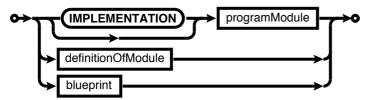
# **Appendix B: Syntax Diagrams**

# **B.1 Non-Terminal Symbols**

### **#1 Compilation Unit**



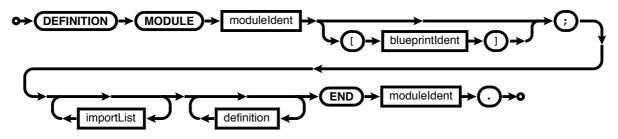
### #2 Program Module



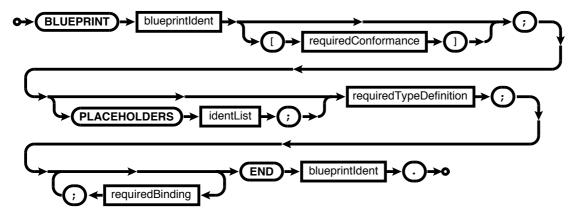
### #2.1 Module Identifier



### **#3 Definition Of Module**



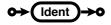
## #4 Blueprint



# #4.1 Blueprint Identifier

**#4.2 Required Conformance** 

#4.3 Required Binding



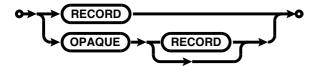
**→** blueprintIdent →

◆ procedureHeader →

# **#5 Required Type Definition**



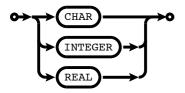
## **#6 Permitted Type Definition**



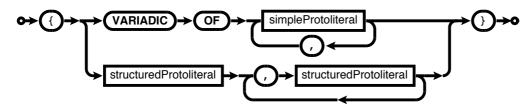
## #7 Proto-Literal



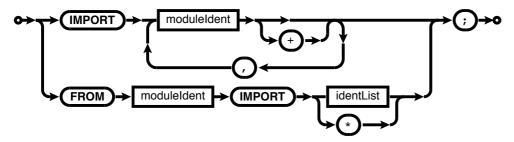
## **#7.1 Simple Proto-Literal**



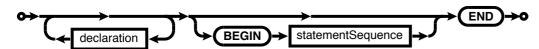
## **#8 Structured Proto-Literal**



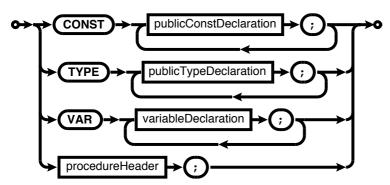
## **#9 Import List**



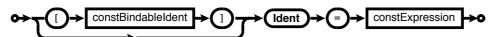
## #10 Block



### #11 Definition

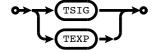


### **#12 Public Constant Declaration**



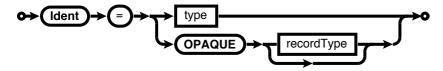
## **#12.1 CONST Bindable Identifier**

### **#12.2 Constant Expression**

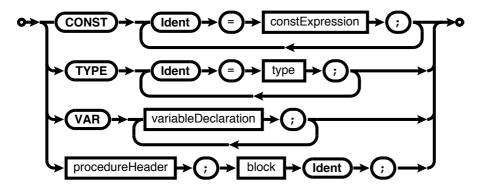




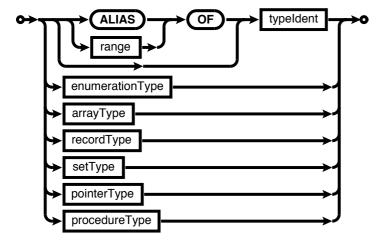
## **#13 Public Type Declaration**



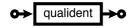
## **#14 Declaration**



## #15 Type



## #15.1 Type Identifier



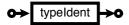
### #16 Range



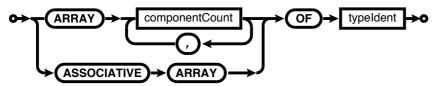
### **#17 Enumeration Type**



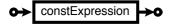
## #17.1 Enumeration Base Type



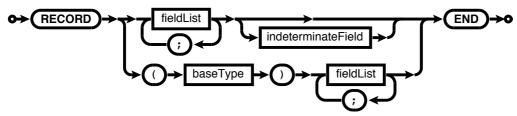
### #18 Array Type



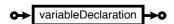
## **#18.1 Component Count**



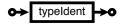
## **#19 Record Type**



### #19.1 Field List



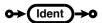
### #19.2 Base Type



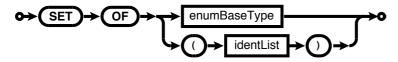
#### #20 Indeterminate Field



### #20.1 Discriminant Field



## #21 Set Type



## **#22 Pointer Type**



## **#23 Procedure Type**



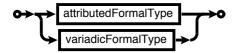
## #23.1 Returned Type



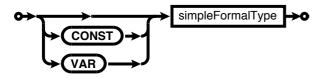
# **#24 Formal Type List**



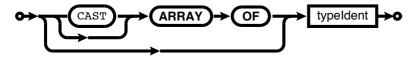
## #25 Formal Type



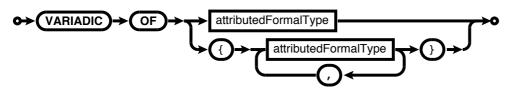
## #26 Attributed Formal Type



## #27 Simple Formal Type



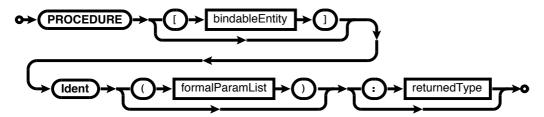
## #28 Variadic Formal Type



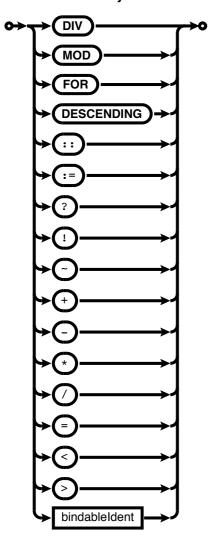
#### #29 Variable Declaration



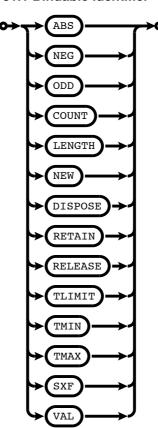
## #30 Procedure Header



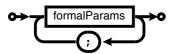
## #31 Bindable Entity



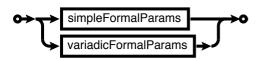
## #31.1 Bindable Identifier



## **#32 Formal Parameter List**



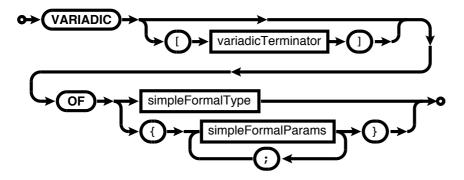
# **#33 Formal Parameters**



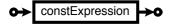
## **#34 Simple Formal Parameters**



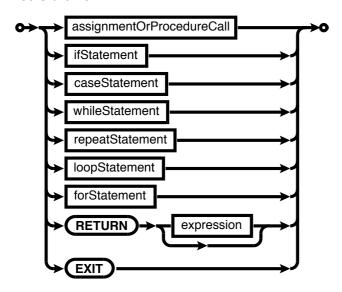
### **#35 Variadic Formal Parameters**



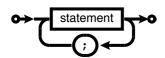
## #35.1 Variadic Terminator



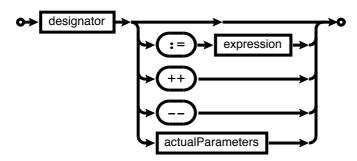
### #36 Statement



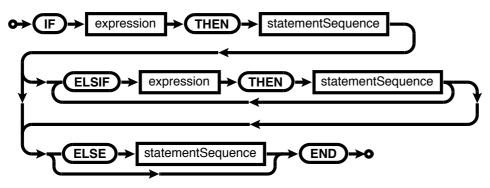
## #37 StatementSequence



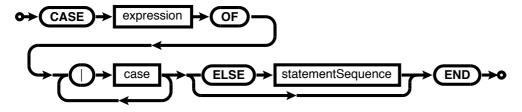
## #38 Assignment Or Procedure Call



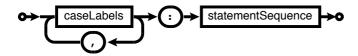
## #39 IF Statement



### #40 CASE Statement



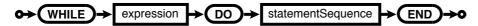
## #41 Case



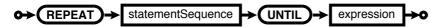
#### #42 Case Labels



## **#43 WHILE Statement**



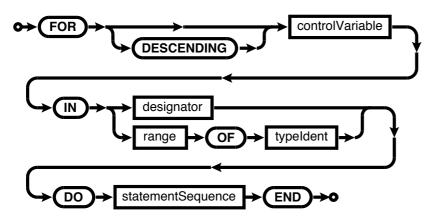
### **#44 REPEAT Statement**



### #45 LOOP Statement



## #46 FOR Statement



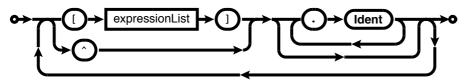
## #46.1 Control Variable



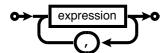
## #47 Designator



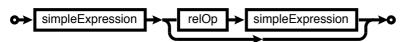
## #48 Designator Tail



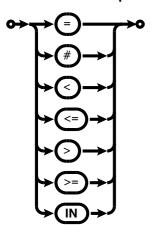
## **#49 Expression List**



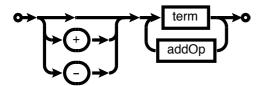
## #50 Expression



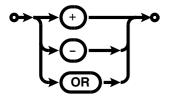
## #50.1 Relational Operator



## **#51 Simple Expression**



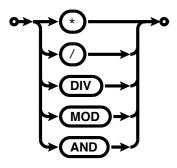
#51.1 Add Operator



#52 Term



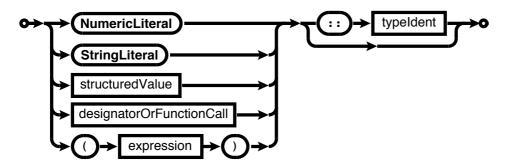
**#52.1 Multiply Operator** 



## **#53 Factor Or Negation**



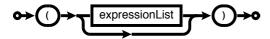
## #54 Factor



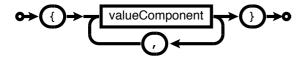
## **#55 Designator Or Function Call**



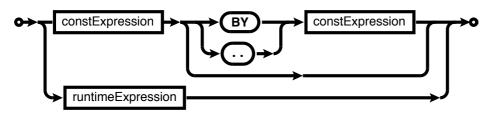
## **#56 Actual Parameters**



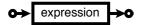
### **#57 Structured Value**



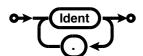
## **#58 Value Component**



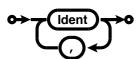
# **#58.1 Runtime Expression**



## **#59 Qualified Identifier**

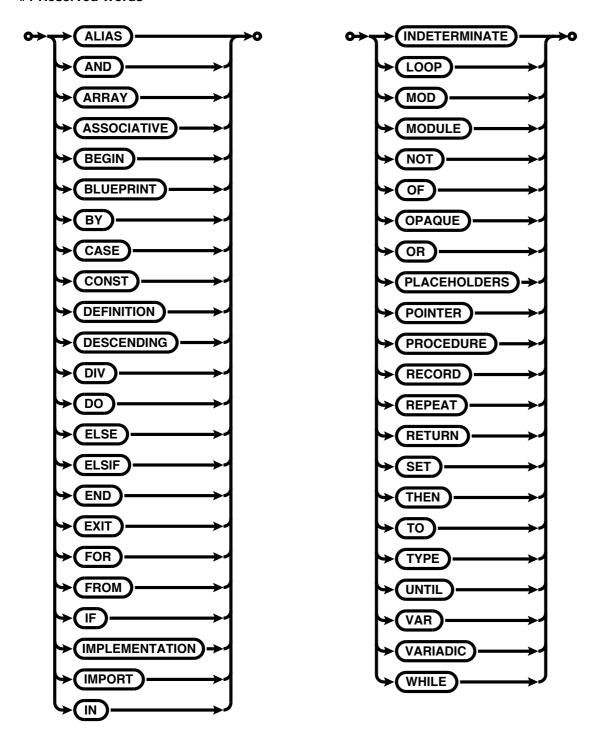


## #60 Identifier List



# **B.2 Terminal Symbols**

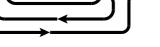
### **#1 Reserved Words**



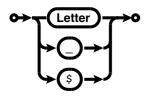
## #2 Identifier



## #2.1 Identifier Leading Character

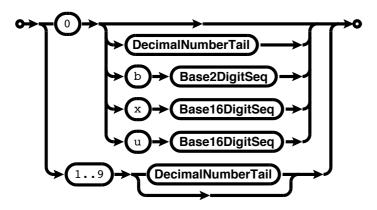


#2.2 Identifier Tail Character

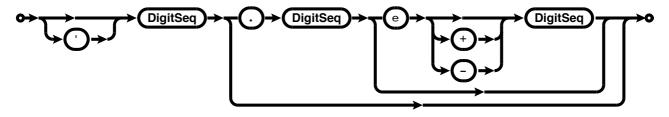




## **#3 Numeric Literal**



### #3.1 Decimal Number Tail



#3.2 Digit Sequence



#3.2b Digit Group



#3.3 Base-2 Digit Sequence #3.3b Base-2 Digit Group





#3.4 Base-16 Digit Sequence



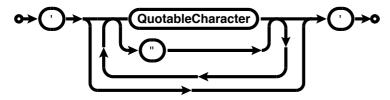
#3.4b Base-16 Digit Group



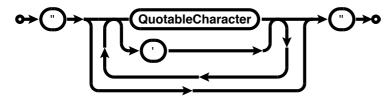
## #4 String Literal



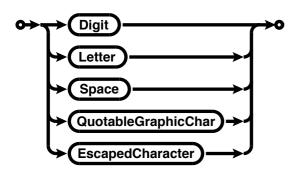
## #4.1 Single Quoted String



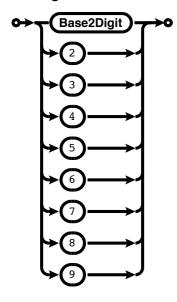
### #4.2 Double Quoted String



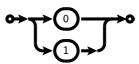
### #4.3 Quotable Character



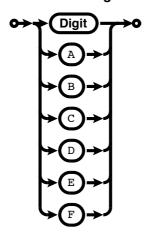




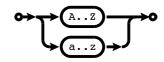
#4.5 Base-2 Digit



#4.6 Base-16 Digit



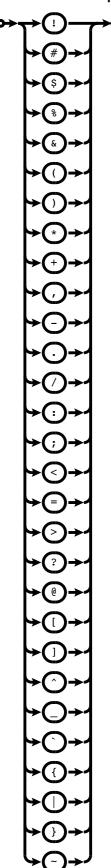
#4.7 Letter



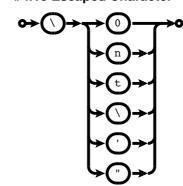
#4.8 Space

CONST Space = CHR(32)

#4.9 Quotable Graphic Character



#4.10 Escaped Character



# **B.3 Ignore Symbols**

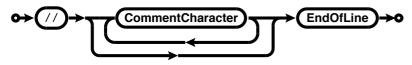
## **#1 Whitespace**



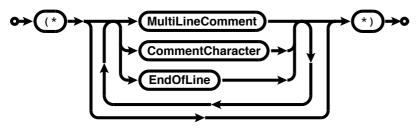
### **#1.1 ASCII Tabulator**

CONST ASCII\_TAB = CHR(8)

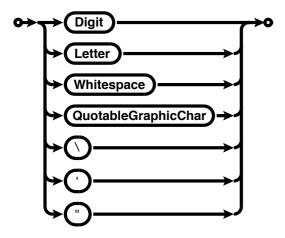
## **#2 Single-line Comment**



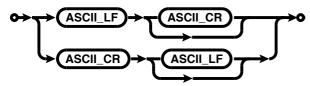
## **#3 Multi-line Comment**



### #3.1 Comment Character



## #4 End Of Line Marker



#### #4.1 ASCII Line Feed

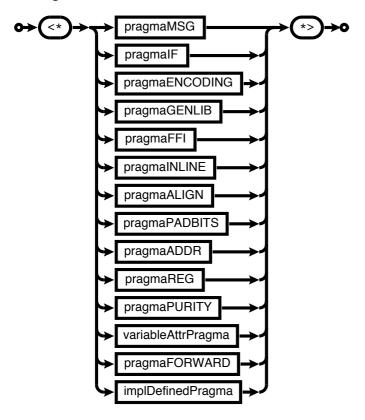
CONST ASCII LF = CHR(10)

## #4.2 ASCII Carriage Return

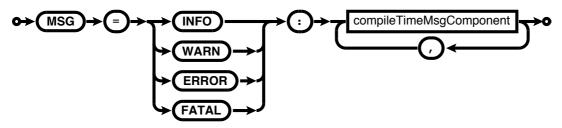
CONST ASCII\_CR = CHR(13)

# **B.4 Pragma Grammar**

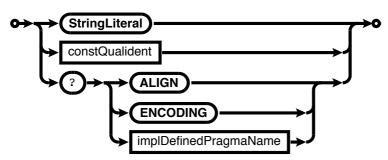
### #1 Pragma



## #2 Body Of Compile Time Message Pragma



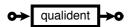
## **#3 Compile Time Message Component**



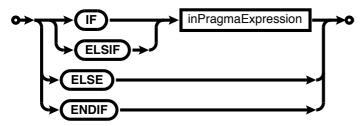
#3.1 Constant Qualified Identifier

o→ (Ident)→o

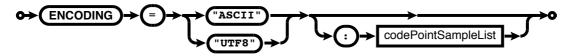
#3.2 Implementation Defined Pragma Name



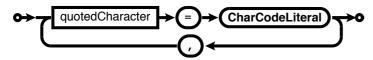
### #4 Body Of Conditional Compilation Pragma



## **#5 Body Of Character Encoding Pragma**



## #6 Code Point Sample List



#6.1 Quoted Character

#6.2 Character Code Literal

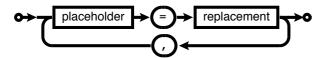




## **#7 Body Of Library Template Expansion Pragma**

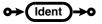


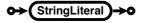
#### **#8 Template Parameter List**



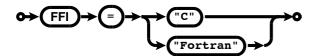
#8.1 Placeholder

#8.2 Replacement





## #9 Body Of Foreign Function Interface Pragma



## #10 Body Of Procedure Inlining Pragma



## #11 Body Of Memory Alignment Pragma



### #12 Body Of Bit Padding Pragma



## #13 Body Of Memory Mapping Pragma



## **#14 Body Of Register Mapping Pragma**



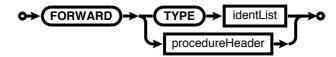
## **#15 Body Of Purity Attribute Pragma**



### #16 Body Of Variable Attribute Pragma



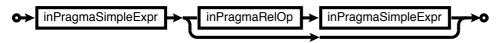
## #17 Body Of Forward Declaration Pragma



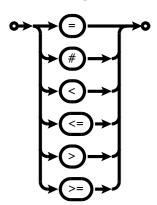
### #18 Body Of Implementation Defined Pragma



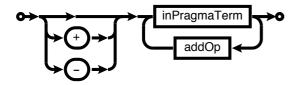
### #19 In-Pragma Expression



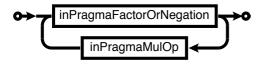
### #19.1 In-Pragma Relational Operator



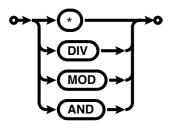
## #20 In-Pragma Simple Expression



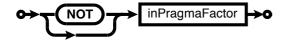
## #21 In-Pragma Term



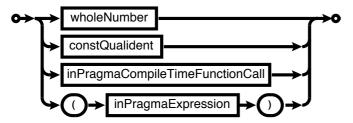
## #21.1 In-Pragma Multiply Operator



## #22 In-Pragma Factor Or Negation



## #23 In-Pragma Factor



### #23.1 Whole Number



## #24 In-Pragma Compile-Time Function Call

