\$2,318.20	\$1,997.25	\$6,270.17	\$5,398.73	\$21,412.15	\$18,389.62
	Goldenrod	Lake Brantley						,				
299	GLRDFLXADS0 -	MNTIFLXADS0 -	\$46.93	\$41.84	\$470.14	\$410.37	\$8,330.83	\$7,107.71	NA	NA	NA	NA
	Goldenrod	Montverde					,	,		]		
300	GLRDFLXADS0 -	MTLDFLXADS1 -	\$32.51	\$29.32	\$151.82	\$133.94	\$2,318.20	\$1,997.25	\$6,270,17	\$5,398,73	\$21,412.15	\$18,389.62
	Goldenrod	Maitland			,		1 ,	, -,				
301	GLRDFLXADS0 -	NSN -	\$24.46	\$21.75	\$256.99	\$223.46	\$4,779.11	\$4.065.71	\$12,984.66	\$11.041.30	NA	NA
	Goldenrod	Celebration*			• • • • • • •							
302	GLRÖFLXADSÓ -	NSN -	\$18.08	\$16.27	\$116.31	\$102.49	\$1,806.98	\$1,554.92	\$4,889,54	\$4,204.95	\$16,727.53	\$14,349.73
	Goldenrod	East Orange*			,	,	,	, 1, 00 1102		1 - 7 - 0 - 1 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0	+10, 10, 100	1
303	GLRDFLXADSÓ -	NSN -	\$18.08	\$16.27	\$116.31	\$102.49	\$1,806.98	\$1,554.92	\$4,889.54	\$4,204.95	\$16,727.53	\$14,349.73
	Goldenrod	Geneva*						,	,	]	,	
304	GLRDFLXADSO -	NSN -	\$23.69	\$21.11	\$240.08	\$209.36	\$4,305.72	\$3,670.88	\$11,689.58	\$9,961,12	\$40,539.32	\$34,475.77
	Goldenrod	Lake Buena Vista*			,210,00	,200.00		, , , , , , , , , , , , , , , , , , , ,	, 11, 005.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,10,000,00	
305	GLRDFLXADS0 -	NSN -	\$18.08	\$16.27	\$116.31	\$102.49	\$1,806,98	\$1,554.92	\$4,889.54	\$4,204,95	\$16,727.53	\$14,349,73
	Goldenrod	Orlando*			,	,100.10	, 1, 000, 50	1 + 1,001.02	1,000,01	1,201.00	1 20, 12, 100	] + 1, 5 1 5 1 / 5
306	GLRDFLXADS0 -	NSN -	\$18.08	\$16.27	\$116.31	\$102.49	\$1,806.98	\$1.554 92	\$4,889.54	\$4,204 95	\$16,727.53	\$14,349.73
	Goldenrod	Oviedo*	1	,,	7+10.01	7102.13	, , , , , , , , , , , , , , , , , , ,	+1,001.92	, , , , , , , , , , , , , , , , , , ,	¥ 1,201.95	<u><u> </u></u>	······································

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STAL	FF	
	ORIGINATING	TERMINATING	L	S0	D	S1	I	DS3	0	C3	00	:12
			Sprint Prop.	Staff Recom.								
307	GLRDFLXADS0 -	NSN -	\$20.41	\$18.38	\$167.72	\$149.04	\$2,280.40	\$1,981.65	NA		*	
	Goldenrod	Sanford*										
308	GLRDFLXADS0 - Goldenrod	WNDRFLXARSO - Windermere	\$35.54	\$31.85	\$218.69	\$189.69	\$4,189.80	\$3,558.26	\$11,390.42	\$9,669.34	\$39,721.96	\$33,661.49
309	GLRDFLXADSO - Goldenrod	WNGRFLXADSO - Winter Garden	\$35.24	\$31.60	\$212.15	\$184.24	\$4,006.79	\$3,405.62	\$10,889.74	\$9,251.75	\$37,931.56	\$32,168.15
310	GLRDFLXADS0 - Goldenrod	WNPKFLXADS1 - Winter Park	\$28.86	\$26.11	\$71.20	\$63.04	\$1,027.33	\$888.72	\$2,774.60	\$2,398.69	\$9,416.99	\$8,119.61
311	GNVLFLXARSO - Greenville	LEE FLXARSO - Lee	\$53.65	\$47.74	\$353.10	\$305.43	\$6,986.24	\$5,922.52	NA	NA	NA	NA
312	GNVLFLXARSÖ - Greenville	MDSNFLXADS0 - Madison	\$50.15	\$44.60	\$296.89	\$254.89	\$6,378.62	\$5,383.85	\$17,378.51	\$14,663.79	NA	NA
313	GNVLFLXARSO - Greenville	MNTIFLXADSO - Monticello	\$50.15	\$44.60	\$296.89	\$254.89	\$6,378.62	\$5,383.85	\$17,378.51	\$14,663.79	NA	NA
314	GNVLFLXARSO - Greenville	TLHSFLXADSÖ - Calhoun	\$50.15	\$44.60	\$296.89	\$254.89	\$6,378.62	\$5,383.85	\$17,378.51	\$14,663.79	NA	ŃA
315	GNWDFLXARSO - Greenwood	MALNFLXARSO - Malone	\$35.66	\$32.29	\$63.97	\$57.01	\$824.80	\$719.80	\$2,220.51	\$1,936.56	NA	NA
316	GNWDFLXARS0 - Greenwood	MRNNFLXADSO - Marianna	\$35.66	\$32.29	\$63.97	\$57.01	\$824.80	\$719.80	\$2,220.51	\$1,936.56	NA	NA
317	GNWDFLXARS0 - Greenwood	NSN - Graceville*	\$21.38	\$19.34	\$89.11	\$79.81	\$1,045.65	\$919.93	\$2,806.73	\$2,467.75	NA	NĀ
318	GNWDFLXARS0 - Greenwood	SNDSFLXARSO - Sneads	\$39.95	\$36.09	\$132.91	\$118.17	\$1,788.69	\$1,555.61	\$4,821.54	\$4,190.48	NA	NA
319	GVLDFLXARSO - Groveland	BSHNFLXADSO - Bushnell	\$36.16	\$32.20	\$232.39	\$197.44	\$5,539.17	\$4,651.84	\$15,117.94	\$12,693.83	\$53,556.27	\$44,935.36
320	GVLDFLXARSO - Groveland	HOWYFLXARSO - Howey-in-the-Hills	\$39.09	\$34.81	\$297.24	\$255.18	\$6,388.38	\$5,391.99	NA	NA	NA	NA
321	GVLDFLXARSO - Groveland	LDLKFLXARSO - Lady Lake	\$46.95	\$41.53	\$470.70	\$403.48	\$10,278.01	\$8,668.03	\$28,010.39	\$23,615.96	\$98,649.42	\$83,076.86
322	GVLDFLXARSO - Groveland	LSBGFLXADS1 - Leesburg	\$36.16	\$32.20	\$232.39	\$197.44	\$5,539.17	\$4,651.84	\$15,117.94	\$12,693.83	\$53,556.27	\$44,935.36
323	GVLDFLXARSO - Groveland	MTDRFLXARSO - Mt. Dora	\$41.63	\$36.92	\$353.20	\$301.84	\$7,954.95	\$6,698.60	\$21,691.00	\$18,260.69	\$76,556.41	\$64,384.42
324	GVLDFLXARSO - Groveland	MTVRFLXARSO - Montverde	\$44.36	\$39.37	\$413.51	\$355.80	\$8,677.27	\$7,332.92	NA	NA	NA	NA

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STAI	FF	
	ORIGINATING	TERMINATING	L	s0	D	S1		DS3	0	СЗ	00	12
			Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
325	GVLDFLXARSO -	NSN -	\$35.25	\$30.91	\$495.32	\$425.84	\$10,484.21	\$8,855.95			\$100,350.05	
	Groveland	Orlando*								,		
326	GVLDFLXARSO -	TVRSFLXADS0 -	\$41.63	\$36.92	\$353.20	\$301.84	\$7,954.95	\$6,698.60	\$21,691.00	\$18,260.69	\$76,556.41	\$64,384.42
	Groveland	Tavares								, , , , , , , , , , , , , , , , , , , ,	,	,
327	GVLDFLXARSO -	UMTLFLXARS0 -	\$44.91	\$39.83	\$425.71	\$365.97	\$9,018.89	\$7,617.85	\$24,565.74	\$20,742.90	NA	NA
	Groveland	Umatilla										
328	GVLDFLXARSO -	WNDRFLXARS0 -	\$48.52	\$42.84	\$505.39	\$432.41	\$11,249.19	\$9,478.04	\$30,667.31	\$25,832.00	\$108,150.47	\$91,001.51
	Groveland	Windermere								,		
329	GVLDFLXARS0 -	WNGRFLXADS0 -	\$41.84	\$37.10	\$357.91	\$305.76	\$8,086.72	\$6,808.51	\$22,051.49	\$18,561.36	\$77,845.50	\$65.459.63
	Groveland	Winter Garden						. ,				
330	HMSPFLXARS0 -	BVHLFLXADS0 -	\$29.90	\$26.98	\$94.13	\$82.16	\$1,669.09	\$1,423,98	\$4,530,30	\$3,863,06	\$15,695.32	\$13,356.25
	Homosassa Springs	Beverly Hills										
331	HMSPFLXARS0 -	INVRFLXADS0 -	\$29.90	\$26.98	\$94.13	\$82.16	\$1,669.09	\$1,423.98	\$4,530.30	\$3,863.06	\$15,695.32	\$13,356.25
	Homosassa Springs	Inverness									,,	1=0,0001m0
332	HOWYFLXARSO -	LDLKFLXARS0 -	\$50.54	\$45.15	\$303.14	\$263.78	\$5,588.04	\$4,756.34	NA	NA	NA	NA
	Howey-In-The-Hills	Lady Lake										
333	HOWYFLXARSO -	LSBGFLXADS1 -	\$35.72	\$32.34	\$64.84	\$57.74	\$849.20	\$740.15	NA	NA	NA	NA
	Howey-In-The-Hills	Leesburg	-					1.10110				
334	HOWYFLXARSO -	MTDRFLXARS0 -	\$43.23	\$38.83	\$185.65	\$162.14	\$3,264.98	\$2,786,91	NA		NA	NA
	Howey-In-The-Hills	Mt. Dora				, 202020	40,001.00	42,000001				1411
335	HOWYFLXARSO -	MTVRFLXARS0 -	\$46.98	\$42.18	\$245.96	\$216.10	\$3,987.30	\$3,421.23	NA	NA	NA	NA
	Howey-In-The-Hills	Montverde			,	1010110	+0,00,000	+ 0 / 121120				117
336	HOWYFLXARS0 -	TVRSFLXADS0 -	\$43.23	\$38,83	\$185.65	\$162.14	\$3,264.98	\$2,786.91	NA	NA		NA
	Howey-In-The-Hills	Tavares		,	,100.00	+102111	+3,201.30	<i>42,100.01</i>	110	NA NA	NO.	
337	HOWYFLXARS0 -	UMTLFLXARS0 -	\$47.74	\$42.82	\$258.16	\$226.28	\$4,328.92	\$3,706.16	NA	NA	NA	NA
	Howey-In-The-Hills	Umatılla		111102	4200110	\$220.20	<i>41,520.52</i>	45,700.10		NA NA	NA	NA NA
338		WLWDFLXARS0 -	\$42.73	\$38.41	\$177.63	\$155.45	\$3,040.49	\$2,599.67	NA	NA	ŇA	NA
		Wildwood		,	421100	+100.10	\$57010.15	<i>42,333.01</i>		NA	INFA	NPA
339	IMKLFLXARS0 -	LBLLFLXADSO -	\$47.91	\$42.16	\$491.90	\$417 48	\$11,837.23	59 936 64	\$32 312 02	\$27 110 20	\$114,536.73	596 063 09
	Immokalee	LaBelle		,	,		1 1,007.20		+ 52, 512,02	<i>441,110.23</i>	YII4, JJU. /J	950,005.09
340	IMKLFLXARS0 -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4 059 59	\$13 175 32	\$11 073 56	\$46,609.53	\$39 141 21
	Immokalee	Naples	100.01	,01.21	,20,.00	7410122	+ 1,025.05	41,000.09	++J, 1, J, J2	Y++,0,0,0,00	Y=0,002.00	499,141.21
341	INVRFLXADS0 -	NSN -	\$24.58	\$21.68	\$259.63	\$221.98	\$5,818.59	\$4,900.82	NA	ŇĂ	NA	NA
		Brooksville*	+21.50	+21,00	7237.03	Y221.90	YJ,010.39	V4, 200.02	NA NA	NA	NA	NA
342	INVRFLXADS0 -	NSN -	\$18.30	\$16.45	\$121.10	\$106 70	\$1 941 10	\$1 666 06	\$5 256 71	\$4 511 10	\$18,040.49	615 444 QA
		Dunnellon*	1 410.00	AT0'42	YIZI.IU	AT00.42	, y1, 941, 19	91,000.80	23,230./1	54,211.12	⊋⊥8,040.49	\$15,444.84
		Bannetton					I	I	1	L		

		APPENDIX A - DI	EDICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STAN	?F	
	ORIGINATING	TERMINATING		S0	D	S1	E E	DS3	0	СЗ	00	:12
			Sprint		Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
343	INVRFLXADS0 -	NSN -	\$18.30	\$16.45	\$121.10	\$106.49	\$1,941.19	\$1,666.86	\$5,256.71	\$4,511.19	\$18,040.49	\$15,444.84
	Inverness	Yankeetown*										
344	KGLKFLXARS0 -	LWTYFLXARS0 -	\$35.76	\$32.37	\$65.54	\$58.32	\$868.72	\$756.43	NA	NÄ	NA	NA
	Kingsley Lake	Lawtey										
345	KGLKFLXARS0 -	NSN -	\$21.50	\$19.44	\$91.03	\$81.41	\$1,099.33	\$964.71	NA	NA	NA	NA
	Kingsley Lake	Jacksonville*								ľ		
346	KGLKFLXARS0 -	NSN -	\$21.50	\$19.44	\$91.03	\$81.41	\$1,099.33	\$964.71	NA	NA	NA	NA
	Kingsley Lake	Raiford*										
347	KGLKFLXARS0 -	STRKFLXADS0 -	\$35.76	\$32.37	\$65.54	\$58.32	\$868.72	\$756.43	NA	NA	NA	NA
	Kingsley Lake	Starke										
348	KNVLFLXARSO -	KSSMFLXADS0 -	\$36.94	\$32.85	\$249.66	\$211.83	\$6,022.32	\$5,054.82	\$16,439.73	\$13,796.28	\$58,282.92	\$48.877.77
	Kenansville	Kıssimmee								,		,
349	KNVLFLXARSO -	KSSMFLXBDS1 -	\$43.32	\$38.34	\$390.60	\$333.02	\$9,001.78	\$7,571.71	\$24.554.87	\$20,649.34	\$86,797.49	\$72.926.31
	Kenansville	West Kissimmee							,		,	,
350	KNVLFLXARSO -	NSN -	\$32.55	\$28.50	\$435.71	\$372.47	\$9,781.42	\$8,237.91	\$26,669.82	\$22,455.59	\$94,108.03	\$79,156.44
	Kenansville	Orlando*									,	
351	KNVLFLXARSO -	STCDFLXARS0 -	\$36.94	\$32.85	\$249.66	\$211.83	\$6,022.32	\$5,054.82	\$16,439.73	\$13,796.28	\$58,282.92	\$48,877.77
	Kenansville	St. Cloud							l .,			
352	KSSMFLXADS0 -	KSSMFLXBDS1 -	\$35.50	\$31.81	\$217.82	\$188.96	\$4,165.40	\$3,537.91	\$11,323,66	\$9,613.66	\$39,483.24	\$33,462.38
	Kissımmee	Reedy Creek									,	,
353	KSSMFLXADSO -	KSSMFLXBDS1 -	\$32.02	\$28.74	\$140.95	\$121.19	\$2,979.45	\$2,516.90	\$8,115.15	\$6,853.05	\$28,514.57	\$24,048.54
	Kissimmee	West Kissimmee										,
354	KSSMFLXADS0 -	NSN -	\$21.23	\$18.89	\$185.79	\$160.42	\$3,751.78	\$3,176.99	\$10,210.07	\$8,642,60	NA	NA
]	Kissimmee	Celebration*						, . ,				
355	KSSMFLXADS0 -	NSN -	\$18.65	\$16.83	\$45.19	\$39.52	\$782.08	\$668.24	\$2,121.62	\$1,811,82	NA	NA
	Kissimmee	Haines City*						,	- ,			
356	KSSMFLXADS0 -	NSN -	\$21.24	\$18.90	\$186.05	\$160.64	\$3,759.10	\$3,183.10	\$10,230.09	\$8,659.31	\$35,825.11	\$30,278.66
	Kissimmee	Orlando*									,,	
357	KSSMFLXADSO -	STCDFLXARS0 -	\$36.94	\$32.85	\$249.66	\$211.83	\$6,022.32	\$5.054.82	\$16,439,73	\$13,796,28	\$58,282.92	\$48,877.77
	Kissimmee	St. Cloud					,		-,			
358	KSSMFLXADS0 -	WNPKFLXADS1 -	\$32,02	\$28.74	\$140.95	\$121.19	\$2,979.45	\$2,516.90	\$8,115,15	\$6,853.05	\$28,514.57	\$24,048.54
	Kissımmee	Winter Park			,			,		,	,_0,01.00	,,
359	KSSMFLXBDS1 -	KSSMFLXBDS1 -	\$29.11	\$26.32	\$76.87	\$67.77	\$1,185.94	\$1,021.01	\$3,208,52	\$2,760,61	\$10,968.67	\$9,413.83
	Reedy Creek	West Kissimmee			,			,			,_0,000.0,	, , , , , , , , , , , , , , , , , , , ,
360	KSSMFLXBDS1 -	NSN -	\$24,71	\$21.96	\$262,66	\$228.19	\$4,937,72	\$4,198,00	\$13,418.58	\$11,403,21	NA	NA
	Reedy Creek	Celebration*			,	,		, , , , , , , , , , , , , , , , , , ,	= 0, = = 0.00	1 - + , 100 , 21		

		APPENDIX A - DEI	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STAL	F	
	ORIGINATING	TERMINATING		S0	D	S1	I	0\$3	0	СЗ	00	12
			Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
361	KSSMFLXBDS1 - Reedy Creek	NSN -	\$24.72	\$21.97	\$262.92	\$228.41	\$4,945.04	\$4,204.11	•		\$46,793.78	\$39,692.50
262	KSSMFLXBDS1 -	East Orange* NSN -	410.01									
502	Reedy Creek	Haines City*	\$18.34	\$16.49	\$122.06	\$107.29	\$1,968.03	\$1,689.25	\$5,330.14	\$4,572.43	NA	NA
363	KSSMFLXBDS1 -	NSN -	\$17.56	\$15.83	\$104.80	\$92.90	\$1,484.88	\$1,286.27	64 000 25	62 460 00	610 576 40	A11 701 45
	Reedy Creek	Lake Buena Vista*	Ŷ1/.J0	Q10.00	\$104,00	Q92.90	91,404.00	91,200.27	\$4,008.35	\$3,469.98	\$13,576.43	\$11,721.45
364	KSSMFLXBDS1 -	NSN - Orlando*	\$24.72	\$21.97	\$262.92	\$228.41	\$4,945.04	64 004 11	010 400 61	411 410 00	0.1.6 700 70	400 600 60
<b>J</b>	Reedy Creek	NSN OFFANGO	924.72	\$21.97	₹202.92	\$228.41	\$4,945.04	\$4,204.11	\$13,438.61	\$11,419.92	\$46,793.78	\$39,692.50
365	KSSMFLXBDS1 -	WNDRFLXARSO -	\$35.79	\$32.06	\$224.36	\$194.41	\$4,348.41	\$3,690.55	\$11,824.34	\$10,031.26	\$41,273.64	\$34,955.71
	Reedy Creek	Windermere							,		,	,
366	KSSMFLXBDS1 -	WNGRFLXADS0 -	\$35.50	\$31.81	\$217.82	\$188.96	\$4,165.40	\$3,537.91	\$11,323.66	\$9,613.66	\$39,483.24	\$33,462.38
	Reedy Creek	Winter Garden										
367	KSSMFLXBDS1 -	WNPKFLXADS1 -	\$35.50	\$31.81	\$217.82	\$188.96	\$4,165.40	\$3,537.91	\$11,323.66	\$9,613.66	\$39,483.24	\$33,462.38
	Reedy Creek	Winter Park										
368	KSSMFLXBDS1 -	KNVLFLXARSO -	\$43.32	\$38.34	\$390.60	\$333.02	\$9,001.78	\$7,571.71	\$24,554.87	\$20,649.34	\$86,797.49	\$72,926.31
0.00	West Kissimmee	Kenansville										
	KSSMFLXBDS1 - West Kissimmee	NSN -	\$21.23	\$18.89	\$185.79	\$160.42	\$3,751.78	\$3,176.99	\$10,210.07	\$8,642.60	NA	NA
	KSSMFLXBDS1 -	Celebration*	+ 0 1 - 0 F	+10.01								
1	West Kissimmee	NSN - Haines City*	\$21.25	\$18.91	\$186.14	\$160.71	\$3,761.54	\$3,185.13	\$10,236.77	\$8,664.87	NA	NA
	KSSMFLXBDS1 -	NSN -	\$14.08	610 77	<u> </u>	405 10						
	West Kissimmee	Lake Buena Vista*	\$14.08	\$12.77	\$27.93	\$25.13	\$298.93	\$265.26	\$799.84	\$709.37	\$2,607.76	\$2,307.62
	KSSMFLXBDS1 -	NSN -	\$21.24	\$18,90	\$186.05	61.60 - 64	AD 750 10	40.100.10	410 000 00	40 (50 01	400 000 110	***
	West Kissimmee	Orlando*	Ş∠1,∠4	\$10,90	\$186.05	\$160.64	\$3,759.10	\$3,183.10	\$10,230.09	\$8,659.31	\$35,825.11	\$30,278.66
	KSSMFLXDRS0 -	KSSMFLXADS0 -	\$33.28	\$29.88	\$168.88	\$146.32	<u> </u>	20 700 12	00 014 00	A3 5 60 40	001 100 00	A0 ( DE C 1 (
		Kissimmee	\$33.20	\$29.00	\$100.00	\$146.32	\$3,278.39	\$2,782.16	\$8,914.98	\$7,562.42	\$31,122.33	\$26,356.16
	LDLKFLXARSO -	LSBGFLXADS1 -	\$36.43	\$32.59	\$238.30	\$206.04	\$4,738.83	\$4 016 19	\$12 802 45	\$10 022 13	\$45,093.15	\$38,141.50
	Lady Lake (753)	Leesburg	+00.15	<i>402.00</i>	<i>q</i> 230.30	Q200.04	<i>4</i> <b>1</b> ,730.03	94,010.19	912,092.45	910,922.15	94J,093.13	\$30,141.JU
375	LDLKFLXARS0 -	MTDRFLXARS0 -	\$36.21	\$32.41	\$233.60	\$202.12	\$4,607.07	\$3,906.28	\$12,531.96	\$10,621.46	\$43,804,07	\$37,066.30
	Lady Lake (753)	Mt. Dora									,	,,
	LDLKFLXARSO -	MTVRFLXARSO -	\$38.94	\$34.85	\$293.90	\$256.08	\$5,329.38	\$4,540.60	NA	NA	NA	NA
	Lady Lake (753)	Montverde	]									
377	LDLKFLXARS0 -	OKLWFLXADSO -	\$40.27	\$35.96	\$323.28	\$280.57	\$6,151.71	\$5,226.47	\$16,721.80	\$14,200.56	\$58,281.92	\$49,407.07
	Lady Lake (753)	Ocklawaha										,
378	LDLKFLXARSO -	SVSSFLXARS0 -	\$40.27	\$35.96	\$323.28	\$280.57	\$6,151.71	\$5,226.47	\$16,721.80	\$14,200.56	\$58,281.92	\$49,407.07
	Lady Lake (753)	Silver Springs Shores							1			

	API	PENDIX A - DED	ICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STAR	FF	· · · · · · · · · · · · · · · · · · ·
	ORIGINATING	TERMINATING	D	S0	D.	S1	E E	DS3	0	SPRINT & STAH           OC3           Sprint         Staff           Prop.         Recom.           \$12,531.96         \$10,621.46           \$15,406.69         \$13,103.68           \$12,892.45         \$10,922.13           \$12,892.45         \$10,922.13           \$12,531.96         \$10,621.46           NA         NA           \$28,010.39         \$23,615.96           \$16,721.80         \$14,200.56           \$32,967.94         \$27,835.37           \$16,721.80         \$14,200.56           \$12,531.96         \$10,621.46		:12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recon.
379	LDLKFLXARSO - TVF	RSFLXADSO -	\$36.21	\$32.41	\$233.60	\$202.12	\$4,607.07	\$3,906.28	\$12,531.96	\$10,621.46	\$43,804.07	\$37,066.30
		Jares										
380	LDLKFLXARSO - UMI	FLFLXARSO -	\$39.50	\$35.31	\$306.11	\$266.25	\$5,671.00	\$4,825.53	\$15,406.69	\$13,103.68	NA	NA
		atilla										
381	LDLKFLXARSO - WLW	VDFLXARS0 -	\$36.43	\$32.59	\$238.30	\$206.04	\$4,738.83	\$4,016.19	\$12,892.45	\$10,922.13	\$45,093.15	\$38,141.50
	Lady Lake (753) Wil	.dwood					4					
382	LDLKFLXARSO - LSE	BGFLXADS1 -	\$36.43	\$32.59	\$238.30	\$206.04	\$4,738.83	\$4,016.19	\$12,892.45	\$10,922.13	\$45,093.15	\$38,141.50
l I	Lady Lake (821) Lee	esburg									i i	
383	LDLKFLXARSO - MTE	DRFLXARSO -	\$36.21	\$32.41	\$233.60	\$202.12	\$4,607.07	\$3,906.28	\$12,531.96	\$10,621.46	\$43,804.07	\$37,066.30
	Lady Lake (821) Mt.	Dora						] ·	-			
384	LDLKFLXARSO - MTV	/RFLXARS0 -	\$38.94	\$34.85	\$293.90	\$256.08	\$5,329.38	\$4,540.60	NA	NA	NA	NA
	Lady Lake (821) Mor	ntverde										
385	LDLKFLXARSO - OCA	ALFLXADS0 -	\$46.95	\$41.53	\$470.70	\$403.48	\$10,278.01	\$8,668.03	\$28,010.39	\$23,615.96	\$98,649.42	\$83,076.86
	Lady Lake (821) Oca	ala							1			
386	LDLKFLXARSO - OKL	LWFLXADS0 -	\$40.27	\$35.96	\$323,28	\$280.57	\$6,151.71	\$5.226.47	\$16.721.80	\$14,200.56	\$58,281.92	\$49,407.07
1	Lady Lake (821) Ock	lawaha										
387		PRFLXARSO -	\$51.47	\$45.46	\$570.41	\$490.29	\$12,103.27	\$10.222.27	\$32,967,94	\$27,835.37	\$115,872.55	\$97,707.42
	Lady Lake (821) Sal	t Springs						,				
388		SFLXARSO -	\$40.27	\$35.96	\$323.28	\$280.57	\$6,151,71	\$5.226.47	\$16,721,80	\$14,200.56	\$58,281,92	\$49.407.07
	Lady Lake (821) Sil	ver Springs Shores	,									
389		RSFLXADSO -	\$36.21	\$32.41	\$233.60	\$202.12	\$4,607.07	\$3,906,28	\$12,531,96	\$10,621.46	\$43,804.07	\$37,066.30
	Lady Lake (821) Tay	vares								,		,
390		LFLXARSO -	\$39.50	\$35.31	\$306.11	\$266.25	\$5,671,00	\$4.825.53	\$15,406.69	\$13,103,68	NA	NA
	Lady Lake (821) Uma	atilla			,		,	,		, ,		
391		NFLXADSO -	\$35.18	\$31.89	\$56.21	\$50,54	\$607.63	\$538.66	<u></u> NA	NA	NA	NA
1	Lee Mad	lison									1	
392	LHACFLXADSO - CPC	RFLXADSO -	\$38.44	\$34.26	\$282.76	\$243.11	\$5,983.31	\$5.054.15	\$16.297.05	\$13,761,78	\$57,267.86	\$48,296,20
	Lehigh Acres Car	pe Coral		,	1		, . ,	,	1	1-0,		,
393		CRFLXBDS1 -	\$38.44	\$34.26	\$282.76	\$243.11	\$5,983,31	\$5,054 15	\$16.297.05	\$13,761,78	\$57,267.86	\$48,296.20
		th Cape Coral			,			',	[ , , , ]	,	,	,
394		MYFLXADSO -	\$40.35	\$35.85	\$324.87	\$278.22	\$7,161.90	\$6.037 16	\$19.521.41	\$16,451,10	\$68,798.02	\$57,913.29
```		th Fort Myers		,00.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-2.0.22	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- 0,00,10	1 20,021,11	1 - 0, 10 - 10	,,	
395		SMFLXBDS1 -	\$39.15	\$35.02	\$298.44	\$259.86	\$5,456,27	\$4,646,43	\$14.819.23	\$12,613,70	\$51,478.40	\$43,732,39
		edy Creek	402113	+30.02	7220.11	+200.00		1,010.15	1 1,010.23	712,013.70	1, 1, 1, 0, 10	+,
396		IFLXADSO -	\$47.35	\$42.20	\$479.55	\$418 22	\$8,594.36	\$7,327.52	NÄ	NA	NA	NĂ
Ĩ		ntverde	÷1/,55	+ 1 L · L ·	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4110.22		¥1,521.52				

		APPENDIX A - DE	EDICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST				
	ORIGINATING	TERMINATING	E	S0	D	S1	L	083	0	C3	00	:12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
397	LKBRFLXADS1 -	MTLDFLXADS1 -	\$29.28	\$26.46	\$80.62	\$70.89	\$1,290.87	\$1,108.53	\$3,495.57	\$3,000.03	\$11,995.16	\$10,270.01
	Lake Brantley	Maitland										
398	LKBRFLXADS1 -	NSN -	\$24.88	\$22.10	\$266.41	\$231.31	\$5,042.65	\$4,285.52	\$13,705.64	\$11,642.64	NA	NZ
	Lake Brantley	Celebration*										
399	LKBRFLXADS1 -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
·	Lake Brantley	East Orange*		1								
400	LKBRFLXADS1 -	NSN -	\$18.51	\$16,62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
	Lake Brantley	Geneva*			1							
401	LKBRFLXADS1 -	NSN -	\$24.12	\$21.46	\$249.50	\$217,21	\$4,569.26	\$3,890.69	\$12,410.55	\$10,562.45	\$43,117.50	\$36,626.18
	Lake Brantley	Lake Buena Vista*										
402	LKBRFLXADS1 -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
	Lake Brantley	Orlando*										
403	LKBRFLXADS1 -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
	Lake Brantley	Oviedo*										
404	LKBRFLXADS1 -	NSN -	\$20.84	\$18.73	\$177.14	\$156.88	\$2,543.93	\$2,201.45	ŇA	NA	NÄ	N/
	Lake Brantley	Sanford*										
405	LKBRFLXADS1 -	WNDRFLXARS0 -	\$35.96	\$32.20	\$228.10	\$197.54	\$4,453.34	\$3,778.06	\$12,111.39	\$10,270.68	\$42,300.13	\$35,811,89
	Lake Brantley	Windermere										
406	LKBRFLXADS1 -	WNGRFLXADS0 -	\$35.67	\$31.95	\$221.57	\$192.09	\$4,270.33	\$3,625.42	\$11,610.72	\$9,853.09	\$40,509.73	\$34,318.56
	Lake Brantley	Winter Garden										
407	LKBRFLXADS1 -	WNPKFLXADS1 -	\$29.28	\$26.46	\$80.62	\$70.89	\$1,290.87	\$1,108.53	\$3,495.57	\$3,000.03	\$11,995.16	\$10,270.01
	Lake Brantley	Winter Park							-			
408	LKHLFLXARSO -	NSN -	\$35.12	\$31.84	\$55.25	\$49.74	\$580.79	\$516.28	NA	NA	NA	N7
	Lake Helen	Deltona Lakes*										
409	LKHLFLXARS0 -	ORCYFLXADS0 -	\$35.12	\$31.84	\$55.25	\$49.74	\$580.79	\$516.28	NA	NA	NA	N7
	Lake Helen	Orange City										
410	LKPCFLXARS0 -	SBNGFLXADS1 -	\$35.52	\$32.17	\$61.61	\$55.05	\$758.92	\$664.85	\$2,040.27	\$1,786.22	NA	NZ
	Lake Placid	Sebring										
411	LKPCFLXARSO -	SLHLFLXARSO -	\$53.23	\$47.17	\$346.49	\$296.24	\$7,767.06	\$6,541.89	\$21,176.98	\$17,831.95	NA	N/
	Lake Placid	Spring Lake								. ,		
412	LSBGFLXADS1 -	MTDRFLXARS0 -	\$31.10	\$27.98	\$120.81	\$104.40	\$2,415.78	\$2,046.76	\$6,573.06	\$5,566.86	\$23,000.14	\$19,449.06
	Leesburg	Mt. Dora							1			
413	LSBGFLXADS1 -	MTVRFLXARS0 -	\$33.84	\$30.43	\$181.12	\$158.36	\$3,138.10	\$2,681.08	NA	NA	NA	N/
	Leesburg	Montverde			,	,						
414	LSBGFLXADS1 -	TVRSFLXADS0 -	\$31.10	\$27.98	\$120.81	\$104.40	\$2,415,78	\$2,046.76	\$6.573.06	\$5.566.86	\$23,000.14	\$19,449.06
1	Leesburg	Tavares	+	, , , , , , , , , , , , , , , , , , ,	+100.01	+101.10	1	1,2,010.00				

		APPENDIX A - DI	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STAI	F	
	ORIGINATING	TERMINATING	I	DS0	D	S1	I I	DS3	0	C3	OC	:12
			Sprint Prop.	Staff Recom.								
415	LSBGFLXADS1 -	UMTLFLXARSO -	\$34.39	\$30.89	\$193.32	\$168.54	\$3,479.72	\$2,966.01	\$9,447.79	\$8,049.07	NA	NĀ
	Leesburg	Umatılla										
416	LSBGFLXADS1 -	WLWDFLXARS0 -	\$30.74	\$27.68	\$112.79	\$97.72	\$2,191.29	\$1,859.52	\$5,958.90	\$5,054.61	\$20,803.92	\$17,617.24
	Leesburg	Wildwood										
417	LWTYFLXARSO ~	NSN -	\$21.50	\$19.44	\$91.03	\$81.41	\$1,099.33	\$964.71	NA	NA	NA	NA
	Lawtey	Raiford*										
418	LWTYFLXARS0 -	STRKFLXADS0 -	\$35.76	\$32.37	\$65.54	\$58.32	\$868.72	\$756.43	NA	NA	NA	NA
	Lawtey	Starke										
419	MALNFLXARS0 -	MRNNFLXADS0 -	\$35.66	\$32.29	\$63.97	\$57.01	\$824.80	\$719.80	\$2,220.51	\$1,936.56	NA	NA
	Malone	Marianna										
420	MALNFLXARSO -	NSN -	\$21.38	\$19.34	\$89.11	\$79.81	\$1,045.65	\$919.93	\$2,806.73	\$2,467.75	NA	NA
	Malone	Graceville*										
421	MALNFLXARSO -	SNDSFLXARSO -	\$39.95	\$36.09	\$132.91	\$118.17	\$1,788.69	\$1,555.61	\$4,821.54	\$4,190.48	NA	NA
	Malone	Sneads					Í					
422	MDSNFLXADS0 -	MNTIFLXADSÓ -	\$35.68	\$31.80	\$221.85	\$188.64	\$5,243.91	\$4,405.58	\$14,310.18	\$12,020.11	\$50,667.76	\$42,526.11
	Madıson	Monticello										
423	MDSNFLXADSO -	TLHSFLXADS0 -	\$35.68	\$31.80	\$221.85	\$188.64	\$5,243.91	\$4,405.58	\$14,310.18	\$12,020.11	\$50,667.76	\$42,526.11
	Madison	Calhoun										
424	MNTIFLXADS0 -	TLHSFLXADS0 -	\$35.68	\$31.80	\$221.85	\$188.64	\$5,243.91	\$4,405.58	\$14,310,18	\$12,020.11	\$50,667.76	\$42,526.11
	Monticello	Calhoun										
425	MOISFLXADS0 -	NNPLFLXADS1 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Marco Island	North Naples		i i					1			
426	MOISFLXADSO -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Marco Island	Naples										
427	MOISFLXADSO -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Marco Island	Naples Moorings							1			
428	MOISFLXADS0 -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059.59	\$13,175.32	\$11,073.56	\$46,609.53	\$39,141.21
	Marco Island	Naples Southeast										
429	MRNNFLXADS0 -	NSN -	\$17.99	\$16.28	\$34.56	\$30.65	\$484.39	\$419.94	NA	NA	NA	NA
	Marianna	Altha *	Í									
430	MRNNFLXADSO -	NSN -	\$17.41	\$15.79	\$25.14	\$22.80	\$220.85	\$200.13	\$586.22	\$531.19	NA	NA
	Marianna	Graceville*										
431	MRNNFLXADSO -	SNDSFLXARS0 -	\$35.97	\$32.55	\$68.94	\$61.15	\$963.89	\$835.81	\$2,601.03	\$2,253.93	NA	NA
	Marianna	Sneads		1								
432	MTDRFLXARSO -	MTVRFLXARS0 -	\$33.84	\$30.43	\$181.12	\$158.36	\$3,138.10	\$2,681.08	NA	NA	NA	NA
	Mt. Dora	Montverde										

		APPENDIX A - DE	EDICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STAI	F	
	ORIGINATING	TERMINATING	I	S0	D	S1	L L	DS3	0	СЗ	00	:12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
433	MTDRFLXARS0 -	TVRSFLXADS0 -	\$31.10	\$27.98	\$120.81	\$104.40	\$2,415.78	\$2,046.76	\$6,573.06	\$5,566.86	\$23,000.14	\$19,449.06
	Mt. Dora	Tavares										
434	MTDRFLXARS0 -	UMTLFLXARSO -	\$34.39	\$30.89	\$193.32	\$168.54	\$3,479.72	\$2,966.01	\$9,447.79	\$8,049.07	NA	NA
	Mt. Dora	Umatilla										1
435	MTDRFLXARSO -	WNPKFLXADS1 -	\$37.49	\$33.47	\$261.75	\$225.59	\$5,395.23	\$4,563.66	\$14,688.21	\$12,419.91	\$51,514.71	\$43,497.61
	Mt. Dora	Winter Park										
436	MTLDFLXADS1 -	KSSMFLXBDS1 -	\$39.15	\$35.02	\$298.44	\$259.86	\$5,456.27	\$4,646.43	\$14,819.23	\$12,613.70	\$51,478.40	\$43,732.39
	Maitland	Reedy Creek					]					
437	MTLDFLXADS1 -	MNTIFLXADS0 -	\$47.35	\$42.20	\$479.55	\$418.22	\$8,594.36	\$7,327.52	NA	. NA	NA	NA
	Maitland	Montverde										
438	MTLDFLXADS1 -	NSN -	\$24.88	\$22.10	\$266.41	\$231.31	\$5,042.65	\$4,285.52	\$13,705.64	\$11,642.64	NA	NA
	Maitland	Celebration*										
439	MTLDFLXADS1 -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
	Maitland	East Orange*										
440	MTLDFLXADS1 -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
	Maitland	Geneva*										
441	MTLDFLXADS1 -	NSN -	\$24.12	\$21.46	\$249.50	\$217.21	\$4,569.26	\$3,890.69	\$12,410.55	\$10,562.45	\$43,117.50	\$36,626.18
	Maitland	Lake Buena Vista*										
442	MTLDFLXADS1 -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
	Maitland	Orlando*										
443	MTLDFLXADS1 -	NSN -	\$18.51	\$16.62	\$125.72	\$110.34	\$2,070.51	\$1,774.73	\$5,610.52	\$4,806.29	\$19,305.70	\$16,500.14
	Maitland	Oviedo*										
444	MTLDFLXĀDS1 -	NSN -	\$20.84	\$18.73	\$177.14	\$156.88	\$2,543.93	\$2,201.45	NA	NA	NA	NA
	Maitland	Sanford*										
445	MTLDFLXADS1 -	WNDRFLXARS0 -	\$35.96	\$32.20	\$228.10	\$197.54	\$4,453.34	\$3,778.06	\$12,111.39	\$10,270.68	\$42,300.13	\$35,811.89
	Maitland	Windermere										
446	MTLDFLXADS1 -	WNGRFLXADS0 -	\$35.67	\$31.95	\$221.57	\$192.09	\$4,270.33	\$3,625.42	\$11,610.72	\$9,853.09	\$40,509.73	\$34,318.56
	Maitland	Winter Garden								-	-	
447	MTLDFLXADS1 -	WNPKFLXADS1 -	\$29.28	\$26.46	\$80.62	\$70.89	\$1,290.87	\$1,108.53	\$3,495.57	\$3,000.03	\$11,995.16	\$10,270.01
	Maitland	Winter Park										
448	MTVRFLXARSO -	KSSMFLXBDS1 -	\$48.02	\$43.05	\$262.69	\$230.06	\$4,455.81	\$3,811.99	NA	NA	NA	NA
	Montverde	Reedy Creek										
449	MTVRFLXARSO -	NSN -	\$21.98	\$19.83	\$98.61	\$87.73	\$1,311.63	\$1,141.77	NA	NA	NA	NA
	Montverde	Celebration*										
450	MTVRFLXARS0 -	NSN -	\$31.16	\$27.72	\$246.36	\$214.60	\$4,481.41	\$3,817.42	NA	NA	NA	NA
	Montverde	East Orange*										

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STA	FF	
	ORIGINATING	TERMINATING	E	s0	D	S1	I	DS3	0	СЗ	00	:12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
451	MTVRFLXARS0 -	NSN -	\$30.10	\$26.83	\$229.18	\$200.28	\$4,000.70	\$3,416.48	NA	NA	NA	NA
	Montverde	Lake Buena Vista*										
452	MTVRFLXARSO -	NSN -	\$31.16	\$27.72	\$246.36	\$214.60	\$4,481.41	\$3,817.42	NA	NA	NA	NA
	Montverde	Orlando*										
453	MTVRFLXARSO -	TVRSFLXADS0 -	\$42.95	\$38.59	\$181.12	\$158.36	\$3,138.10	\$2,681.08	NA	NA	NA	NA
	Montverde	Tavares										
454	MTVRFLXARS0 -	UMTLFLXARSO -	\$47.46	\$42.58	\$253.63	\$222.50	\$4,202.03	\$3,600.33	NA	NA	NA	NA
	Montverde	Umatılla										
455	MTVRFLXARSO -	WNDRFLXARSO -	\$44.61	\$39.98	\$207.79	\$180.60	\$3,884.78	\$3,303.86	NA	NA	NA	NA
	Montverde	Windermere										
456	MTVRFLXARSO -	WNGRFLXADS0 -	\$35.44	\$32.10	\$60.31	\$53.96	\$722.32	\$634.32	NA	NÄ	NA	NA
	Montverde	Winter Garden										
457	MTVRFLXARSO -	WNPKFLXADS1 -	\$44.20	\$39.64	\$201.25	\$175.15	\$3,701.77	\$3,151.22	NA	NA	NA	NA
	Montverde	Winter Park										
458	NFMYFLXADSÖ -	CPCRFLXBDS1 -	\$29.06	\$26.28	\$75.74	\$66.82	\$1,154.22	\$994.55	\$3,121.73	\$2,688.23	\$10,658.33	\$9,154.99
	North Fort Myers	North Cape Coral										
459	NFMYFLXADSO -	PNGRFLXADS1 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5,877.04	\$19,136.71	\$16,045.73	\$67,927.20	\$56,921.88
	North Fort Myers	Punta Gorda							,	,		,
460	NFMYFLXADS0 -	PNISFLXADSO -	\$30.97	\$27.87	\$117.84	\$101.93	\$2,332.81	\$1,977.56	\$6,346.09	\$5.377.55	\$22,188.50	\$18,772.08
1	North Fort Myers	Pine Island						1				120,00
461	NFMYFLXADS0 -	SNISFLXADSO -	\$30.97	\$27.87	\$117.84	\$101.93	\$2,332.81	\$1,977.56	\$6,346.09	\$5,377.55	\$22,188,50	\$18,772.08
	North Fort Myers	Sanıbel-Captıva Isl.							,			1 , · · - • • •
462	NNPLFLXADS1 -	MOISFLXADS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4,059,59	\$13,175.32	\$11,073,56	\$46,609.53	\$39,141.21
	North Naples	Marco Island				•		,				,00,111,01
463	NPLSFLXCDS0 -	NNPLFLXADS1 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4.059.59	\$13,175,32	\$11,073,56	\$46,609.53	\$39,141.21
ł	Naples	North Naples						.,	,			1007212102
464	NPLSFLXCDS0 -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4.059.59	\$13,175,32	\$11,073 56	\$46,609.53	\$39,141.21
	Naples	Naples Southeast					,	.,		, ,		,
465	NPLSFLXCDS0 -	NNPLFLXADS1 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4.059.59	\$13,175,32	\$11.073.56	\$46,609.53	\$39,141.21
	Naples Moorings	North Naples			1	12.0120	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	+ 1,003103	110,110102	411,070.00	1 10,005.00	400,111.21
466	NPLSFLXCDS0 -	NPLSFLXCDS0 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4.059.59	\$13,175,32	\$11.073.56	\$46,609.53	\$39,141.21
	Naples Moorings	Naples Southeast	1				, 025.05		1 - 0, 1, 0, 02	1 - 1, 0, 0, 0, 0	+.0,005.00	+ • • • • • • • • • • • • • • • • • • •
467	NPLSFLXCDS0 ~	NNPLFLXADS1 -	\$35.01	\$31.24	\$207.03	\$176.29	\$4,829.09	\$4.059.59	\$13 175 32	\$11 073 56	\$46,609.53	539 141 21
	Naples Southeast	North Naples		,01.01	,20,100	41.0.20	1,025.05	1 - 1,000.00	++0, 1, 0.02	+11,07 <b>5.</b> 50	410,000.00	+ = = + = = = = = = = = = = = = = = = =
468	NPLSFLXCDS0 -	SHLMFLXADS0 -	\$35.20	\$31,48	\$211.16	\$181.57	\$4.461.86	\$3,769.24	\$12 152 69	\$10 262 88	\$42,700.24	536 013 08
	Niceville	Shalimar	1	, , , , , , , , , , , , , , , , , , , ,		7101.0 <i>1</i>	1,1,101.00		+ 1 c, 1 0 c . 0 0	÷10,202.00	, , , , , , , , , , , , , , , , , , ,	\$30,013.00

	APPENDIX A - DI	EDICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STAI	F	
ORIGINA	TING TERMINATING		S0	D	S1	T T	DS3	0	C3	00	:12
		Sprint Prop.	Staff Recom.								
469 OCALFLXADSC	- NSN -	\$24.97	\$22.01	\$268.26	\$229.18	\$6,060.16	\$5,102.31	NA	NA	NA	NF
Ocala	Citra*										
470 OCALFLXADSC	- NSN -	\$24.56	\$21.67	\$259.37	\$221.76	\$5,811.26	\$4,894.72	\$15,844.35	\$13,341.95	\$55,901.44	\$47,023.96
Ocala	Dunnellon*										
471 OCALFLXADSC	- NSN -	\$18.07	\$16.35	\$35.86	\$31.74	\$520.99	\$450.47	NA	NA	NA	NA
Ocala	McIntosh*					_					
472 OCALFLXADSC	- NSN -	\$18.07	\$16.35	\$35.86	\$31.74	\$520.99	\$450.47	NA	NA	NA	NA
Ocala	Orange Springs*										
473 OCALFLXADSC	- OCALFLXBDSO -	\$36.16	\$32.20	\$232.39	\$197.44	\$5,539.17	\$4,651.84	\$15,117.94	\$12,693.83	\$53,556.27	\$44,935.36
Ocala	Shady Road										
474 OCALFLXADSC	- OKLWFLXADSO -	\$29.48	\$26.63	\$84.98	\$74.53	\$1,412.88	\$1,210.29	\$3,829.35	\$3,278.43	\$13,188.76	\$11,265.57
Ocala	Ocklawaha							·			
475 OCALFLXADSC	- SSPRFLXARSO -	\$30.15	\$27.19	\$99.71	\$86.81	\$1,825.26	\$1,554.24	\$4,957.55	\$4,219.41	\$17,223.13	\$14,630.56
Ocala	Salt Springs									_	
476 OCALFLXADSC	- SVSPFLXARS0 -	\$30.15	\$27.19	\$99.71	\$86.81	\$1,825.26	\$1,554.24	\$4,957.55	\$4,219.41	\$17,223.13	\$14,630.56
Ocala	Silver Springs		1						1	_	
477 OCALFLXADSC	- SVSSFLXARS0 -	\$29.48	\$26.63	\$84.98	\$74.53	\$1,412.88	\$1,210.29	\$3,829.35	\$3,278.43	\$13,188.76	\$11,265.57
Ocala	Silver Springs Shore	s									
478 OCALFLXADSC	- WLSTFLXARSO -	\$39.30	\$34.98	\$301.68	\$258.88	\$6,512.82	\$5,495.79	\$17,745.67	\$14,970.03	NA	NA
Ocala	Williston		1			ļ					
479 OCALFLXADSC	- WLWDFLXARSÓ -	\$41.27	\$36.62	\$345.18	\$295.15	\$7,730.46	\$6,511.36	\$21,076.84	\$17,748.44	\$74,360.19	\$62,552.60
Ocala	Wildwood										
480 OCALFLXCRSC	- LDLKFLXARSO -	\$51.47	\$45.46	\$570.41	\$490.29	\$12,103.27	\$10,222.27	\$32,967.94	\$27,835.37	\$115,872.55	\$97,707.42
Highlands	Lady Lake (821)										
481 OCALFLXCRSC	- NSN -	\$18,96	\$17.00	\$135.57	\$118.55	\$2,346.25	\$2,004.71	NA	NA	NA	NF
Highlands	Citra*										
482 OCALFLXCRSC	- NSN -	\$29.08	\$25.60	\$359.08	\$308.58	\$7,636.53	\$6,448.96	\$20,801.89	\$17,561.36	\$73,124.57	\$61,654.52
Highlands	Dunnellon*										
483 OCALFLXCRSC	– NSN –	\$18.96	\$17.00	\$135.57	\$118.55	\$2,346.25	\$2,004.71	NA	NA	NA	NA
Highlands	McIntosh*					ł		1	1		
484 OCALFLXCRSC	- NSN -	\$18.96	\$17.00	\$135.57	\$118.55	\$2,346.25	\$2,004.71	NA	NA	NA	NA
Highlands	Orange Springs*										
485 OCALFLXCRSC		\$30.15	\$27.19	\$99.71	\$86.81	\$1,825.26	\$1,554.24	\$4,957.55	\$4,219.41	\$17,223.13	\$14,630.56
Highlands	Ocala		1							1	
486 OCALFLXCRSC	- OCALFLXBDS0 -	\$40.67	\$36.13	\$332.11	\$284.25	\$7,364.44	\$6,206.08	\$20,075.49	\$16,913.24	\$70,779.40	\$59,565.92
Highlands	Shady Road										

	A	PPENDIX A - DEL	ICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STAR	F	
	ORIGINATING	TERMINATING	D	S0	D	\$1	I	083	0	C3	00	:12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
	[		Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
487		OKLWFLXADS0 -	\$34.00	\$30.56	\$184.69	\$161.34	\$3,238.14	\$2,764.53	\$8,786.90	\$7,497.84	\$30,411.89	\$25,896.13
	Highlands	Ocklawaha					]					
488	1	SSPRFLXARS0 -	\$30.15	\$27.19	\$99.71	\$86.81	\$1,825.26	\$1,554.24	\$4,957.55	\$4,219.41	\$17,223.13	\$14,630.56
		Salt Springs										
489	OCALFLXCRS0 -	SVSSFLXARSO -	\$34.00	\$30.56	\$184.69	\$161.34	\$3,238.14	\$2,764.53	\$8,786.90	\$7,497.84	\$30,411.89	\$25,896.13
	Highlands	Silver Springs Shores										
490	OCNFFLXARSO - I	LDLKFLXARSO -	\$55.10	\$48.66	\$650.68	\$560.90	\$13,384.38	\$11,322.65	\$36,436.80	\$30,813.14	\$127,772.23	\$107,897.79
		Lady Lake (821)										
491	OCNFFLXARSO - N	NSN -	\$18.96	\$17.00	\$135.57	\$118.55	\$2,346.25	\$2,004.71	NA	NA	NA	NA
	Forest	Citra*										
492	OCNFFLXARS0 - N	NSN -	\$29.08	\$25.60	\$359.08	\$308.58	\$7,636.53	\$6,448.96	\$20,801.89	\$17,561.36	\$73,124.57	\$61,654.52
	Forest	Dunnellon*										
493	OCNFFLXARS0 - N	ISN -	\$18.96	\$17.00	\$135.57	\$118.55	\$2,346.25	\$2,004.71	NA	NA	NA	NA
	Forest	McIntosh*									1	
494	OCNFFLXARSO - N	NSN -	\$18.96	\$17.00	\$135.57	\$118.55	\$2,346.25	\$2,004.71	NA	NA	NA	NA
	Forest	Drange Springs*										
495	OCNFFLXARS0 -	CALFLXADS0 -	\$34.00	\$30.56	\$184.69	\$161.34	\$3,238.14	\$2,764.53	\$8,786.90	\$7,497.84	\$30,411.89	\$25,896.13
	Forest	Dcala										
496	OCNFFLXARSO - C	CALFLXCRS0 -	\$34.00	\$30.56	\$184.69	\$161.34	\$3,238.14	\$2,764.53	\$8,786.90	\$7,497.84	\$30,411.89	\$25,896.13
	Forest	Highlands		,								
497	OCNFFLXARSO - C	OKLWFLXADSO -	\$34.00	\$30.56	\$184.69	\$161.34	\$3,238.14	\$2,764.53	\$8,786.90	\$7,497.84	\$30,411.89	\$25,896.13
	Forest	Ocklawaha										
498	OCNFFLXARSO -	SSPRFLXARS0 -	\$34.00	\$30.56	\$184.69	\$161.34	\$3,238.14	\$2,764.53	\$8,786.90	\$7,497.84	\$30,411.89	\$25,896.13
	Forest	Salt Springs						,				
499		SVSSFLXARS0 -	\$34.00	\$30.56	\$184.69	\$161.34	\$3,238.14	\$2,764.53	\$8,786.90	\$7,497.84	\$30,411.89	\$25,896.13
	Forest	Silver Springs Shores					,					
500		SBNGFLXADS1 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5,877.04	\$19,136.71	\$16,045.73	\$67,927.20	\$56,921.88
	Okeechobee S	Sebring					, , , ,					
501	OKLWFLXADSO - E	ESTSFLXARS0 -	\$45.69	\$40.48	\$442.89	\$380.29	\$9,499.60	\$8,018.79	\$25,880.85	\$21,839.79	\$91,034.26	\$76,725.20
	Ocklawaha B	Eustis								,		
502	OKLWFLXADSÖ - I	LSBGFLXADS1 -	\$34.59	\$31.06	\$197.77	\$172.24	\$3,604.16	\$3,069.81	\$9,788.25	\$8,333.04	\$33,992.68	\$28,882.81
	Ocklawaha I	Leesburg										
503		ISN -	\$18.29	\$16.44	\$120.84	\$106.27	\$1,933.87	\$1,660.75	NA	NA	NA	NA
	Ocklawaha	Citra*					,	,				
504		NSN -	\$28.41	\$25.05	\$344.34	\$296.29	\$7,224.14	\$6,105.00	\$19,673.70	\$16,620.38	\$69,090.20	\$58,289.53
	Ocklawaha	Dunnellon*		. = • • • •			. ,					

		APPENDIX A - DEI			ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STAL	FF	
	ORIGINATING	TERMINATING	Ľ	S0	D	S1		DS3	0	C3	00	:12
			Sprint	f.	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
505	OKLWFLXADSO -	NSN -	\$18.29	\$16.44	\$120.84	\$106.27	\$1,933.87	\$1,660.75	NA	NA		NA
500	Ocklawaha	McIntosh*										
506	OKLWFLXADSO -	NSN -	\$18.29	\$16.44	\$120.84	\$106.27	\$1,933.87	\$1,660.75	NA	NA	NA	NA
	Ocklawaha	Orange Springs*										
507	OKLWFLXADSO -	SSPRFLXARS0 -	\$34.00	\$30.56	\$184.69	\$161.34	\$3,238.14	\$2,764.53	\$8,786.90	\$7,497.84	\$30,411.89	\$25,896.13
_	Ocklawaha	Salt Springs										,
508	OKLWFLXADSO -	SVSSFLXARS0 -	\$29.48	\$26.63	\$84.98	\$74.53	\$1,412.88	\$1,210.29	\$3,829.35	\$3,278.43	\$13,188,76	\$11,265.57
	Ocklawaha	Silver Springs Shores										
509	OKLWFLXADSO -	UMTLFLXARSO -	\$48.76	\$43.20	\$510.69	\$440.50	\$10,431.77	\$8,828.14	\$28,395.09	\$24,021.33	NA	NA
	Ocklawaha	Umatilla								[· '		
510	ORCYFLXADSO -	NSN -	\$17.70	\$16.04	\$29.94	\$26.80	\$355.06	\$312.07	\$953.38	\$837.43	NA	NA
	Orange City	DeBary*								,		
511	ORCYFLXADS0 -	NSN -	\$17.50	\$15.87	\$26.71	\$24.11	\$264.77	\$236.77	NA	NA	NA	NA
L	Orange City	Deland*										
512	ORCYFLXADS0 -	NSN -	\$17.50	\$15.87	\$26.71	\$24.11	\$264.77	\$236.77	NA	NA	NA NA	NA
	Orange City	DeLeon Springs*										
513	ÓRCYFLXÁDSO -	NSN -	\$35.12	\$31.84	\$55.25	\$49.74	\$580.79	\$516.28	NA	NA	NA	NA
	Orange City	Deltona Lakes*										
514	ORCYFLXADS0 -	NSN -	\$17.70	\$16.04	\$29.94	\$26.80	\$355.06	\$312.07	\$953.38	\$837.43	NA	NA
	Orange City	Sanford*						,	+	+00/115		
515	ORCYFLXADS0 -	WNPKFLXADS1 -	\$40.84	\$36.84	\$147.20	\$130.09	\$2,188.88	\$1,889.38	NA	NA	NA	NA
	Orange City	Winter Park					12,200000	+1,005100				10
516	PANCFLXARS0 -	NSN -	\$21.34	\$19.15	\$188.21	\$166.12	\$2,853.83	\$2,459.93	\$7,717.55	56 648 19	NA	NA
	Panacea	Alligator Point*			,	4100.10	1 12/000100	42,105.55	<i>Q1,1</i> 1.00	¢0,040.15	NA NA	114
517	PANCFLXARS0 -	SPCPFLXADS0 -	\$33.02	\$29.74	\$163.07	\$143.32	\$2,632.98	\$2,259.79	\$7 131 33	\$6,116.99	\$24,491.64	\$20,958.16
	Panacea	Sopchoppy		,	, _ 00000	4 # 10102	+2,002.00	42,205.15	<i>\$1,101,00</i>	<i>vo</i> , 110. <i>35</i>	724,491.04	920, 550.10
518	PANCFLXARS0 -	STMKFLXARSO -	\$31.22	\$28.25	\$123.40	\$110.24	\$1,522.72	\$1,333.77	\$4,093.89	\$3 583 58	\$13,629.89	\$11,898.58
	Panacea	St. Marks		,	1200110	, <b></b> 0 <b>.</b> 2 1	41,022.12	41,000.11	Q4,055.05	<i>\$3</i> ,303.30	915,025.05	Ŷ11,090.90
519	PANCFLXARS0 -	TLHSFLXADS0 -	\$33.02	\$29.74	\$163.07	\$143.32	\$2,632.98	\$2,259.79	\$7,131.33	\$6 116 00	\$24,491.64	\$20,958.16
	Panacea	Calhoun	400.02	+23171	¥103.07	Q110.04	<i>vz</i> , 05 <i>z</i> .50	72,235.15	97,151.55	YU, 110.99	924,491.04	920,930.10
520	PNISFLXADS0 -	SNISFLXADS0 -	\$30.97	\$27.87	\$117.84	\$101.93	\$2,332.81	S1 977 56	\$6,346.09	\$5 377 FF	\$22 100 EA	\$18,772.08
	Pine Island	Sanibel-Captiva Isl.	100.07	727.07	+11/ <b>.</b> 04	4T01.99	72,552.01	Y1, 311.30	v0, 340.09	45,511.35	422,100.JU	410,112.00
521	PNISFLXADS0 -	RYHLFLXARSO -	\$50,92	\$45.70	\$309.31	\$272.60	\$4,795.02	\$4,126.79	NA	NA	NA	NA
1	Ponce de Leon	Reynolds Hill	+50.52	<i><b>410.10</b></i>	4202.JI	YZ12.00	, , , , , , , , , , , , , , , , , , ,	74,120.79	NA	NA	NA NA	NA
522	PNISFLXADSO -	SGBHFLXARSO -	\$46.47	\$41.53	\$237.69	\$205.53	\$4,721.75	\$4,001.94	NA	NT 73	177	
	Ponce de Leon	Seagrove Beach	VI0.4/	A4T.72	7231.09	4203.33	94, 121. 15	\$4,001.94	NA	NA	NA	NA
L	Longe de licon	beagrove beach					l	I				

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STAL	F	
	ORIGINATING	TERMINATING	E	so	D	S1	L L	0\$3	0	C3	00	:12
			Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
523	PNISFLXADS0 -	SNRSFLXARS0 -	\$46.47	\$41.53	\$237.69	\$205.53	\$4,721.75	\$4,001.94	NA	NA		NA
	Ponce de Leon	Santa Rosa Beach										
524	PNISFLXADSO -	VLPRFLXADSÓ -	\$46.47	\$41.53	\$237.69	\$205.53	\$4,721.75	\$4,001.94	NA	NA	NA	NĀ
	Ponce de Leon	Valparaiso										
525	PNISFLXADS0 -	WSTVFLXARSO -	\$47.40	\$42.54	\$252.76	\$221.77	\$4,177.63	\$3,579.98	NA	NA	NA	NA
	Ponce de Leon	Westville										
526	PTCTFLXADS0 -	NSN -	\$17.87	\$16.17	\$32.55	\$28.98	\$428.26	\$373.13	\$1,153.65	\$1,004.47	NA	NA
	Port Charlotte	North Port*					1	}			[	
527	PTCTFLXADS0 -	PNGRFLXADS1 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5,877.04	\$19,136.71	\$16,045.73	\$67,927.20	\$56,921.88
	Port Charlotte	Punta Gorda										
528	RYHLFLXARS0 -	NSN -	\$26.41	\$23.76	\$169.99	\$150.92	\$2,343.84	\$2,034.57	NA	NA	NA	NA
	Reynolds Hill	Graceville*										
529	RYHLFLXARS0 -	WSTVFLXARSO -	\$40.69	\$36.71	\$144.85	\$128.12	\$2,122.99	\$1,834.43	NA	NA	NA	NÀ
	Reynolds Hill	Westville										
530	SBNGFLXADS1 -	SLHLFLXARS0 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5,877.04	\$19,136.71	\$16,045.73	\$67,927.20	\$56,921.88
	Sebring	Spring Lake										
531	SBNGFLXADS1 -	WCHLFLXADS0 -	\$38.54	\$34.18	\$284,88	\$241.19	\$7,008.14	\$5.877.04	\$19,136.71	\$16,045.73	\$67,927,20	\$56,921.88
	Sebring	Wauchula							,			
532	SHLMFLXADSO -	VLPRFLXADS0 -	\$36.44	\$32.60	\$238.56	\$206.26	\$4,746.15	\$4.022.29	\$12,912.48	\$10.938.84	\$45.164.77	\$38,201,24
	Shalımar	Valparaiso							1	,	,	
533	SNANFLXARSO -	NSN -	\$17.29	\$15.61	\$98.79	\$87.88	\$1,316.51	\$1,145.84	NA	NA	NA	NA
	San Antonio	Brooksville*										
534	SNANFLXARSO -	NSN -	\$17.29	\$15.61	\$98.79	\$87.88	\$1,316.51	\$1.145.84	NA	NA	NA	NA
	San Antonio	Tampa Central*					,		1	1		
535	SNANFLXARSÓ -	NSN -	\$17.29	\$15.61	\$98.79	\$87.88	\$1,316.51	\$1,145.84	NA	NA	NA	NA
	San Antonio	Tampa North*	,			1		+-,				
536	SNANFLXARSO -	NSN -	\$17.29	\$15.61	\$98.79	\$87.88	\$1,316.51	\$1,145.84	NA	NA	NA	NA
	San Antonio	Zephyrhills*	1					, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,				
537	SNANFLXARSO -	TLCHFLXARS0 -	\$28.87	\$26.12	\$71.55	\$63.34	\$1,037.09	\$896.86	\$2,801,30	\$2,420.97	\$9,512.48	\$8,199,25
	San Antonio	Trilacoochee			,	,	,	,				
538	SNDSFLXARS0 -	NSN -	\$21.69	\$19.59	\$94.08	\$83.96	\$1,184.74	\$1,035.94	\$3,187.24	\$2,785,12	NA	NA
	Sneads	Chattahoochee*	1,22.00	1	+500	+00.90	1 1 1 1 0 1 1 1 1	-1,000.01	1,0,10,124	1 - / / 00, 12	1021	
539	SNDSFLXARS0 -	NSN -	\$21.69	\$19.59	\$94.08	\$83.96	\$1,184 74	\$1 035 94	\$3,187.24	\$2.785 12	NA	NA
	Sneads	Graceville*		1	+51.00	+00.00	, 1, 10, 1, 1	1 7 1,000.04		1-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
540	SNRSFLXARSO -	SGBHFLXARSO -	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999,44	\$3.367.62	\$10,905,58	\$9,180.45	\$38,493.06	\$32,371.41
	Santa Rosa Beach	Seagrove Beach	1		,1,00	,101.07		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1 20, 500, 50		100,100.00	,,

		APPENDIX A - DEI	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STA	FF	
	ORIGINATING	TERMINATING	E	S0	D	<b>S</b> 1	I	DS3	0	C3	00	:12
			Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
1	SNRSFLXARSO - Santa Rosa Beach	VLPRFLXADSO - Valparaiso	\$33.67	\$30.12	\$177.39	\$151.57	\$3,999.44		\$10,905.58		\$38,493.06	\$32,371.41
	SPCPFLXADSO - Sopchoppy	NSN - Alligator Point*	\$18.48	\$16.60	\$125.03	\$109.76	\$2,050.99	\$1,758.44	\$5,557.11	\$4,761.74	NA	NA
	SPCPFLXADŠO - Sopchoppy	NSN - Carrabelle*	\$18.48	\$16.60	\$125.03	\$109.76	\$2,050.99	\$1,758.44	\$5,557.11	\$4,761.74	NA	NA
		STMKFLXÅRSO - St. Marks	\$32.88	\$29.63	\$160.11	\$140.84	\$2,550.02	\$2,190.59	\$6,904.36	\$5,927.68	\$23,679.99	\$20,281.18
	SPCPFLXADSO - Sopchoppy	TLHSFLXADSO - Calhoun	\$30.16	\$27.19	\$99.89	\$86.96	\$1,830.14	\$1,558.31	\$4,970.90	\$4,230.55	\$17,270.87	\$14,670.38
	SSPRFLXARSO - Salt Springs	NSN - Citra*	\$18.96	\$17.00	\$135.57	\$118.55	\$2,346.25	\$2,004.71	NA	NA	NA	NÀ
		NSN - Dunnellon*	\$29.08	\$25.60	\$359.08	\$308.58	\$7,636.53	\$6,448.96	\$20,801.89	\$17,561.36	\$73,124.57	\$61,654.52
l I	SSPRFLXARSO - Salt Springs	NSN - McIntosh*	\$18.96	\$17.00	\$135.57	\$118.55	\$2,346.25	\$2,004.71	NA	NA	NA	NA
	SSPRFLXARSO - Salt Springs	NSN - Orange Springs*	\$18.96	\$17.00	\$135.57	\$118.55	\$2,346.25	\$2,004.71	NA	NA	NA	NA
	SSPRFLXARSO - Salt Springs	SVSSFLXARSO - Silver Springs Shores	\$34.00	\$30.56	\$184.69	\$161.34	\$3,238.14	\$2,764.53	\$8,786.90	\$7,497.84	\$30,411.89	\$25,896.13
		KSSMFLXBDS1 - West Kissimmee	\$32.02	\$28.74	\$140.95	\$121.19	\$2,979.45	\$2,516.90	\$8,115.15	\$6,853.05	\$28,514.57	\$24,048.54
	STCDFLXÄRS0 - St. Cloud	NSN - Celebration*	\$21.23	\$18.89	\$185.79	\$160.42	\$3,751.78	\$3,176.99	\$10,210.07	\$8,642.60	NA	NA
	STCDFLXARS0 - St. Cloud	NSN - Orlando*	\$21.24	\$18.90	\$186.05	\$160.64	\$3,759.10	\$3,183.10	\$10,230.09	\$8,659.31	\$35,825.11	\$30,278.66
	St. Cloud	WNPKFLXADS1 - Winter Park	\$32.02	\$28.74	\$140.95	\$121.19	\$2,979.45	\$2,516.90	\$8,115.15	\$6,853.05	\$28,514.57	\$24,048.54
	St. Marks	NSN - Alligator Poınt*	\$21.21	\$19.04	\$185.25	\$163.64	\$2,770.87	\$2,390.73	\$7,490.57	\$6,458.88	NA	NA
	STMKFLXARSO - St. Marks	TLHSFLXDDS0 - Blairstone	\$32.88	\$29.63	\$160.11	\$140.84	\$2,550.02	\$2,190.59	\$6,904.36	\$5,927.68	\$23,679.99	\$20,281.18
	Starke	LWTYFLXARSO - Lawtey	\$35.76	\$32.37	\$65.54	\$58.32	\$868.72	\$756.43	NA	NA	NA	NA
558		NSN - Brooker*	\$17.43	\$15.81	\$25.49	\$23.09	\$230.61	\$208.28	NA	NA	NA	NA

	APPENDIX A - DI	EDICATE	D INTE	ROFFICE	TRANS	PORT PRI	CE LIST	- SPRIN	T & STAI	FF	
ORIGINATING	TERMINATING	I	S0	D	S1	L	DS3	0	C3	00	12
		Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.	Sprint Prop.	Staff Recom.
559 STRKFLXADS0 -	NSN -	\$17.43	\$15.81	\$25.49	\$23.09	\$230.61	\$208.28	\$612.92	\$553.47	NA	
Starke	Keystone Heights*								,		
560 STRKFLXADSO -	NSN -	\$17.43	\$15.81	\$25.49	\$23.09	\$230.61	\$208.28	NA	NA	NA	NA
Starke	Lake Butler*										
561 STRKFLXADS0 -	NSN -	\$17.43	\$15.81	\$25.49	\$23.09	\$230.61	\$208.28	NA	NA	NA	NA
Starke	Raiford*										
562 STRKFLXADSO -	NSN -	\$17.43	\$15.81	\$25.49	\$23.09	\$230.61	\$208.28	NA	NA	NA	ŇA
Starke	Waldo*					]					
563 SVSSFLXARSO -	NSN -	\$18.29	\$16.44	\$120.84	\$106.27	\$1,933.87	\$1,660.75	NA	NA	ŃA	NA
Silver Springs	Citra*										
Shores											
564 SVSSFLXARSO -	NSN -	\$28.41	\$25.05	\$344.34	\$296.29	\$7,224.14	\$6,105.00	\$19,673.70	\$16,620.38	\$69,090.20	\$58,289.53
Silver Springs	Dunnellon*										
Shores											
565 SVSSFLXARSÓ -	NSN -	\$18.29	\$16.44	\$120.84	\$106.27	\$1,933.87	\$1,660.75	NA	NA	NA	NA
Silver Springs	McIntosh*	·									
Shores											
566 SVSSFLXARSO -	NSN -	\$18.29	\$16.44	\$120.84	\$106.27	\$1,933.87	\$1,660.75	NA	NA	NA	NA
Silver Springs	Orange Springs*										
Shores											
567 SVSSFLXARSO -	WLWDFLXARSO -	\$34.59	\$31.06	\$197.77	\$172.24	\$3,604.16	\$3,069.81	\$9,788.25	\$8,333.04	\$33,992.68	\$28,882.81
Silver Springs	Wildwood										
Shores 568 TLCHFLXARSO -											
Trilacoochee	BSHNFLXADS0 -	\$39.40	\$35.06	\$303.95	\$260.77	\$6,576.27	\$5,548.71	\$17,919.24	\$15,114.80	\$63,068.75	\$53,134.61
569 TLCHFLXARS0 -	Bushnell NSN -										
Trilacoochee	NSN - Brooksville*	\$17.29	\$15.61	\$98.79	\$87.88	\$1,316.51	\$1,145.84	NA	NA	NA	NA
570 TLCHFLXARS0 -	NSN -	\$17.29	\$15.61	\$98.79		61 21 6 51					
Trilacoochee	Zephyrhills*	\$17.29	\$15.61	\$98.79	\$87.88	\$1,316.51	\$1,145.84	NA	NA	NA	NA
571 TLHSFLXADS0 -	NSN -	017 41	ATE 70	<u> </u>		1000 05		4500.00			
Calhoun		\$17.41	\$15.79	\$25.14	\$22.80	\$220.85	\$200.13	\$586.22	\$531.19	NA	NA
572 TLHSFLXADS0 -	Alligator Point*	017 01	A15 70	005 11			4000 10	<b>A</b> 505.00			
Calhoun	Bristol*	\$17.41	\$15.79	\$25.14	\$22.80	\$220.85	\$200.13	\$586.22	\$531.19	NA	NA
573 TLHSFLXADS0 -	NSN -	\$17.41	215 70	60F 14		0000 05		<u> </u>	45.24		
Calhoun	Carrabelle*	\$17.41	\$15.79	\$25.14	\$22.80	\$220.85	\$200.13	\$586.22	\$531.19	NA	NA
574 TLHSFLXADSO -	NSN -	\$17.41	\$15.79	\$25,14		6000 05	6200 10	6500.00-	<u> </u>		
Calhoun	Chattahoochee*	<sup>→⊥/.41</sup>	\$15.79	⊋∠⊃,⊥4	\$22.80	\$220.85	\$200.13	\$586.22	\$531.19	NA	NA
Carnoun	chactanoocnee^										

	APPENDIX A - DEDICATED INTEROFFICE TRANSPORT PRICE LIST - SPRINT & STAFF											
	ORIGINATING	TERMINATING		050	D	S1	Γ	53	0	C3	OČ	12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
575	TLHSFLXADS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
	Calhoun	Greensboro*	_									
576	TLHSFLXADS0 -	NSN -	\$19.57	\$17.51	\$149.09	\$129.82	\$2,724.47	\$2,320.16	\$7,399.60	\$6,298.50	NA	NA
	Calhoun	Gretna*					1		1	1		
577	TLHSFLXADS0 -	NSN -	\$18.49	\$16.69	\$42.49	\$37.26	\$706.44	\$605.14	\$1,914.68	\$1,639.22	NA	NA
	Calhoun	Havana*	_									
578	TLHSFLXADS0 -	NSN -	\$17.41	\$15.79	\$25.14	\$22.80	\$220.85	\$200.13	\$586.22	\$531.19	NA	NA
	Calhoun	Hosford*										
579	TLHSFLXADS0 -	NSN -	\$25.13	\$22.14	\$271.83	\$232.16	\$6,160.21	\$5,185.75	\$16,798.97	\$14,138.17	NA	NA
	Calhoun	Perry*										
580	TLHSFLXADS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
_	Calhoun	Quincy*										
581	TLHSFLXADSO -	TLHSFLXBDS0 -	\$28.79	\$26.05	\$69.72	\$61.81	\$985.85	\$854.12	\$2,661.11	\$2,304.04	\$9,011.17	\$7,781.12
	Calhoun	Willis										
582	TLHSFLXADS0 -	TLHSFLXCDS0 -	\$28.79	\$26.05	\$69.72	\$61.81	\$985.85	\$854.12	\$2,661.11	\$2,304.04	\$9,011.17	\$7,781.12
	Calhoun	Mabry	_								_	
583	TLHSFLXADS0 -	TLHSFLXEDS0 -	\$28.79	\$26.05	\$69.72	\$61.81	\$985.85	\$854.12	\$2,661.11	\$2,304.04	\$9,011.17	\$7,781.12
	Calhoun	FSU										
584	TLHSFLXADS0 -	TLHSFLXHDS0 -	\$28.79	\$26.05	\$69.72	\$61.81	\$985.85	\$854.12	\$2,661.11	\$2,304.04	\$9,011.17	\$7,781.12
	Calhoun	Perkins										
585	TLHSFLXADS0 -	TVRSFLXADS0 -	\$28.13	\$25.50	\$55.08	\$49.60	\$575.91	\$512.21	\$1,539.59	\$1,368.62	\$5,000.68	\$4,436.04
	Calhoun	Thomasville										
586	TLHSFLXBDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
<u> </u>	Willıs	Alligator Point*										
587	TLHSFLXBDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	Willis	Bristol*	_									
288	TLHSFLXBDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	Willis	Carrabelle*	_									
589	TLHSFLXBDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
<u> </u>	Willis	Chattahoochee*										
590	TLHSFLXBDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
E 0 1	Willis	Greensboro*										
DAT	TLHSFLXBDS0 -	NSN -	\$18,90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
6.00	Willis	Gretna*										
592	TLHSFLXBDSO - Willis	NSN -	\$18.49	\$16.69	\$42.49	\$37.26	\$706.44	\$605.14	\$1,914.68	\$1,639.22	NA	NA
E 0 2		Havana*	417.14					11 05 55	+0.015-55			
293	TLHSFLXBDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
L	Willıs	Hosford*		L				l		<u> </u>	L	

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STA	FF	
1	ORIGINATING	TERMINATING	I	S0	ם	s1	Ī	0\$3	0	C3	00	12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
594	TLHSFLXBDS0 -	NSN -	\$18,90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
	Willıs	Quincy*					[					
595	TLHSFLXCDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	Mabry	Allıgator Point*										
596	TLHSFLXCDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	Mabry	Bristol*										
597	TLHSFLXCDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	Mabry	Carrabelle*										
598	TLHŚFLXCDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NÁ	NA
	Mabry	Chattahoochee*										
599	TLHSFLXCDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
	Mabry	Greensboro*										
600	TLHSFLXCDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
	Mabry	Gretna*										
601	TLHSFLXCDS0 -	NSN -	\$18.49	\$16.69	\$42.49	\$37.26	\$706.44	\$605.14	\$1,914.68	\$1,639.22	NA	NA
	Mabry	Havana*										
602	TLHSFLXCDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	Mabry	Hosford*										
603	TLHSFLXCDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
	Mabry	Quincy*										
604	TLHSFLXCDS0 -	TLHSFLXBDS0 -	\$28.79	\$26.05	\$69.72	\$61.81	\$985.85	\$854.12	\$2,661.11	\$2,304.04	\$9,011.17	\$7,781.12
	Mabry	Willis										
605	TLHSFLXCDS0 -	TLHSFLXHDS0 -	\$28.79	\$26.05	\$69.72	\$61.81	\$985.85	\$854.12	\$2,661.11	\$2,304.04	\$9,011.17	\$7,781.12
	Mabry	Perkins										
606	TLHSFLXCDS0 -	TVRSFLXADS0 -	\$31.29	\$28.30	\$124.80	\$111.41	\$1,561.76	\$1,366.33	\$4,200.70	\$3,672.66	\$14,011.84	\$12,217.16
	Mabry	Thomasville										
607	TLHSFLXDDS0 -	NSN -	\$18.48	\$16.60	\$125.03	\$109.76	\$2,050.99	\$1,758.44	\$5,557.11	\$4,761.74	NA	NA
	Blairstone	Alligator Point*										
608	TLHSFLXDDS0 -	NSN -	\$18.48	\$16.60	\$125.03	\$109.76	\$2,050.99	\$1,758.44	\$5,557.11	\$4,761.74	NA	NA
	Blairstone	Bristol*										
609	TLHSFLXDDS0 -	NSN -	\$18.48	\$16.60	\$125.03	\$109.76	\$2,050.99	\$1,758.44	\$5,557.11	\$4,761.74	NA	NA
	Blairstone	Carrabelle*										
610	TLHSFLXDDS0 -	NSN -	\$18.48	\$16.60	\$125.03	\$109.76	\$2,050.99	\$1,758.44	\$5,557.11	\$4,761.74	NA	NĂ
1	Blairstone	Chattahoochee*										
611	TLHSFLXDDS0 -	NSN -	\$19.57	\$17.51	\$149.09	\$129.82	\$2,724.47	\$2,320.16	\$7,399.60	\$6,298.50	NA	NA
	Blairstone	Greensboro*			,		,	,		,		
612	TLHSFLXDDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
	Blairstone	Gretna*			,	,				,		

	APPENDIX A - DEDICATED INTEROFFICE TRANSPORT PRICE LIST - SPRINT & STAFF											
	ORIGINATING	TERMINATING	I	DS0	D	S1	I	DS3	0	C3	00	:12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
613	TLHSFLXDDS0 -	NSN -	\$19.26	\$17.25	\$142.37	\$124.22	\$2,536.58	\$2,163.45	\$6,885.57	\$5,869.76	NA	
	Blairstone	Havana*										
614	TLHSFLXDDS0 -	NSN -	\$18.48	\$16.60	\$125.03	\$109.76	\$2,050.99	\$1,758.44	\$5,557.11	\$4,761.74	NA	NA
	Blairstone	Hosford*										
615	TLHSFLXDDS0 -	NSN -	\$19.57	\$17.51	\$149.09	\$129.82	\$2,724.47	\$2,320.16	\$7,399.60	\$6,298.50	NA	NA
	Blairstone	Quincy*										
616	TLHSFLXDDS0 -	TLHSFLXADS0 -	\$29.14	\$26.35	\$77.48	\$68.28	\$1,203.03	\$1,035.26	\$3,255.25	\$2,799.59	\$11,135.77	\$9,553.21
	Blairstone	Calhoun									,	
617	TLHSFLXDDS0 -	TLHSFLXBDS0 -	\$29.14	\$26.35	\$77.48	\$68.28	\$1,203.03	\$1,035.26	\$3,255.25	\$2,799.59	\$11,135.77	\$9,553.21
	Blairstone	Willis									,,	
618	TLHSFLXDDS0 -	TLHSFLXCDS0 -	\$32.30	\$29.15	\$147.20	\$130.09	\$2,188.88	\$1,889.38	\$5,916.36	\$5,103.63	\$20,146.94	\$17,334.33
	Blairstone	Mabry								. ,		
619	TLHSFLXDDS0 -	TLHSFLXEDS0 -	\$32.30	\$29.15	\$147.20	\$130.09	\$2,188.88	\$1,889.38	\$5,916.36	\$5,103.63	\$20,146,94	\$17,334.33
	Blairstone	FSU										,
620	TLHSFLXDDS0 -	TLHSFLXHDS0 -	\$32.30	\$29.15	\$147.20	\$130.09	\$2,188.88	\$1,889.38	\$5,916.36	\$5,103.63	\$20,146.94	\$17,334.33
	Blairstone	Perkins							,	,	,,	
621	TLHSFLXDDS0 -	TVRSFLXADS0 -	\$31.64	\$28.59	\$132.56	\$117.88	\$1,778.93	\$1,547.46	\$4,794.84	\$4,168.21	\$16,136.45	\$13,989.25
	Blairstone	Thomasville									+===,======	410,505120
622	TLHSFLXEDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835,23	NA	NA
	FSU	Allıgator Point								, _ ,		
623	TLHSFLXEDSO -	NSN -	\$17.11	\$15,46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835,23	NA	NA
	FSU	Bristol*						,		, _,		
624	TLHSFLXEDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835,23	NA	NA
	FSU	Carrabelle*								, _,		
625	TLHSFLXEDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	FSU	Chattahoochee*							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1 + 2,000.20		N/1
626	TLHSFLXEDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
	FSU	Greensboro*				,		+ / 02100	+2,120111	+2,001.00		NA
627	TLHSFLXEDS0 -	NSN -	\$17.54	\$15.81	\$104.28	\$92.46	\$1,470,24	\$1,274.06	\$3,968.30	\$3,436,57	NA	NA
	FSU	Gretna*	1					+ = / = / = / = 0 0	40,000.00	40,100.07		NA NA
628	TLHSFLXEDS0 -	NSN -	\$18.49	\$16.69	\$42.49	\$37.26	\$706.44	\$605.14	\$1,914.68	\$1 639 22	NA	NA
	FSU	Havana*			,	10.120	7,00,11	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	+1,513.00	++,055.22	NA	NA
629	TLHSFLXEDSO -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	FSU	Hosford*	I		,	+01.01	12,200.70	1 1,003.20	+5,211.55	42,000.20	NA	NA
630	TLHSFLXEDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
	FSU	Quincy*			+	Ţ.2.00	¥054.00	, , or . oo	¥2,720.71	\$2,001.95	NA	NA
631	TLHSFLXEDS0 -	TLHSFLXBDS0 -	\$28.79	\$26.05	\$69.72	\$61.81	\$985.85	\$854.12	\$2,661.11	52 304 04	\$9,011.17	\$7,781.12
	FSU	Willıs		,	+ 0 J . / L	401.01	<i>\$203.03</i>	9034.12	<i>92,001.11</i>	92,304.04	49,011.17	Υ1, 101.1Z

		APPENDIX A - DI	EDICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STA	FF	
	ORIGINATING	TERMINATING		oso	E	S1	I	DS3	0	СЗ	00	:12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
632	TLHSFLXEDSÖ -	TLHSFLXCDS0 -	\$28.79	\$26.05	\$69.72	\$61.81	\$985.85	\$854.12	\$2,661.11	\$2,304.04	\$9,011.17	\$7,781.12
	FSU	Mabry										
633	TLHSFLXEDS0 -	TLHSFLXHDS0 -	\$28.79	\$26.05	\$69.72	\$61.81	\$985.85	\$854.12	\$2,661.11	\$2,304.04	\$9,011.17	\$7,781.12
	FSU	Perkins										
634	TLHSFLXEDS0 -	TVRSFLXADSO -	\$31.29	\$28.30	\$124.80	\$111.41	\$1,561.76	\$1,366.33	\$4,200.70	\$3,672.66	\$14,011.84	\$12,217.16
	FSU	Thomasville									· ·	
635	TLHSFLXFDS0 -	NSN -	\$16.45	\$14.91	\$80.22	\$72,40	\$796.76	\$712.34	\$2,125.81	\$1,899.82	NA	NA
	Thomasville	Alligator Point*										
636	TLHSFLXFDS0 -	NSN -	\$16.45	\$14.91	\$80.22	\$72.40	\$796.76	\$712.34	\$2,125.81	\$1,899.82	NA	NA
	Thomasville	Bristol*										
637	TLHSFLXFDS0 -	NSN -	\$16.45	\$14.91	\$80.22	\$72.40	\$796.76	\$712.34	\$2,125.81	\$1,899.82	NA	NA
	Thomasville	Carrabelle*										
638	TLHSFLXFDS0 -	NSN -	\$16.45	\$14.91	\$80.22	\$72.40	\$796.76	\$712.34	\$2,125.81	\$1,899.82	NA	NA
	Thomasville	Chattahoochee*										
639	TLHSFLXFDS0 -	NSN -	\$17.54	\$15.81	\$104.28	\$92.46	\$1,470.24	\$1,274.06	\$3,968.30	\$3,436.57	NA	NA
	Thomasville	Greensboro*										
640	TLHSFLXFDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
	Thomasville	Gretna*										
641	TLHSFLXFDS0 -	NSN -	\$17.24	\$15.56	\$97.57	\$86.86	\$1,282.35	\$1,117.35	\$3,454.27	\$3,007.84	NA	NA
	Thomasville	Havana*										
642	TLHSFLXFDS0 -	NSN -	\$16.45	\$14.91	\$80.22	\$72.40	\$796.76	\$712.34	\$2,125.81	\$1,899.82	NA	NA
	Thomasville	Hosford*										
643	TLHSFLXFDS0 -	NSN -	\$17.54	\$15.81	\$104.28	\$92,46	\$1,470.24	\$1,274.06	\$3,968.30	\$3,436.57	NA	NA
	Thomasville	Quincy*										
644	TLHSFLXFDS0 -	TLHSFLXBDS0 -	\$31.29	\$28.30	\$124.80	\$111.41	\$1,561.76	\$1,366.33	\$4,200.70	\$3,672.66	\$14,011.84	\$12,217.16
	Thomasville	Willis										
645	TLHSFLXHDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	Perkins	Alligator Point*										
646	TLHSFLXHDSO -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	Perkins	Bristol*										
647	TLHSFLXHDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835,23	NA	NA
	Perkins	Carrabelle*										
648	TLHSFLXHDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	Perkins	Chattahoochee*										
649	TLHSFLXHDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NĂ
	Perkins	Greensboro*										
650	TLHSFLXHDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NÄ
	Perkins	Gretna*										

	APPENDIX A - DEDICATED INTEROFFICE TRANSPORT PRICE LIST - SPRINT & STAFF											
	ORIGINATING	TERMINATING	L	DS0	D	S1		DS3	0	C3	00	:12
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.
651	TLHSFLXHDS0 -	NSN -	\$18,49	\$16.69	\$42.49	\$37.26	\$706.44	\$605.14	\$1,914.68	\$1,639.22	NA	NA
	Perkins	Havana*										
652	TLHSFLXHDS0 -	NSN -	\$17.11	\$15.46	\$94.86	\$84.61	\$1,206.70	\$1,054.26	\$3,247.33	\$2,835.23	NA	NA
	Perkins	Hosford*	_									
653	TLHSFLXHDS0 -	NSN -	\$18.90	\$17.04	\$49.20	\$42.86	\$894.33	\$761.86	\$2,428.71	\$2,067.95	NA	NA
	Perkins	Quincy*										
654	TLHSFLXHDS0 -	TLHSFLXBDS0 -	\$28.79	\$26.05	\$69.72	\$61.81	\$985.85	\$854.12	\$2,661.11	\$2,304.04	\$9,011.17	\$7,781.12
	Perkins	Willis		_								
655	TLHSFLXHDS0 -	TVRSFLXADS0 -	\$31.29	\$28.30	\$124.80	\$111.41	\$1,561.76	\$1,366.33	\$4,200.70	\$3,672.66	\$14,011.84	\$12,217.16
	Perkins	Thomasville								L		
656	TVRSFLXADSO -	UMTLFLXARS0 -	\$34.39	\$30.89	\$193.32	\$168.54	\$3,479.72	\$2,966.01	\$9,447.79	\$8,049.07	NA	NA
	Tavares	Umatılla										
657	WCHLFLXADS0 -	ZLSPFLXARS0 -	\$38.54	\$34.18	\$284.88	\$241.19	\$7,008.14	\$5,877.04	\$19,136.71	\$16,045.73	\$67,927.20	\$56,921.88
	Wauchula	Zolfo Springs										
658	WLSTFLXARSO -	NSN -	\$22.08	\$19.92	\$100.36	\$89.19	\$1,360.43	\$1,182.48	NA	NA	NA	NA
	Williston	Bronson*										
659	WNDRFLXARS0 -	NSN -	\$21.23	\$18.89	\$185.79	\$160.42	\$3,751.78	\$3,176.99	\$10,210.07	\$8,642.60	NA	NA
	Windermere	Celebration*										
660	WNDRFLXARSO -	NSN -	\$21.54	\$19.15	\$192.59	\$166.09	\$3,942.11	\$3,335.74	\$10,730.77	\$9,076.90	\$37,615.51	\$31,772.00
	Windermere	East Orange*		[								
661	WNDRFLXARSO -	NSN -	\$21.23	\$18.89	\$185.79	\$160.42	\$3,751.78	\$3,176.99	\$10,210.07	\$8,642.60	NÄ	NA
	Windermere	Lake Buena Vista*										
662	WNDRFLXARSO -	NSN -	\$21.54	\$19.15	\$192.59	\$166.09	\$3,942.11	\$3,335.74	\$10,730.77	\$9,076.90	\$37,615.51	\$31,772.00
	Windermere	Orlando*	_									
663	WNDRFLXARSO -	WNGRFLXADS0 -	\$32.31	\$28.99	\$147.48	\$126.64	\$3,162.47	\$2,669.54	\$8,615.82	\$7,270.65	\$30,304.97	\$25,541.88
	Windermere	Winter Garden									1	
664	WNDRFLXARSO -	WNPKFLXADS1 -	\$32.31	\$28.99	\$147,48	\$126.64	\$3,162.47	\$2,669.54	\$8,615.82	\$7,270.65	\$30,304.97	\$25,541.88
	Windermere	Winter Park										
665	WNGRFLXADSO -	NSN -	\$21.23	\$18.89	\$185.79	\$160.42	\$3,751.78	\$3,176.99	\$10,210.07	\$8,642.60	NA	NA
	Winter Garden	Celebration*										
666	WNGRFLXADS0 -	NSN -	\$21.24	\$18.90	\$186.05	\$160.64	\$3,759.10	\$3,183.10	\$10,230.09	\$8,659.31	\$35,825.11	\$30,278.66
	Winter Garden	East Orange*									ĺ	
667	WNGRFLXADS0 -	NSN -	\$20.46	\$18.25	\$168.88	\$146.32	\$3,278.39	\$2,782.16	\$8,914.98	\$7,562.42	\$31,122.33	\$26,356.16
	Winter Garden	Lake Buena Vista*										
668	WNGRFLXADSO -	NSN -	\$21.24	\$18.90	\$186.05	\$160.64	\$3,759.10	\$3,183.10	\$10,230.09	\$8,659.31	\$35,825.11	\$30,278.66
	Winter Garden	Orlando*										
669	WNGRFLXADS0 -	WNPKFLXADS1 -	\$32.02	\$28.74	\$140.95	\$121.19	\$2,979.45	\$2,516.90	\$8,115.15	\$6,853.05	\$28,514.57	\$24,048.54
L	Winter Garden	Winter Park										

		APPENDIX A - DE	DICATE	D INTE	ROFFICE	TRANSI	PORT PRI	CE LIST	- SPRIN	T & STA	FF		
	ORIGINATING	TERMINATING		DSO		DS1		DS3		0C3		OC12	
			Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	Sprint	Staff	
			Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	Prop.	Recom.	
670	WNPKFLXADS1 -	NSN -	\$21.23	\$18.89	\$185.79	\$160.42	\$3,751.78	\$3,176.99	\$10,210.07	\$8,642.60	NA	NA	
	Winter Park	Celebration*											
671	WNPKFLXADS1 -	NSN -	\$21.25	\$19.08	\$186.29	\$164.52	\$2,800.15	\$2,415.15	\$7,570.68	\$6,525.69	NA	NA	
	Winter Park	DeBary*											
672	WNPKFLXADS1 -	NSN -	\$14.86	\$13.41	\$45.10	\$39.44	\$779.64	\$666.20	\$2,114.95	\$1,806.25	\$7,310.54	\$6,230.12	
	Winter Park	East Orange*											
673	WNPKFLXADS1 -	NSN -	\$14.86	\$13.41	\$45.10	\$39.44	\$779.64	\$666.20	\$2,114.95	\$1,806.25	\$7,310.54	\$6,230.12	
	Winter Park	Geneva*											
674	WNPKFLXADS1 -	NSN -	\$20.46	\$18.25	\$168.88	\$146.32	\$3,278.39	\$2,782.16	\$8,914.98	\$7,562.42	\$31,122.33	\$26,356.16	
	Winter Park	Lake Buena Vista*											
675	WNPKFLXADS1 -	NSN -	\$14.86	\$13.41	\$45.10	\$39.44	\$779.64	\$666.20	\$2,114.95	\$1,806.25	\$7,310.54	\$6,230.12	
	Winter Park	Orlando*											
676	WNPKFLXADS1 -	NSN -	\$14.86	\$13.41	\$45,10	\$39.44	\$779.64	\$666.20	\$2,114.95	\$1,806.25	\$7,310.54	\$6,230.12	
	Winter Park	Oviedo*											
678	WNPKFLXADS1 -	NSN -	\$17.70	\$16.04	\$29.94	\$26.80	\$355.06	\$312.07	\$953.38	\$837.43	NA	NA	
	Winter Park	Sanford*											
679	WSTVFLXARSO -	NSN -	\$17.95	\$16.16	\$113.43	\$100.09	\$1,726.45	\$1,487.76	\$4,669.25	\$4,021.21	NA	NA	
	Westville	Graceville*											
680	WSTVFLXARS0 -	NSN -	\$17.95	\$16.16	\$113.43	\$100.09	\$1,726.45	\$1,487.76	\$4,669.25	\$4,021.21	NA	NA	
	Westville	Vernon*											

\* Non-Sprint Terminating Office

Appendix **B** 

<b></b>		APPENDIX B - WIRE CENTERS	BY ZONE	
CLLI C	Code	Wire Center Name	Sprint	Staff
			Proposed	Recommended
ALSPFLX	ADS0	Altamonte Springs	1	1
BCGRFLX	ARS1	Boca Grande	1	1
BNSPFLX	ADS1	Bonita Springs	1	1
CPCRFLX	ADS0	Cape Coral	1	1
CSLBFLX	ADS1	Casselberry	1	1
CYLKFLX	(BRSO	Cypress Lake-Regional Airport	1	1
DESTFLX	ADS0	Destin	1	1
FTMBFLX	(ARSO	Fort Myers Beach	1	1
FTMYFLX	ADS0	Fort Myers	1	1
FTMYFLX	CDS2	Fort Myers	1	1
FTWBFLX	(ADSO	Fort Walton Beach-Hollywood	1	1
FTWBFLX	BDS0	Fort Walton Beach-Denton	1	1
FTWBFLX	(CRS0	Fort Walton Beach-Mary Esther	1	1
GLRDFLX	CADS0	Goldenrod	1	1
KSSMFLX	(DRS0	Buenaventura Lakes	1	1
LDLKFLX	KARS0	Lady Lake	1	1
LKBRFLX	ADS1	Lake Brantley	1	1
MTLDFLX	KADS1	Maitland	1	1
NNPLFLX	KADS1	North Naples	1	1
NPLSFLX	KDDS0	Naples	1	1
OCALFLX	(CRSO	Highlands	1	1
ORCYFLX	KADS0	Orange City	1	1
SHLMFLX	KADS0	Shalimar	1	1
TLHSFLX	KADS0	Tallahassee-Calhoun	1	1
TLHSFLX	(BDS0	Tallahassee-Willis	1	1
TLHSFLX	KDDS0	Tallahassee- Blairstone	1	1
TLHSFLX	KERS0	Tallahassee-FSU	1	1
VLPRFLX	(ADS0	Valparaiso	1	1
VLPRFLX	(BRS0	Valparaiso-Seminole	1	1
WNDRFLX	(ARSO	Windermere	1	1
WNGRFLX	(ADS0	Winter Garden	1	1
WNPKFLX	KADS1	Winter Park	1	1
APPKFLX	KADS1	Apopka	1	2
CLMTFLX	(ADS0	Clermont	1	2
CPCRFLX	KBDS1	North Cape Coral	1	2
		Kissimmee	1	2
KSSMFLX	KBDS1	Reedy Creek	1	2
		Leesburg	1	2
		Marco Island	1	2

APPENDIX B - WIRE CENTERS BY ZONE								
CLLI	Code	Wire Center Name	Sprint	Staff				
			Proposed	Recommended				
NFMYFI	XADSO	North Fort Myers	1	2				
NPLSFI	XCDSO	Naples	1	2				
OCALFI	XADSO	Ocala	1	2				
ORCYFI	XCRSO	Orange City	1	2				
TLHSFI	XCDS0	Tallahassee-Mabry	1	2				
TLHSFI	XHDSO	Tallahassee-Perkins	1	2				
BLVWFI	XADSO	Belleview	2	2				
BVHLFI	XADSO	Beverly Hills	2	2				
CHSWFI	XARSO	Chassahowitzka-Homosassa Spr.	2	2				
CRVWFI	XADSO	Crestview	2	2				
CYLKFI	XADSO	Cypress Lake	2	2				
FTMYFI	XBRSO	Fort Myers	2	2				
GLGCFI	XADSO	Golden Gate	2	2				
KSSMFI	XCRS1	Kissimmee	2	2				
MTDRFI	XARSO	Mount Dora	2	2				
NFMYFI	XBRSO	North Fort Myers	2	2				
OCALFI			2	2				
PTCTFL	XADSO	Port Charlotte	2	2				
SNISFI	XADS0	Sanibel-Captiva Islands	2	2				
		Silver Springs Shores	2	2				
TLHSFI	XFDS0	Tallahassee-Thomasville	2	2				
TVRSFI	XADS0	Tavares	2	2				
AVPKFI	XADS0	Avon Park	2	3				
CPHZFI	XADS0	Cape Haze	2	3				
		Crystal River	2	3				
		Dade City	2	3				
		Eustis	2	3				
FTMDFI	XARSO	Fort Meade	2	3				
HMSPFI	XARSO	Homosassa Springs	2	3				
HOWYFI	XARSO	Howey-in-the-Hills	2	3				
		Inverness	2	3				
LHACFI	XADS0	Lehigh Acres	2	3				
		Lake Helen-Orange City	2	3				
		Marianna	2	3				
MTVRFI	XARSO	Montverde	2	3				
		Punta Gorda	2	3				
		Pine Island	2	3				
		Sebring	2	3				
		Seagrove Beach	2	3				

	APPENDIX B - WIRE CENTERS BY ZONE								
CLLI Code	e Wire Center Name	Sprint	Staff						
		Proposed	Recommended						
SNRSFLXARS	50 Santa Rosa Beach	2	3						
STCDFLXARS	50 St. Cloud	2	3						
SVSPFLXARS	50 Silver Springs-Ocala	2	3						
GVLDFLXARS	50 Groveland	2	4						
SNANFLXARS	50 San Antonio	2	4						
STRKFLXADS	50 Starke	2	4						
WCHLFLXADS	50 Wauchula	2	4						
ALFRFLXARS	50 Alford	3	4						
ALVAFLXARS	51 Alva	3	4						
ARCDFLXAD	50 Arcadia	3	4						
ASTRFLXAR	50 Astor	3	4						
BAKRFLXAD	50 Baker	3	4						
BNFYFLXARS	SO Bonifay	3	4						
BSHNFLXAD	S0 Bushnell	3	4						
BWLGFLXARS	SO Bowling Green	3	4						
CFVLFLXAD	50 Crawfordville	3	4						
CHLKFLXAR	SO Cherry Lake	3	4						
CLTNFLXARS	50 Clewiston	3	4						
CTDLFLXAR	SO Cottondale	3	4						
DFSPFLXAD:	50 DeFuniak Springs	3	4						
	S1 Everglades	3	4						
FRPTFLXARS	50 Freeport	3	4						
GDRGFLXAD	SO Grand Ridge	3	4						
GLDLFLXAR	S0 Glendale	3	4						
GNVLFLXAR	SO Greenville	3	4						
GNWDFLXAR	S0 Greenwood	3	4						
IMKLFLXAR	SO Immokalee	3	4						
KGLKFLXAR	SO Kingsley Lake	3	4						
	SO Kenansville	3	4						
LBLLFLXAD	SO LaBelle	3	4						
LEE FLXARS	SO Lee	3	4						
LKPCFLXAR:	SO Lake Placid	3	4						
LWTYFLXARS	SO Lawtey	3	4						
MALNFLXAR	S0 Malone	3	4						
MDSNFLXAD	SO Madison	3	4						
MNTIFLXAD	SO Monticello	3	4						
MRHNFLXAR	SO Moore Haven	3	4						
OCNFFLXAR		3	4						
	S1 Okeechobee	3	4						

	APPENDIX B - WIRE CENTERS	BY ZONE	· · · · · · · · · · · · · · · · · · ·
CLLI Code	Wire Center Name	Sprint	Staff
		Proposed	Recommended
OKLWFLXADSO	Ocklawaha	3	4
PANCFLXARSO	Panacea	3	4
	Ponce de Leon	3	4
RYHLFLXARSO	Reynolds Hill	3	4
SLHLFLXARSO	Spring Lake	3	4
SNDSFLXARSO	Sneads	3	4
SPCPFLXARLO	Sopchoppy	3	4
SSPRFLXARSO	Salt Springs	3	4
STMKFLXARSO	St. Marks	3	4
TLCHFLXARSO	Trilacoochee	3	4
TLHSFLXGRSO	Tallahassee-Woodville	3	4
UMTLFLXARSO	Umatilla	3	4
WLSTFLXARSO	Williston	3	4
WLWDFLXARSO	Wildwood	3	4
WSTVFLXARSO		3	4
ZLSPFLXARSO	Zolfo Springs	3	4