

# City of Columbus

Department of Public Service  
Division of Design and Construction

## Commercial (Private Development) Sample Plan Sheets

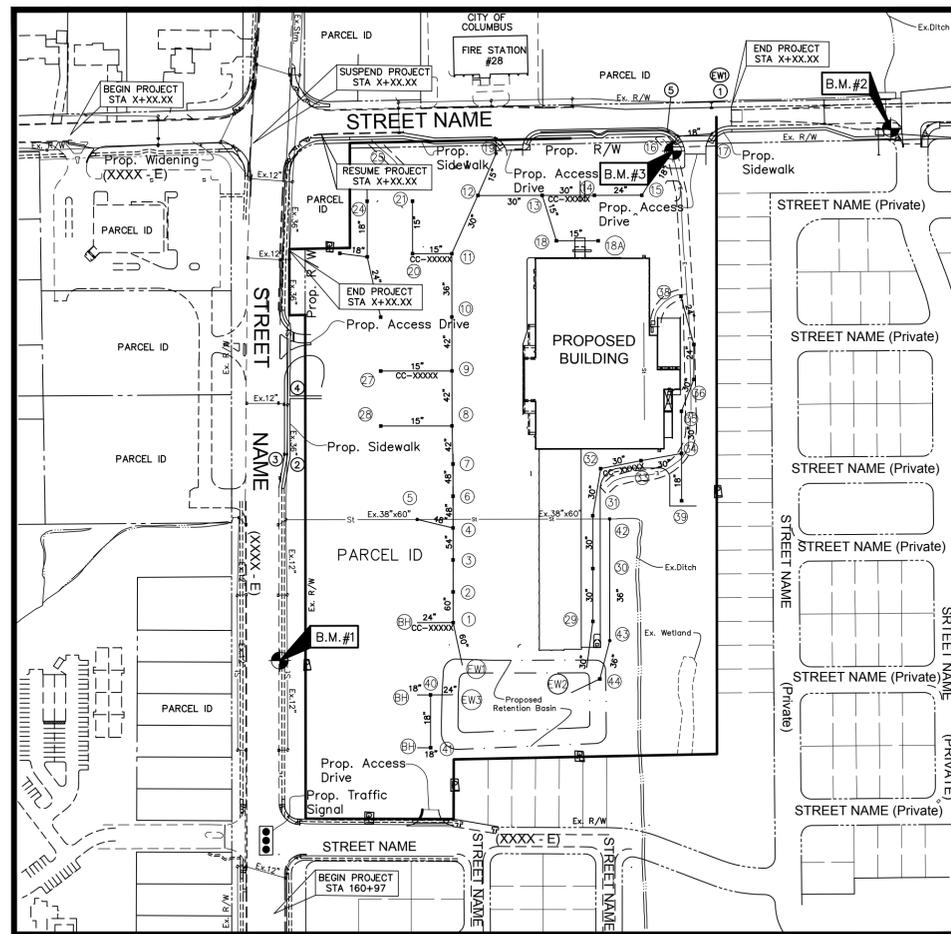


CITY OF COLUMBUS, OHIO  
 DEPARTMENT OF PUBLIC SERVICE  
 DIVISION OF DESIGN AND CONSTRUCTION

# IMPROVEMENTS OF NAME OF STREET

FROM A POINT XX' EAST OF XXXXX RD  
 TO A POINT XX' WEST OF XXXXX RD

PROJECT NAME



INDEX MAP  
SCALE:

SITE COMPLIANCE PLAN XX345-XXX  
 STORM (PRIVATE) CC#XXXXX  
 SANITARY (PRIVATE) CC#XXXXX  
 WATER SERVICE WSP#XXXXX

### ZONING

Development Name: NAME  
 Zoning Case Number: Zxx-xxx  
 Zoning Address: ADDRESS  
 City Council Ordinance Number: xxxxx-xxxxx

ODOT STANDARD CONSTRUCTION DRAWINGS	COLUMBUS STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS
MT-35.10 x/x/xx	1441 x/x/xx AA-S102	SS-1551 x/x/xx
MT-95.41 x/x/xx	2000 x/x/xx AA-S107	SS-1630 x/x/xx
MT-101.70 x/x/xx	2203 x/x/xx AA-S133	
	2300 x/x/xx AA-S120	
	2319 x/x/xx	



Drawer Number to be placed on every plan sheet. Assigned by City of Columbus Division of Design and Construction. Text height = 0.24" Style = Arial (Bold)

Either for Page Numbering Style

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74

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### INDEX OF SHEETS

(Information and/or sheets in the plan shall be located in order indicated.)

TITLE SHEET	_____	#
TYPICAL SECTIONS	_____	#
GENERAL NOTES	_____	#
ESTIMATE OF QUANTITIES	_____	#
MAINTENANCE OF TRAFFIC (NOTES AND PLAN DETAILS)	_____	#
STORM WATER POLLUTION PREVENTION PLAN	_____	#
DEMOLITION PLAN	_____	#
PLAN & PROFILE (STREETS)	_____	#
CROSS SECTIONS (NEW STREETS OR WIDENING EXISTING STREET)	_____	#
DETAILS	_____	#
STORM SEWER PROFILES	_____	#
SURVEY COORDINATE DATA - STORM AND WATER	_____	#
PAVEMENT MARKING AND SIGNING PLAN	_____	#
TRAFFIC SIGNAL & TRAFFIC SIGNAL INTERCONNECT	_____	#
LIGHTING	_____	#
LANDSCAPING	_____	#

### PROJECT DESCRIPTION

GIVE BRIEF DESCRIPTION OF RIGHT-OF-WAY IMPROVEMENT.

### OWNER

BUSINESS ENTITY NAME  
 ADDRESS CONTACT  
 PHONE EMAIL

### DEVELOPER

BUSINESS ENTITY NAME  
 ADDRESS CONTACT  
 PHONE EMAIL

### BENCH MARKS

Note: a copy of the Bench Circuit shall be included with the INITIAL submittal for plan review.

### VERTICAL CONTROL

Vertical control is set using (note the County or City certified) source monuments(s), based on the North American Vertical Datum of 1988 (NAVD 88). (Provide source data detail and correction factor.)

BENCHMARK	DESCRIPTION	NORTHING	EASTING	ELEVATION
Source Benchmark	Monument 1 Official Name, Description	#####	#####	#####
⊕ TBM #		#####	#####	#####
⊕ TBM #		#####	#####	#####
⊕ TBM #		#####	#####	#####

### HORIZONTAL CONTROL

Horizontal Controls are tied to Franklin County Survey Monuments, based on Ohio State Plane Coordinate System, South Zone, NAD 83 (2007 NSRS Adjustment). (Provide source data detail and correction factor.)

CONTROL POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
Source Monument	Monument 1 Official Name, Description	#####	#####	#####
Source Monument	Monument 2 Official Name, Description	#####	#####	#####
▲ # 1		#####	#####	#####
▲ # 2		#####	#####	#####
▲ # 3		#####	#####	#####

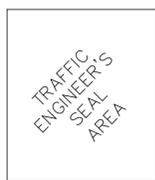
### BASIS OF BEARINGS

THE BEARINGS SHOWN HERON ARE ESTABLISHED ON THE CENTERLINE OF STREET NAME AS BEING NORTH XX' XX' XX" EAST, FROM ADJUSTED FIELD SURVEY USING G.P.S. METHODS ORIGINATED FROM MONUMENT NAME 1 AND MONUMENT NAME 2, BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE AND NORTH AMERICAN DATUM 1983 (NSRS 2007).



### ENGINEER

FIRM NAME  
 ADDRESS CONTACT  
 PHONE EMAIL

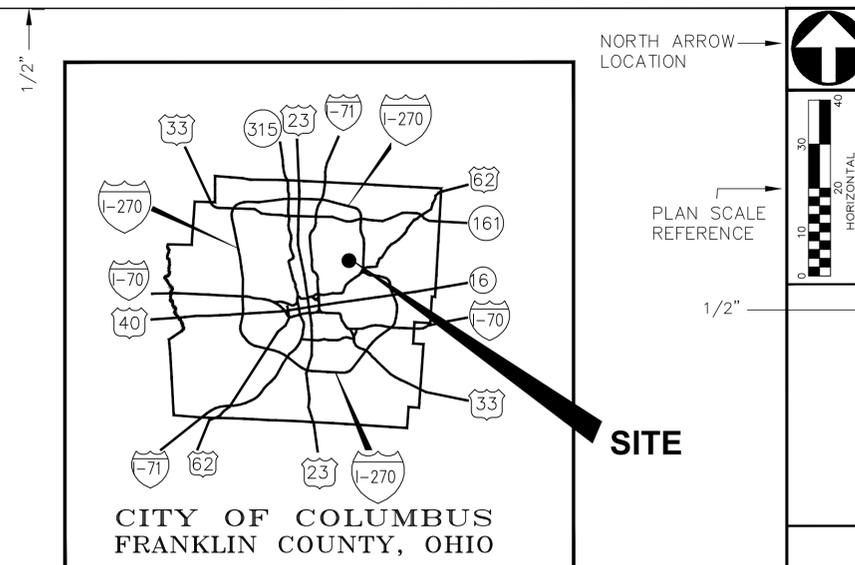


BMP Water Quality Note.

Site Earth Disturbed Area.

REGISTERED ENGINEER

DATE



LOCATION MAP

### 2018 SPECIFICATIONS

THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMSC), 2018 EDITION, INCLUDING ALL REVISIONS AND SUPPLEMENTS IN EFFECT AT THE TIME OF SIGNATURE BY THE DIRECTOR OF PUBLIC SERVICE, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THE PLANS UNLESS NOTED OTHERWISE.

### CITY OF COLUMBUS APPROVALS

CITY OF COLUMBUS SIGNATURES ON THIS PLAN SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

CITY ENGINEER/ADMINISTRATOR DIVISION OF DESIGN AND CONSTRUCTION	DATE
ADMINISTRATOR, DIVISION OF POWER	DATE
ADMINISTRATOR, DIVISION OF SEWERAGE AND DRAINAGE	DATE
ADMINISTRATOR, DIVISION OF WATER	DATE
DIRECTOR, DEPARTMENT OF RECREATION AND PARKS	DATE
FIRE PREVENTION BUREAU, DIVISION OF FIRE	DATE

REV NO	REVISION DESCRIPTION	SHEET(S)	INITIAL	DATE

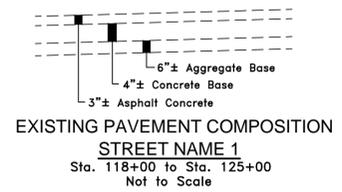
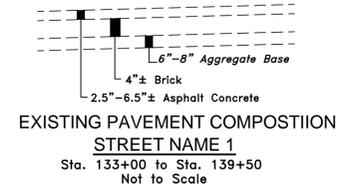
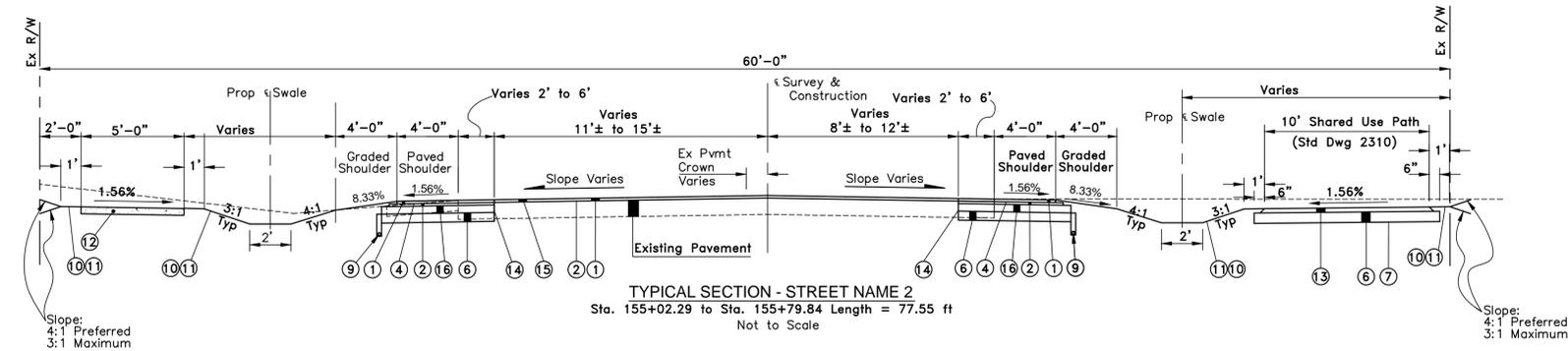
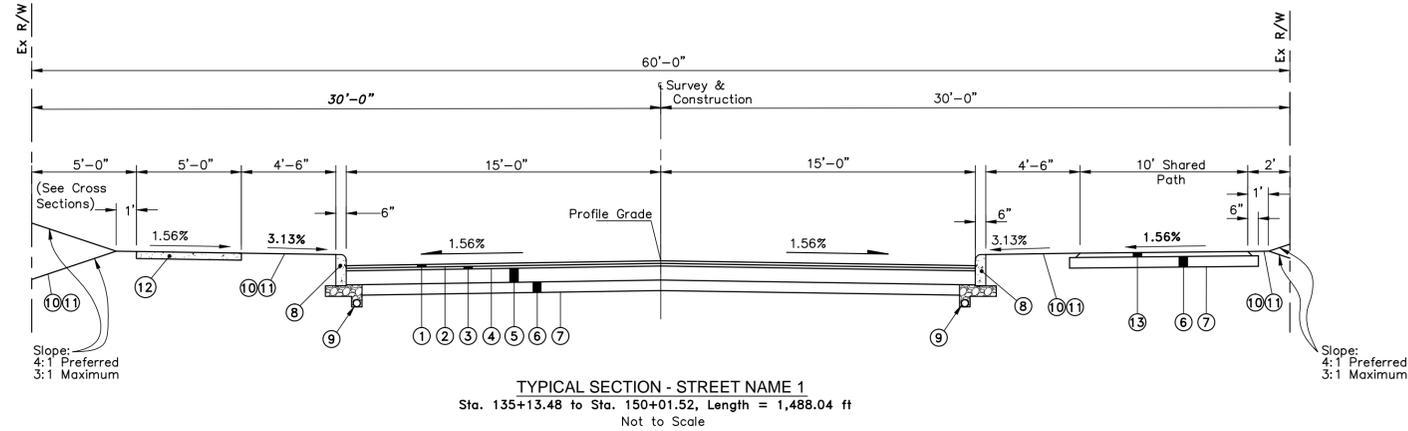
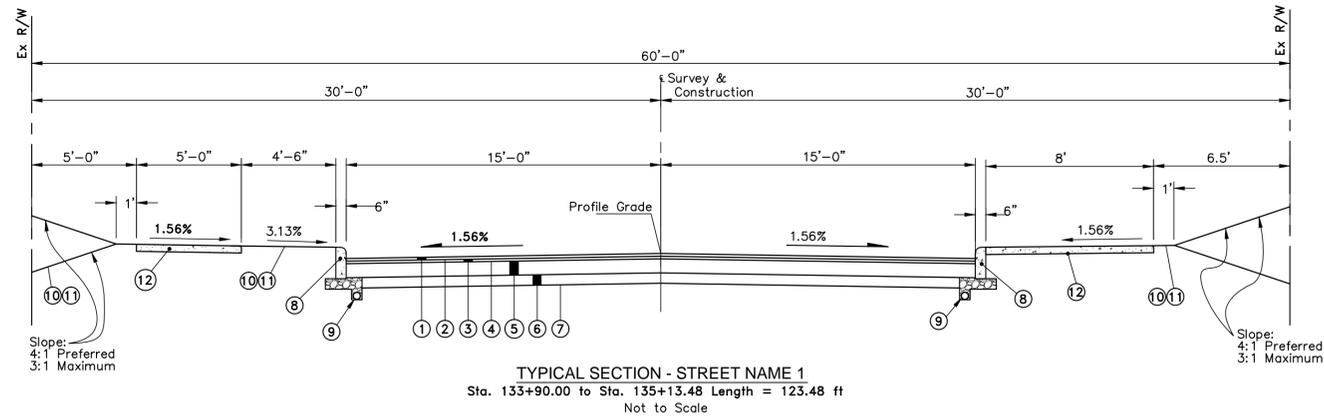
TITLE SHEET

PROJECT NAME

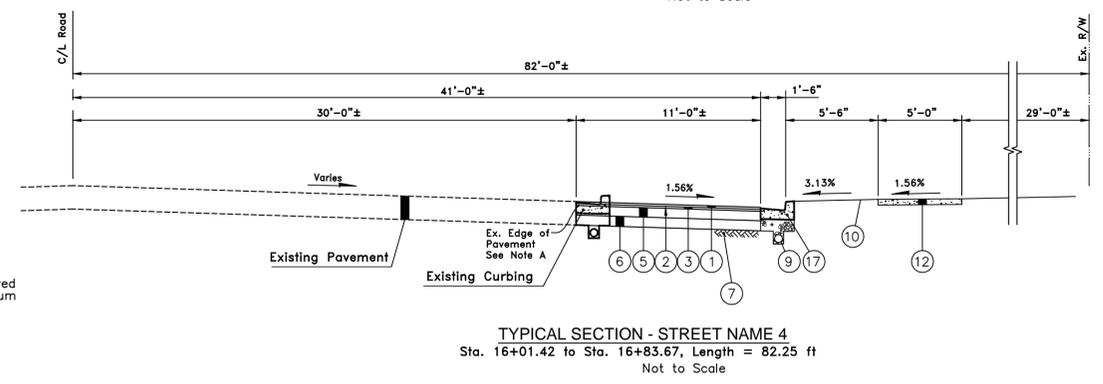
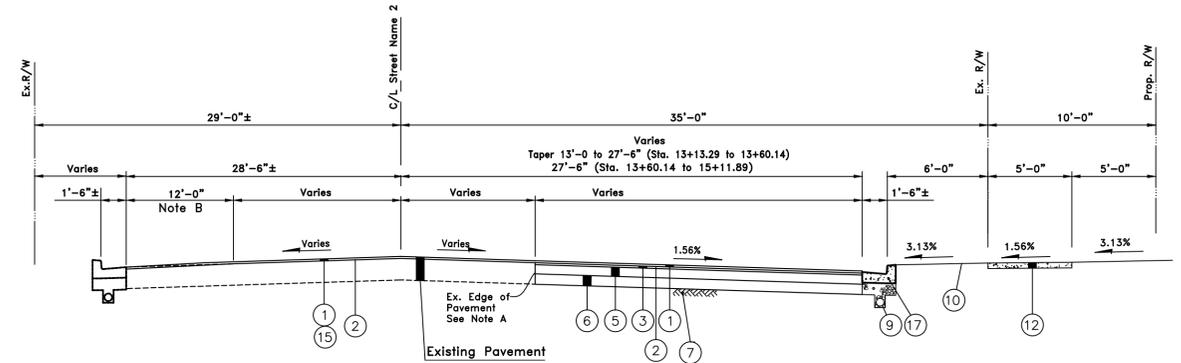
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 REVISED 1/22/19 FILE NAME, SUBMITTAL DATE



- LEGEND**
- ① Item 448 - 1.5" Asphalt Concrete Surface Course (Medium Traffic), PG64-22
  - ② Item 407 - Tack Coat
  - ③ Item 448 - 1.5" Asphalt Concrete Intermediate Course (Medium Traffic), PG64-22
  - ④ Item 407 - Tack Coat
  - ⑤ Item 305 - 8" Portland Cement Concrete Base
  - ⑥ Item 304 - 6" Aggregate Base
  - ⑦ Item 204 - Subgrade Compaction
  - ⑧ Item 609 - Curb, Straight 18"
  - ⑨ Item 605 - 4" Pipe Underdrain
  - ⑩ Item 659 - Seeding and Mulching
  - ⑪ Item 653 - Topsoil Furnished & Placed
  - ⑫ Item 608 - 4"/8" Concrete Walk
  - ⑬ Item 448 - 2.5" Surface course (Medium Traffic), PG64-22
  - ⑭ Item 202 - Saw cut pavement full depth to sound pavement
  - ⑮ Item 254 - Pavement Planing, (Varies-1-1/2" Typ.)
  - ⑯ Item 301 - 6" Asphalt Concrete Base (2 Lifts)
  - ⑰ Item 609 - Combination Curb & Gutter



**NOTES TO CONSULTANTS**

REFER TO TO CITY OF COLUMBUS STREET PAVEMENT DESIGN POLICIES AND STANDARD DRAWINGS. PAVEMENT DESIGN FOR WIDENING SHALL BE EQUAL OR GREATER THAN EXISTING PAVEMENT TO PROVIDE POSITIVE DRAINAGE OF SUBGRADE.

**Note A:**  
Existing Pavement Edge to be Sawcut as Required to Provide a Smooth Clean Edge as Directed by the Engineer. (Maintain 2'-0" Min. Widening Section)

**Note B:**  
Mill Existing Asphalt Pavement along the Existing Curb & Gutter to Provide a Minimum of 1 1/2" Depth for the Final Overlay Section.

CALCULATED  
CHECKED

TYPICAL SECTIONS & DETAILS

PROJECT NAME

XXXX-E

**PLAN NOTES - REQUIRED [PRIV DEV]**

THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMSC), 2012 EDITION INCLUDING ALL REVISIONS AND SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THE PLANS UNLESS NOTED OTHERWISE.

ANY MODIFICATION TO THE WORK AS SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE CITY ENGINEER/ADMINISTRATOR, DIVISION OF DESIGN AND CONSTRUCTION, CITY OF COLUMBUS.

APPROVAL OF THIS PLAN IS CONTINGENT UPON ALL EASEMENTS REQUIRED FOR CONSTRUCTION OF THE IMPROVEMENT WORK, BE SECURED BY THE OWNER.

**INSPECTION-**

INSPECTION ON THIS PROJECT SHALL BE PROVIDED BY REPRESENTATIVES OF THE CITY OF COLUMBUS.

PRIOR TO CONSTRUCTION, THE DEVELOPER SHALL ENTER INTO A CONSTRUCTION AGREEMENT, POST SURETY AND DEPOSIT INSPECTION FEES WITH THE CITY OF COLUMBUS PUBLIC SERVICE DEPARTMENT FOR THE TOTAL ESTIMATED COSTS OF CONSTRUCTION IN ACCORDANCE WITH COLUMBUS CITY CODE SECTION 901.01.

THE CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBUS DEPARTMENT OF PUBLIC SERVICE (614) 645-0433 AND DIVISION OF SEWERS AND DRAINS (614) 645-7102 AT LEAST 24 HOURS PRIOR TO CONSTRUCTION.

**PERMITS-**

THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS. AN ORIGINAL PERMIT WITH RED SIGNATURES SHALL BE KEPT ONSITE AT ALL TIMES.

WHEN EXCAVATING WITHIN COLUMBUS PUBLIC RIGHT OF WAY LIMITS, THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM CITY OF COLUMBUS, DEPARTMENT OF PUBLIC SERVICE - PERMIT OFFICE BETWEEN THE HOURS OF 7:30 AM AND 4:00 PM MONDAY THROUGH FRIDAY. PHONE: (614) 645-7497; FAX: (614) 645-1876  
EMAIL: colspemits@columbus.gov

**UTILITIES-**

THE IDENTITY AND LOCATION OF EXISTING UNDERGROUND UTILITIES LOCATED IN AND AROUND THE CONSTRUCTION AREA HAVE BEEN SHOWN AND LABELED ON THE PLANS BY USING INFORMATION PROVIDED BY THE RESPECTIVE UTILITY OWNERS. THE CITY OF COLUMBUS OR THE CONSULTING ENGINEER WILL NOT ASSUME RESPONSIBILITY FOR THE ACCURACY OF LOCATION OR DEPTH OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE PLAN.

SUPPORT AND PROTECTION OF ALL UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COSTS FOR THE REPAIR AND RESTORATION OF EXISTING UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CITY OF COLUMBUS UTILITIES WILL ONLY LOCATE AND MARK MAIN LINE FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL SERVICE LATERAL AND LINES. COSTS ASSOCIATED WITH THE ABOVE WORK AND RESPONSIBILITIES SHALL BE INCLUDED IN THE PRICE BID FOR VARIOUS ITEMS.

**PRIOR TO EXCAVATION, THE CONTRACTOR SHALL GIVE A 48-HOUR NOTICE TO THE OHIO UTILITIES PROTECTION SERVICE (OUPS) BY CALLING (800) 362-2764. A 48-HOUR NOTICE SHALL BE GIVEN TO THE OWNERS OF UNDERGROUND UTILITIES SHOWN ON THE PLANS WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE.**

LISTED BELOW ARE UTILITY COMPANIES THAT HAVE FACILITIES LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND SUBSCRIBE TO OUPS.

\*\*\*\*\*\***CONSULTANT:** PLEASE LIST THE NAMES, ADDRESSES, AND PHONE NUMBERS OF THE UTILITY COMPANIES WITH FACILITIES LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND SUBSCRIBE TO OUPS.\*\*\*\*\*

THE FOLLOWING CITY OF COLUMBUS UTILITIES MAY BE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND DO NOT SUBSCRIBE TO A REGISTERED UNDERGROUND PROTECTION SERVICE:

CITY OF COLUMBUS DEPARTMENT OF TECHNOLOGY CITY HALL,90 W. BROAD ST. ROOM 316 COLUMBUS, OH 43215 CONTRACTOR LINE: (614) 645-7756 CABLE LOCATE FAX- (614) 645-6627	CITY OF COLUMBUS DEPARTMENT OF PUBLIC SERVICE TRAFFIC MAINTENANCE 1820 17TH AVE. COLUMBUS, OH 43219 OFFICE: (614) 645-7393 FAX: (614) 645-5967
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CITY OF COLUMBUS  
DIVISION OF SUPPORT SERVICES - COMMUNICATIONS  
4211 GROVES RD  
COLUMBUS, OH 43232  
TELEPHONE- (614) 724-7047  
RADIO ROOM: (614) 724-4066, FAX: (614) 645-6588

**EMERGENCY PROVISIONS-**

THE CONTRACTOR SHALL PROVIDE TO THE CITY OF COLUMBUS PROJECT REPRESENTATIVE A LIST OF 24 HOUR EMERGENCY TELEPHONE NUMBERS (IN WRITING) PRIOR TO THE START OF CONSTRUCTION.

**SECURING EXCAVATIONS & TRENCHES FOR NON-WORKING HOURS-**

EXCAVATIONS AND TRENCHES OVER 24 INCHES DEEP SHALL BE SECURELY PLATED OR BACKFILLED DURING NON-WORKING HOURS.

**CONSTRUCTION LIMITS-**

THE CONSTRUCTION LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE OF THESE CONSTRUCTION LIMITS.

**MISCELLANEOUS WORK ITEMS-**

THE CONTRACTOR SHALL PERFORM ALL ITEMS OF WORK CALLED FOR ON THE PLANS, FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED. THE COST OF THESE ITEMS SHALL BE INCLUDED IN THE PRICE BID FOR THE PROJECT IMPROVEMENT.

**BENCHMARKS AND SURVEY MONUMENTS-**

DO NOT DISTURB ANY FRANKLIN COUNTY CERTIFIED BENCHMARKS (VERTICAL AND/OR HORIZONTAL) LOCATED WITHIN THE WORKING LIMITS OF THE PROJECT. CONTRACTOR SHALL CONTACT THE FRANKLIN COUNTY SURVEY DEPARTMENT (614) 462-3026, PRIOR TO CONSTRUCTION , TO COORDINATE THE PROPER PROCEDURES FOR THE RESETTING, RELOCATION, OR REPLACEMENT OF ANY FRANKLIN COUNTY CERTIFIED BENCHMARK OR SURVEY MONUMENT.

**COMPACTION TESTING AT UTILITY CROSSINGS-**

PRIOR TO CONSTRUCTION OF THE PUBLIC ROADWAY, SOIL TESTS SHALL BE MADE ON ALL OPEN CUT UTILITY TRENCHES WHICH CROSS THE PROPOSED PAVEMENTS OR WHICH LIE SUCH THAT THE PROPOSED PAVEMENTS ARE LOCATED WITHIN ANY PART OF THE INFLUENCE LINE OF SAID TRENCH. WHERE SAID RESULTS INDICATE THAT THE TRENCH BACKFILL DOES NOT MEET THE COMPACTION REQUIREMENTS OF CMSC 912, ALL BACKFILL MATERIAL SHALL BE REMOVED, REPLACED, AND RE-TESTED UNTIL COMPLIANCE IS ACHIEVED.

**WHEEL CHAIR RAMP TRAINING REQUIREMENT**

ANY CONTRACTOR OR SUBCONTRACTOR INVOLVED IN DIRECTING, PLANNING, LAYOUT, AND/OR CONSTRUCTING WHEELCHAIR RAMPS OR OTHER AMENITIES REQUIRED UNDER THE "AMERICANS WITH DISABILITIES ACT OF 1990 (ADA)" SHALL HAVE PREVIOUSLY ATTENDED A CITY SPONSORED TRAINING SESSION TO BE PERMITTED TO EXECUTE WORK ON THIS PROJECT. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, PROJECT SUPERINTENDENTS, SUPERVISORS AND FOREMEN. LABORERS ARE ENCOURAGED, BUT NOT REQUIRED, TO ATTEND. FOR MORE INFORMATION CONTACT THE CITY'S ADA SECTION AT 645-0285.

**PLAN NOTES - INCLUDE ONLY IF APPLICABLE [PRIV DEV]**

**PRE-CONSTRUCTION CONFERENCE- (NOT APPLICABLE TO PRIVATE DEVELOPMENT PROJECTS)**

**SAW CUTTING IS INCLUDED-**

THE COST OF SAW CUTTING FOR THE REMOVAL OF PAVEMENT, CURB, WALKS, ETC. SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 202 WORK ITEMS. SAW CUTTING IS REQUIRED TO PROVIDE SMOOTH STRAIGHT EDGES FOR REMOVAL PURPOSES.

**NEW CURB RADIUS-**

INTERSECTION CORNERS OR HORIZONTAL CURVES SHALL MATCH THE EXISTING RADIUS UNLESS NOTED OTHER WISE.

**COTA- SIGNS AND/OR BUS STOPS-**

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT SENIOR SERVICE PLANNER OF THE CENTRAL OHIO TRANSIT AUTHORITY (COTA) @ PH- (614) 308-4373 OR FAX- (614) 275-5933 TO COORDINATE PROPER BUS MOVEMENTS THROUGH OR AROUND THE JOB SITE DURING THE PROJECT. THIS WILL INCLUDE, BUT NOT BE LIMITED TO, THE TEMPORARY RELOCATION OR REMOVAL OF COTA SIGNS AND/OR BUS STOP LOCATIONS.

**COTA- BUS SHELTERS/PADS-**

THE CONTRACTOR SHALL NOTIFY SENIOR SERVICE PLANNER OF COTA @ PH- (614) 308-4373 OR FAX- (614) 275-5933 A MINIMUM OF TWO WEEKS PRIOR TO THE REQUIRED REMOVAL OF A BUS SHELTER. COTA WILL DISASSEMBLE THE SHELTER AND THEN REINSTALL IT ONCE THE NEW CONCRETE SLAB IS IN PLACE. CONTRACTOR SHALL CONSTRUCT THE SLAB AS DIRECTED BY THE PLANS OR OTHER CONTRACT DOCUMENTS. ALL CONCRETE SLAB WORK SHALL BE PAID AS PER ITEM SPECIAL. REMOVE AND REPLACE BUS SHELTER SLAB, WITH THE CONTRACT UNIT PRICE PER EACH. THIS PAY ITEM SHALL INCLUDE ALL EXCAVATION AND REMOVAL WORK, EXPANSION JOINT MATERIAL, ITEM 608 - 6" CONCRETE WALK, AND ANY OTHER WORK AS REQUIRED OR DIRECTED BY THE ENGINEER.

**GAS SERVICE VALVES ADJUSTED TO GRADE-**

THE CONTRACTOR SHALL CONTACT COLUMBIA GAS (614) 460-2244 TO COORDINATE THE ADJUSTMENT OF GAS SERVICE VALVES.

**COLUMBIA GAS DAMAGE PREVENTION CENTER-**

FOR INFORMATION CONCERNING COLUMBIA GAS LINES OR EQUIPMENT, OR IF DAMAGE OCCURS TO GAS LINES OR EQUIPMENT, THE CONTRACTOR CAN CALL THE COLUMBIA GAS DAMAGE PREVENTION CENTER @ (614) 280-7372 OR TOLL FREE @ (866) 632-6243.

**NEW PIPE CONNECTION TO AN EXISTING SEWER STRUCTURE-**

WHERE THE PLANS PROVIDE FOR NEW PIPE TO BE CONNECTED TO AN EXISTING SEWER/STRUCTURE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CREATING AN OPENING AT THE PROPER SIZE, ALIGNMENT, AND ELEVATION FOR THE CONNECTION. THE OPENING SHALL BE MADE LARGE ENOUGH TO RECEIVE AND JOIN THE PROPOSED PIPE PER CMSC ITEM 604.

NO DIRECT PAYMENT SHALL BE MADE. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 901\_ PIPE WITH TYPE \_ BEDDING.

**CONCRETE WALKS-**

ALL EXISTING CONCRETE SIDEWALKS BEING REPLACED WITH NEW CONCRETE SIDEWALKS SHALL BE REMOVED AT AN EXISTING JOINT AND REPLACED PER STANDARD DRAWING 2300. INSTALL EXPANSION JOINT WHERE NEW CONCRETE ADJOINS EXISTING SIDEWALK.

ALL EXISTING CONCRETE SIDEWALKS NOT SCHEDULED FOR REPLACEMENT BUT BEING CROSSED BY THE INSTALLATION OF TRAFFIC ITEMS, ELECTRICAL CONDUIT, PIPING, ETC. SHALL BE FULLY REMOVED AT AN EXISTING JOINT AND REPLACED PER STANDARD DRAWING 2300 UNLESS NOTED OTHERWISE.

PAYMENT SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 608- CONCRETE WALK.

**"AS PER PLAN" NOTES - INCLUDE ONLY IF APPLICABLE [PRIV DEV]**

**AN 'AS PER PLAN' ITEM IS A STANDARD PAY ITEM WHOSE REQUIREMENTS NEED TO BE MODIFIED FROM THAT WHICH IS DEFINED IN THE CMSC OR SUPPLEMENTAL SPECIFICATIONS. EACH 'AS PER PLAN' ITEM SHALL HAVE A CORRESPONDING PLAN NOTE(S) OR PLAN DETAIL(S) OR COMBINATION. CLEARLY SPECIFY THE DEVIATIONS FROM THE STANDARD ITEM IF AN ITEM IS 'AS PER PLAN.' THE 'AS PER PLAN' TEXT SHALL BE INSERTED AT THE END OF THE ITEM DESCRIPTION.**

**EXAMPLES:**

**WALK REMOVED 'AS PER PLAN'**

THE EXISTING SIDEWALK SHALL BE REMOVED IN ACCORDANCE WITH THE PROPOSED SIDEWALK DETAILS. REMOVAL SHALL BE IN CONFORMANCE WITH CMSC SECTION 202. REFERENCE THE PLANS FOR LOCATIONS. THICKNESS' OF EXISTING WALKS VARY FROM 4" TO 8". NO SEPARATE PAYMENT SHALL BE MADE FOR REMOVAL OF THE VARIOUS THICKNESS' OF THE WALKS ENCOUNTERED. ANY SAW CUTTING NECESSARY TO REMOVE SIDEWALKS SHALL BE INCLUDED. PAYMENT SHALL BE PER SQUARE FOOT AND SHALL INCLUDE ALL NECESSARY TOOLS, LABOR, AND MATERIALS.

**PAVEMENT PLANING 'AS PER PLAN'**

UNDER THIS ITEM, ASPHALT SHALL BE MILLED FROM DESIGNATED STREETS TO A MINIMUM 1" DEPTH (TYPICAL 1.5"), OR AS INDICATED WITHIN THESE PLANS. PLANING DEPTHS INDICATED MAY BE ADJUSTED IN THE FIELD AT THE ENGINEER'S DISCRETION. INCREASED OR DECREASED PAVEMENT PLANING THICKNESS SHALL BE PERFORMED AT NO ADDITIONAL COST. ALL STREET PLANING SHALL MAINTAIN THE EXISTING CROWN. IF THE CROWN IS REMOVED AS A RESULT OF THE CONTRACTOR'S ERROR OR WITHOUT THE ENGINEER'S PRIOR APPROVAL, NO ADDITIONAL ASPHALT ABOVE THE PLAN QUANTITY FOR EACH SHEET SHALL BE PAID.

THE CONTRACTOR SHALL LOCATE ALL EXISTING LOOP DETECTORS PRIOR TO PLANING. IN THE EVENT A LEAD-IN CABLE IS DAMAGED, THE CONTRACTOR SHALL REPAIR. NO SEPARATE PAYMENT SHALL BE MADE FOR LOOP DETECTOR REPAIRS.

**BRICKS REMOVED, SALVAGED AND DELIVERED (S.Y.)**

REMOVAL: CAREFULLY REMOVE ALL BRICKS, AS INDICATED FOR REMOVAL, WITHOUT UNNECESSARY DAMAGE, AND CLEANED FOR RE-USE. INCLUDE THE REMOVAL AND DISPOSAL OF THE SAND SETTING BED.  
SALVAGE: STACK ALL UNDAMAGED AND CLEANED BRICKS ON PALLETS ANS SECURELY WRAP, FASTEN OR BOX IN PALLETS. STACK BRICKS NO MORE THAN EIGHT (8) LAYERS HIGH.  
DELIVERY: TRANSPORT ALL SALVAGED BRICKS TO THE CITY OF COLUMBUS, DEPARTMENT OF PUBLIC SERVICE 25TH AVE. MAINTENANCE YARD. CONTRACTOR SHALL CALL THE MAINTENANCE YARD MANAGER AT (614)645-8120 AT LEAST TWO WEEKS IN ADVANCE TO MAKE ARRANGEMENTS FOR DELIVERY. PAYMENT FOR THIS WORK SHALL BE MADE AFTER THE UNDAMAGED BRICK HAS BEEN DELIVERED. INCLUDE IN THE COST ALL WORK REQUIRED TO REMOVE, CLEAN, SALVAGE AND DELIVER BRICK AS BID PRICE FOR ITEM 202 - BRICK REMOVED FOR STORAGE, AS PER PLAN- S.Y.

CALCULATED  
ABC

CHECKED  
ABC

GENERAL NOTES

PROJECT NAME

XX

REVISED 6/25/14  
J:\Design and Construction\Design\Plan Review\SAMPLE SHEETS (E-Plan)\CAD Drawings\05\_01\_GENERAL NOTES.dwg (Notes (PRIV)-1)

**'ITEM SPECIAL' NOTES - INCLUDE ONLY IF APPLICABLE  
[CIP] OR [PRIV DEV]**

A 'SPECIAL' ITEM IS AN ITEM THAT DOES NOT EXIST IN THE STANDARD DRAWINGS, THE CMSC, OR SUPPLEMENTAL SPECIFICATIONS. IT SHALL BE CREATED BY MEANS OF CORRESPONDING PLAN NOTES, PLAN DETAILS, OR A COMBINATION THEREOF WHICH CLEARLY SPECIFIES ALL ASPECTS OF THE ITEM. IF AN ITEM IS A 'SPECIAL' THE WORD 'SPECIAL' SHALL BE INSERTED IN THE ITEM COLUMN.

**EXAMPLES:**

**STONE CURB TO BE REMOVED AND SALVAGED**

THE CONTRACTOR SHALL REMOVE, SALVAGE, AND DELIVER TO THE CITY OF COLUMBUS THE STONE (SANDSTONE, GRANITE) CURBING FROM THE EXISTING STREETS AS DIRECTED BY THE PLAN. THE CURB SECTIONS SHOWN ON THE PLANS TO BE SALVAGED SHALL BE CAREFULLY REMOVED WITHOUT NECESSARY DAMAGE AND CLEANED FOR RE-USE. STRAIGHT CURB SECTIONS TO BE SALVAGED SHALL BE AT LEAST FOUR FEET IN LENGTH. CURVED SECTIONS OF ANY LENGTH SHALL BE SALVAGED. ALL CLEANED CURB SECTIONS SHALL BE STACKED (NO MORE THAN FOUR HIGH) AND SECURELY FASTENED OR BOXED ONTO PALLETS.

WHEN THE CURBING HAS BEEN SECURED ONTO PALLETS, THE CONTRACTOR SHALL TRANSPORT IT TO THE CITY OF COLUMBUS, DEPARTMENT OF PUBLIC SERVICE - 25TH AVE. STREET MAINTENANCE YARD. THE CONTRACTOR SHALL CALL THE MAINTENANCE YARD MANAGER @ (614) 645-8120 AT LEAST TWO WEEKS IN ADVANCE TO MAKE ARRANGEMENTS FOR DELIVERY. PAYMENT FOR THIS WORK SHALL BE MADE AFTER THE CURBING HAS BEEN DELIVERED TO THE 25TH AVE MAINTENANCE YARD.

THE COST FOR ALL WORK REQUIRED TO REMOVE, CLEAN, SALVAGE, AND DELIVER CURBING SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM SPECIAL - CURB REMOVED FOR STORAGE - L.F.

**ASPHALT CONCRETE PATCHING**

THIS ITEM IS TO BE USED AS DIRECTED BY THE ENGINEER, WHEREVER AND WHENEVER IT BECOMES NECESSARY, IN THE OPINION OF THE ENGINEER, TO ALLEVIATE HAZARDOUS SITUATIONS, SUCH AS MANHOLE CASTINGS, VALVE CASTINGS, AND OTHER HAZARDOUS CONDITIONS THAT MAY EXIST. EACH SEPARATE AND DISTINCT AREA WHICH REQUIRES THIS ITEM WILL BE PAID AS ITEM SPECIAL - ASPHALT CONCRETE PATCHING - CY.

**INCLUDE PROJECT SPECIFIC NOTES FOR PLANS AS APPLICABLE**

A PROJECT SPECIFIC NOTE IS A 'CUSTOM' NOTE THAT IS UNIQUE TO EACH INDIVIDUAL PLAN. IT IS TYPICALLY USED TO CONVEY INFORMATION AND/OR DETAIL CONCERNING WORK ASSOCIATED WITH THE PROJECT.

**EXAMPLE:**

**SOILS INVESTIGATION**

GEOTECHNICAL REPORTS HAVE BEEN PREPARED FOR THIS PROJECT. COPIES OF THESE REPORTS MAY BE OBTAINED FROM THE DIVISION OF DESIGN AND CONSTRUCTION.

**INCLUDE OTHER AGENCY NOTES FOR PLANS AS APPLICABLE**

**POWER**

THE DIVISION OF POWER HAS (PRIMARY OR STREET LIGHTING OR SECONDARY) IN THE PROJECT AREA. THE CONTRACTOR IS HEREBY REQUIRED TO CONTACT OUPS AT 1(800) 362-2764 FORTY EIGHT HOURS PRIOR TO CONDUCTING ANY ACTIVITY WITHIN THE CONSTRUCTION AREA. THE DOP DISPATCH OFFICE NUMBER IS: (614) 645-7627 (VOICE)

ANY REQUIRED RELOCATION, SUPPORT, PROTECTION, OR ANY OTHER ACTIVITY CONCERNED WITH THE CITY'S (STREET LIGHTING SYSTEM FOR STREET LIGHTING) OR (ELECTRICAL FACILITIES FOR PRIMARY) IN THE CONSTRUCTION AREA IS TO BE PERFORMED BY THE CONTRACTOR UNDER THE DIRECTION OF DOP PERSONNEL AND AT THE EXPENSE OF THE PROJECT. DOP SHALL MAKE ALL FINAL CONNECTIONS TO DOP'S EXISTING ELECTRICAL SYSTEM AT THE EXPENSE OF THE PROJECT. THE CONTRACTOR SHALL USE MATERIAL AND MAKE REPAIRS TO A CITY OF COLUMBUS STREET LIGHTING SYSTEM BY FOLLOWING DOP'S "MATERIAL AND INSTALLATION SPECIFICATIONS" (MIS) AND THE CITY OF COLUMBUS "CONSTRUCTION AND MATERIAL SPECIFICATIONS - CITY OF COLUMBUS (CMSC). ANY NEW OR RE-INSTALLED UNDERGROUND STREET LIGHT SYSTEM SHALL REQUIRE TESTING AS REFERRED TO IN SECTION 1000.18 OF THE CMS MANUAL. THE CONTRACTOR SHALL CONFORM TO DOP'S EXISTING CONDUCTOR SAFETY POLICY AND HOLD CARD SYSTEM, MIS-95 COPIES OF WHICH ARE AVAILABLE FROM DOP IF YOU HAVE ANY QUESTIONS, CALL SCOTT WOLFE AT (614) 724-4351 OR CHRIS VOGEL AT (614) 645-6963.

IF ANY ELECTRIC FACILITY BELONGING TO DOP IS DAMAGED IN ANY MANNER BY THE CONTRACTOR, ITS AGENTS, SERVANTS, OR EMPLOYEES, AND REQUIRES EMERGENCY REPAIRS, DOP SHALL MAKE ALL NECESSARY REPAIRS, AND THE EXPENSE OF SUCH REPAIRS AND OTHER RELATED COSTS SHALL BE PAID BY THE CONTRACTOR TO THE DIVISION OF POWER, CITY OF COLUMBUS, OHIO.

**WATER**

**LEGEND**

**EXISTING CONDITIONS**

-----	CENTERLINE ROAD / DRIVE	-----	STONE WALL
-----	EDGE OF PAVEMENT	-----	ROCK
=====	CURB	-----	TREES
-----	BERM	-----	BUSHES
-----	ASPHALT OR CONCRETE DRIVE / WALK	-----	STUMP
-----	FENCE	-----	CONCRETE PAD
-----	GUARDRAIL	-----	WOOD POST
-----	EX R/W RIGHT-OF-WAY	-----	POST / BOLLARD
-----	P/L PROPERTY LINE	-----	FLAG POLE
-----	LOT LINE	-----	PARKING BLOCK
-----	ST STORM	-----	BIRDBATH
-----	SAN SANITARY	-----	HANDRAIL
-----	W WATER	-----	STEPS
-----	DITCH	-----	CATCH BASIN
-----	GAS UNDERGROUND GAS	-----	CURB INLET MANHOLE
-----	UGT UNDERGROUND TELEPHONE	-----	STORM MANHOLE
-----	UGE UNDERGROUND ELECTRIC	-----	CURB INLET
-----	OHE OVERHEAD ELECTRIC	-----	BUILDING
-----	EX U UTILITY EASEMENT (SPECIFY TYPE)	-----	CANOPY
-----	TREE LINE	-----	TREE (TBR)
-----	OHT OVERHEAD TELEPHONE		
-----	OHPF OVERHEAD FIBER OPTIC		
-----	SECTION LINE		
-----	RAILROAD		
-----	SIGNS		
-----	CITY OF COLUMBUS		
-----	CITY OF DUBLIN		
-----	MUNICIPAL BOUNDARY		
-----	COMBINATION CURB & GUTTER		
-----	CONCRETE WALL		

**EXISTING UTILITY SYMBOLS**

⊖	GUY ANCHOR	Ⓜ	MAILBOX	Ⓢ	SIGNAL POLE	Ⓢ	SANITARY MANHOLE	Ⓣ	TELEPHONE PULL BOX
⊕	FIRE HYDRANT	⊗	WATER VALVE	Ⓟ	PULL BOX	Ⓣ	TRAFFIC SIGNAL CONTROL BOX		
⊕	GAS VALVE	⊙	CLEAN OUT	Ⓜ	WATER METER	Ⓣ	TELEPHONE MANHOLE	Ⓣ	LIGHT POLE
Ⓣ	TELEPHONE ELECTRIC POLE	Ⓣ	ELECTRIC POLE	Ⓣ	ELECTRIC LIGHT POLE	Ⓣ	TELEPHONE POLE		

**SURVEY SYMBOLS**

⊙	IRON PIN/RAILROAD SPIKE FND.	Ⓜ	RIGHT-OF-WAY MON. FND.	⊙	MAG/PK NAIL SET
⊙	MAG/PK NAIL FND.	⊕	BENCHMARK	Ⓣ	SOIL BORING
▲	RAILROAD SPIKE SET	●	IRON PIN SET		

**ABBREVIATIONS**

1"WS.....1" WATER SERVICE	(TBA).....TO BE ABANDONED (SEE NOTE BELOW)
6"SS.....6" SANITARY SERVICE	(TBR).....TO BE REMOVED
1"GS.....1" GAS SERVICE	(TBRL).....TO BE RELOCATED
4"RD.....4" ROOF DRAIN	(RTG).....RECONSTRUCT TO GRADE
OHE.....OVERHEAD ELECTRIC	(ATG).....ADJUST TO GRADE
OHT.....OVERHEAD TELEPHONE	(ENC).....ENCROACHMENT TO REMAIN UNLESS OTHERWISE DIRECTED BY THE ENGINEER-IN-CHARGE
UGT.....UNDERGROUND TELEPHONE	(ENC-TBR).....ENCROACHMENT TO BE REMOVED BY THIS PROJECT
CATV.....CABLE TELEVISION	
(PA).....PREVIOUSLY ABANDONED	
(DND).....DO NOT DISTURB	

**PROPOSED LAYOUT**

-----	CONSTRUCTION CENTERLINE	=====	COMBINATION CURB & GUTTER
-----	CENTERLINE PROPOSED DRIVE	-----	24" STM
-----	CONSTRUCTION LIMITS	-----	STORM (24" AND LARGER)
-----	EDGE OF PAVEMENT	-----	DETECTABLE WARNING
=====	CURB	⊕	PROPOSED FIRE HYDRANT
-----	BERM	⊗	WATER VALVE
-----	WALK/SHARED-USE-PATH	●	STM MH
-----	R/W RIGHT-OF-WAY	●	SAN MH
-----	FENCE	■	CURB INLET
-----	GUARDRAIL	■	CATCH BASIN
-----	SAN SANITARY		
-----	ST STORM (18" AND SMALLER)		
-----	W WATER		
-----	DITCH		
-----	ASPHALT OR CONCRETE DRIVE		
-----	TMP TEMPORARY CONSTRUCTION EASEMENT		
-----	SW SEWER EASEMENT		
-----	CH CHANNEL EASEMENT		

CALCULATED  
CHECKED ABC

GENERAL NOTES

PROJECT NAME

XXXX-E  
XX

REVISED 10/24/14  
J:\Design and Construction\Design\Plan Review\Sample Sheets (E-Plan)\CAD Drawings\05\_01 GENERAL NOTES.dwg (Notes (CIP & PRIV)-2)

TEMPORARY TRAFFIC CONTROL REQUIRED FOR PRIVATE DEVELOPMENT PROJECTS

A. TEMPORARY TRAFFIC CONTROL ITEMS

- 1. ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), (CURRENT EDITION). COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF CONTRACTS, 1980 WEST BROAD STREET, COLUMBUS, OHIO, 43216. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 CRASH TESTING GUIDELINES.
2. CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE DEPARTMENT OF PUBLIC SERVICE INSPECTOR. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND THE REMOVAL OF CONFLICTING TRAFFIC CONTROLS, THEIR PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED. TEMPORARY PAVEMENT MARKINGS TO INCLUDE, BUT NOT LIMITED TO, CHANNELIZING LINES, EDGE LINES, AND CENTERLINES SHALL BE INSTALLED AND MAINTAINED ON ALL CONSTRUCTION OPERATIONS LASTING A MINIMUM OF 14 CALENDAR DAYS OR AS DIRECTED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR THE PROJECT ENGINEER.
3. THE CONTRACTOR SHALL GIVE ADVANCE NOTIFICATION (WRITTEN AND VERBALLY) TO THE TEMPORARY TRAFFIC CONTROL COORDINATOR AT 645-6269 OR 645 5845, THE COLUMBUS PAVING THE WAY PROGRAM COORDINATOR AT 645-7283 OR 645 6016, OR pavingtheway@columbus.gov, AND THE PROJECT ENGINEER, INFORMING THEM OF ALL UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON A WEEKLY BASIS. NOTIFICATION SHALL INCLUDE, BUT NOT LIMITED TO, WHAT, WHERE, WHEN, AND HOW PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE AFFECTED, AND THE TEMPORARY TRAFFIC CONTROL PROCEDURES THE CONTRACTOR IS PLANNING TO USE. THE TYPE OF TRAFFIC CHANGES SHALL DETERMINE THE LENGTH OF ADVANCE NOTIFICATION REQUIRED:

Table with 2 columns: TYPE OF CHANGE, ADVANCE NOTIFICATION NEEDED. Rows include: DETOURS / ROAD CLOSURES (30-DAY NOTIFICATION PRIOR TO CLOSURE), LANE CLOSURE LASTING TWO WEEKS OR MORE (2-WEEKS), LANE CLOSURES LESS THAN TWO WEEKS (3-DAYS), LANE CLOSURE OF TWO DAYS OR LESS (1-DAY)

THE COLUMBUS PAVING THE WAY PROGRAM COORDINATOR SHALL BE SUPPLIED COPIES OF ALL NOTIFICATION LETTERS SENT TO AREA BUSINESSES AND RESIDENTS.

THE COTA SENIOR SERVICE PLANNER SHALL BE CONTACTED 30 DAYS PRIOR TO ANY PLANNED CLOSURE ON ASSIGNED COTA ROUTES. ANY OTHER UNFORESEEN IMPACTS TO TRAFFIC SHALL BE IMMEDIATELY REPORTED AS THEY OCCUR.

- 4. ACCESS FOR PEDESTRIAN AND VEHICULAR TRAFFIC TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND, OR DETOURED AWAY FROM THE CONSTRUCTION SITE. TRAFFIC CONTROL FOR PEDESTRIAN MOVEMENT SHALL BE AS PER FIGURES 6H-28 (TA-28) AND 6H-29 (TA-29) OF PART VI OF THE OMUTCD. ALL SIDEWALK DIVERSIONS AND TEMPORARY MID-BLOCK CROSSINGS SHALL BE PRE-APPROVED BY THE PROJECT ENGINEER OR THE TEMPORARY TRAFFIC CONTROL COORDINATOR.
6. THE CONTRACTOR SHALL MAINTAIN ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS THROUGHOUT THIS PROJECT. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARILY RELOCATED OR COVERED, AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, OR IMPROPERLY PLACED SIGNS.
7. ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AS RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.
8. THE ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL THE CRITICAL PERMANENT TRAFFIC CONTROL ARE IN PLACE, OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE ENGINEER, ARE INSTALLED. THE CRITICAL PERMANENT TRAFFIC CONTROL ARE STOP, YIELD, ONE-WAY, DO NOT ENTER, AND RESTRICTED TURN SIGNS. OTHER CRITICAL SIGNS MAY BE NOTED ON THE PLANS AS WELL. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.
9. ITEM 614 - MAINTAINING TRAFFIC, LUMP SUM

ALL COSTS THAT CONSIST OF MAINTAINING AND PROTECTING VEHICULAR AND PEDESTRIAN TRAFFIC ACCORDING TO THE LATEST EDITION OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), AND PER THE REQUIREMENTS DESIGNATED IN THE PLAN INCLUDING ALL LAW ENFORCEMENT OFFICER (LEO) AND FLAGGER HOURS SHALL BE INCLUDED IN THE LUMP SUM ITEM 614.

IN ADDITION TO THE REQUIREMENTS HEREIN, AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC UNDER THE FOLLOWING CONDITIONS:

- WORK WITHIN A SIGNALIZED INTERSECTION, DEFINED AS THE AREA BOUNDED BY THE REAR X-WALK LINES
• WHEN FLAGGING WITHIN THE INTERSECTION OF TWO ARTERIAL ROADWAYS
• WHEN SPECIFIED IN THE MAINTENANCE OF TRAFFIC PLAN OR AS DIRECTED BY THE PROJECT ENGINEER
• WHEN SHIFTING TRAFFIC LEFT OF CENTER, THROUGH A SIGNALIZED INTERSECTION, WITHOUT SHIFTING SIGNAL HEADS

A FLAGGER SHALL BE UTILIZED TO ASSIST IN CONTROLLING TRAFFIC WHILE EQUIPMENT IS ENTERING OR EXITING AN INTERSECTION OR WORK ZONE. THE CONTRACTOR MAY UTILIZE HIS OWN OR LEO UNDER PAY ITEM 614 MAINTAINING TRAFFIC, LUMP SUM.

FLAGGERS AND LEO'S SHALL BE EQUIPPED ACCORDING TO THE STANDARDS FOR FLAGGING TRAFFIC CONTAINED IN THE OMUTCD. FLAGGING OPERATIONS PERFORMED BY LEO'S OR DESIGNATED FLAGGERS SHALL ONLY BE PERMITTED AS LONG AS ALL TRAFFIC CONTROL IS IN PLACE ACCORDING TO FIGURE 6H-10 (TA-10) IN THE OHIO MANUAL. PATROL CARS SHALL NOT BE USED IN FLAGGING OPERATIONS.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR TRAFFIC CONTROL OTHER THAN FOR THE REQUIRED IN THE PLANS, THEY DO SO AT THEIR OWN EXPENSE. THE CONTRACTOR SHALL MAKE ARRANGEMENT THROUGH THE COLUMBUS POLICE DIVISION AT (614) 645-4795.

LEO'S SHALL BE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH EMPLOYED BY THE CONTRACTOR, THE CITY REPRESENTATIVE SHALL HAVE CONTROL OVER THEIR PLACEMENT. LEO'S SHALL NOT HAVE THE AUTHORITY TO CHANGE, EDIT, OR MODIFY ANT MAINTENANCE OF TRAFFIC SCHEME WITHOUT THE PERMISSION OF THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR PROJECT ENGINEER UNLESS AN EMERGENCY DEVELOPS.

IF A SAFETY HAZARD DEVELOPS, A LEO MAY BE ASSIGNED BY THE COLUMBUS SAFETY AND SERVICES DIRECTOR AT THE CONTRACTOR'S EXPENSE.

TEMPORARY TRAFFIC CONTROL NOTES IF APPLICABLE FOR PRIVATE DEVELOPMENT PROJECTS

B. TEMPORARY TRAFFIC CONTROL ITEMS

- 1. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) SHALL BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO CLOSURE OF ROADWAY. THE MESSAGE SHALL ADVISE THE MOTORISTS OF THE DATES, TIMES, AND DURATION OF THE CLOSURE. THE PCMS SHALL REMAIN IN PLACE FOR 7 DAYS AFTER THE START OF THE CLOSURE, OR AS DIRECTED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR PROJECT ENGINEER.

- 2. TYPE C STEADY-BURN OR TYPE D 360-DEGREE STEADY BURN WARNING LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ONLY 42" REFLECTORIZED CHANNELIZING DEVICES (CONES) SHALL BE PERMITTED FOR NIGHTTIME WORK WITH THE APPROVAL OF THE TTC COORDINATOR AT 645-6269 OR 645-5845 PER ODOT STANDARDS.
3. A FLASHING ARROW PANEL (48" x 96"-TYPE C) SHALL BE USED IN LANE CLOSURES AS PER THE OHIO MANUAL (OMUTCD).
4. ALL TRENCHES WITHIN THE ROAD RIGHT OF WAY SHALL BE BACKFILLED OR SECURELY PLATED PER (CITY OF COLUMBUS GENERAL POLICY ON STEEL PLATE USAGE DATES 11/15/2006 AND 2013 STD. DWG. 1441) DURING NON-WORKING HOURS.
5. ALL EXISTING TRAFFIC LANES SHALL BE OPEN TO TRAFFIC AT ALL TIMES ON:
6. ALL TRAFFIC LANES SHALL BE FULLY OPEN TO TRAFFIC FROM 6:00 A.M. TO 9:00 A.M. AND 4:00 P.M. TO 6:00 P.M., OR 6:00 A.M. TO 9:00 A.M. AND 3:00 P.M. TO 6:00 P.M. IN THE COLUMBUS BUSINESS DISTRICT AREA, MONDAY THROUGH FRIDAY ON LANE (S) MAY BE CLOSED TO TRAFFIC DURING WORKING HOURS.
7. ONE-WAY LANE (S) OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON
8. TWO-WAY TWO-LANE (ONE-LANE EACH DIRECTION) SHALL BE MAINTAINED AT ALL TIMES BY USE OF EXISTING, PROPOSED, OR TEMPORARY PAVEMENT PER FIGURE 6H-32 TYPICAL APPLICATION 32 (TA-32) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
9. TWO-WAY ONE-LANE TRAFFIC MAY BE MAINTAIN DURING CONSTRUCTION OPERATIONS ON PER FIGURE 6H-10 (TA-10) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
10. MAY BE CLOSED BETWEEN AND FOR A MAXIMUM OF HOUR (S)/ DAY (S) BETWEEN THE HOURS OF AND PER FIGURE 6H-20 (TA-20) OF THE OMUTCD AND/OR APPROVED BY THE DEPARTMENT OF PUBLIC SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN PROVIDING A DETOUR INCLUDING THE REMOVAL AND REINSTALLATION OF ANY CONFLICTING TRAFFIC CONTROL AND/OR ANY NECESSARY TRAFFIC SIGNAL WORK.
11. A TEMPORARY DIVERSION SHALL BE PROVIDED AND MAINTAINED IN GOOD CONDITION ON DURING THE PERIOD OF WORK. ALL SUCH DIVERSIONS SHALL BE IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD).
12. THE DEPARTMENT OF PUBLIC SERVICE WILL REMOVE OR COVER ALL PARKING METER HEADS PUT OUT OF SERVICE BY THIS CONTRACT. THERE IS A \$60.00 CHARGE FOR THE REMOVAL AND RE-INSTALLATION OF EACH METER. IN ADDITION, A DAILY METER FEE WILL BE CHARGED FOR ALL ENFORCEMENT HOURS FOR EACH METER TAKEN OUT OF SERVICE. THESE CHARGES WILL BE COLLECTED FROM THE CONTRACTOR IN ADVANCE WITH THE ISSUANCE OF THE STREET OCCUPANCY / EXCAVATION PERMIT FROM THE DEPARTMENT OF PUBLIC SERVICE'S PERMIT OFFICE. (645-7497) THE MANAGER OF PARKING SERVICES SUPPORT (645-7890) SHALL BE NOTIFIED A MINIMUM OF FORTY-EIGHT (48) HOURS ( EXCLUDING SAT. SUN., & HOLIDAYS) PRIOR TO THE BEGINNING OF WORK. CALL 645-8376 IF UNABLE TO MAKE CONTACT THROUGH THE PRIOR PHONE NUMBER.
13. TEMPORARY "EMERGENCY NO PARKING" SIGNS SHALL BE INSTALLED AT 50' INTERVALS C/C MINIMUM BY USE OF ANY OF THE FOLLOWING ITEMS: EXISTING SIGN POSTS, EXISTING UTILITY POLES, DRUMS AND/OR 42" CONES AND REMOVED BY THE CONTRACTOR IN AREAS WITH NO PARKING METERS. THE SIGNS SHALL HAVE THE INSTALLATION DATE, WORKING DATES, AND HOURS OF RESTRICTION SHOWN ON EACH SIGN. THESE SIGNS CAN BE OBTAINED FROM THE DEPARTMENT OF PUBLIC SERVICE'S PERMIT OFFICE. THE POLICE DIVISION REQUIRES THE "EMERGENCY NO PARKING" SIGNS TO BE POSTED A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY VEHICLES BEING TOWED. WITHIN TWENTY-FOUR (24) HOURS OF POSTING, THE CONTRACTOR SHALL SUPPLY THE DEPARTMENT OF PUBLIC SERVICE WITH A WRITTEN RECORD OF POSTED LOCATIONS (FAX 645-3298).
14. TRAFFIC OPERATIONS' PERSONNEL SHALL LOCATE AND MARK ALL UNDERGROUND TRAFFIC CONTROL CABLES. THE TRAFFIC OPERATIONS SHOP SHALL BE NOTIFIED 645-7393 (FAX 645-5967) AT LEAST FORTY-EIGHT (48) HOURS ( EXCLUDING SATURDAY & SUNDAY) PRIOR TO THE BEGINNING OF ANY WORK WITH 450 FEET OF ANY SIGNALIZED INTERSECTION (S) OR WITHIN ANY POSTED AREA WHERE THE DEPARTMENT HAS UNDERGROUND CABLE. THE SIGNAL OPERATION ENGINEER (645-6418) SHALL BE NOTIFIED SIX (6) WEEKS IN ADVANCE FOR SIGNAL REVISION OR POLE RELOCATIONS.
15. NO EXCAVATION SHALL BE MADE WITHIN FIVE (5) FEET OF ANY FOUNDATION THAT SUPPORTS SIGNAL POLES, TRAFFIC SIGNAL DISPLAYS OR SIGNS BY MAST ARMS OR SIGNAL SPAN. EXCAVATION WITHIN EIGHT (8) FEET, BUT MORE THAN FIVE (5) FEET SHALL REQUIRE ADDITIONAL SUPPORT (DOWN GUY, HEAD GUY, BASE GUY, ETC.). THE CONTRACTOR SHALL CONTACT SIGNAL OPERATION PERSONNEL AT 645-0423 (CELL 419-4501) AT LEAST FORTY-EIGHT (48) HOURS (EXCLUDING SATURDAY & SUNDAY) PRIOR TO BEGINNING OF SUCH EXCAVATION SO THAT THE CITY CAN APPROVE THE STABILIZATION SETUP BY THE CONTRACTOR. IF UNABLE TO MAKE CONTACT THROUGH ABOVE NUMBERS, CALL 645-7393. STABILIZATION WILL BE DONE BY THE CONTRACTOR AT THE OWNERS' / CONTRACTING AGENCY'S EXPENSE.
16. WHEN ANY TRAFFIC CONTROL DEVICE, CONDUIT, OR CABLE IS DAMAGED, THE CONTRACTOR SHALL NOTIFY SIGNAL OPERATION PERSONNEL AT 645-0423 (CELL 451-4501) BETWEEN 7:00 A.M. AND 4:00 P.M., MONDAY THROUGH FRIDAY. IF UNABLE TO MAKE CONTACT THROUGH THE OTHER NUMBERS, CALL 645-7393.
17. SIGNAL CONDUIT CLEARANCE FROM ADJACENT UTILITIES SHALL BE MAINTAINED AT ALL TIMES, THE SIGNAL CONDUIT CLEARANCE TABLE CAN BE FOUND IN THE CITY OF COLUMBUS TRAFFIC SIGNAL DESIGN MANUAL TABLE 13.2, MINIMUM CONDUIT CLEARANCE.
18. THE ROADWAY OR ANY SECTION OF ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL ALL TEMPORARY, NON-REFLECTIVE, BLACKOUT TAPE HAS BEEN COMPLETELY REMOVED FROM NON-CONFLICTING PERMANENT PAVEMENT MARKINGS FOR THAT AREA OF THE ROADWAY, OR UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER. THIS IS SUPPLEMENTAL TO THE CMS-614.11F, AND SHALL BE PAID FOR THROUGH THE 614-LUMP SUM.
19. WHENEVER YELLOW CENTERLINES OR TURN-LANE LINE ARE PAVED OVER, REMOVED, OR OTHERWISE UNSERVICEABLE, THE CONTRACTOR SHALL INSTALL CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS). TEMPORARY PAINT SHALL BE USED ON ALL MILLED SURFACES. TEMPORARY TAPE SHALL BE USED ON ALL FINAL COURSES OF ASPHALT. PAINT OR TAPE MAY BE USED ON ALL INTERMEDIATE COURSES OF ASPHALT. IF APPROVED BY THE ENGINEER, DRUMS WITH STEADY BURNING TYPE C OR TYPE D 360 DEGREE WARNING LIGHTS AND "KEEP RIGHT" SIGNS MAY BE SUBSTITUTED FOR CENTERLINE MARKINGS.
20. CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS) SHALL BE AS PER ITEM 614-WORK ZONE PAVEMENT MARKINGS AND SHALL BE PLACED WITH ONE (1) FOOT LONGITUDINAL TOLERANCE OF THE PERMANENT STRIPE (S). ALL STRIPING NOT TO WITHIN ONE (1) FOOT TOLERANCE SHALL BE REMOVED AND REPLACED IN THE PROPER LOCATION BY THE CONTRACTOR. CLASS II TEMPORARY STRIPING SHALL BE OF THE APPROPRIATE COLOR AND SPACED AT A MAXIMUM OF FORTY (40) FEET CENTER TO CENTER.

EXISTING PERMANENT TRAFFIC CONTROL NOTES REQUIRED FOR PRIVATE DEVELOPMENT PROJECTS

C. EXISTING PERMANENT TRAFFIC CONTROL ITEMS

- 1. ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTOR'S EXPENSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLATION AND/OR REPLACEMENT OF ALL PERMANENT TRAFFIC CONTROL DEVICES DAMAGED OR REMOVED DURING CONSTRUCTION. PERMANENT TRAFFIC CONTROL NO LONGER IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE REPLACED IMMEDIATELY.

EXISTING PERMANENT TRAFFIC CONTROL NOTES IF APPLICABLE FOR PRIVATE IMPROVEMENT PROJECTS

D. EXISTING PERMANENT TRAFFIC CONTROL ITEMS

- 1. ALL OVERHEAD CABLE, DOWN GUYS OR BACK GUYS SHALL NOT BLOCK ANY PORTION OF A TRAFFIC SIGNAL, TRAFFIC CONTROL SIGN, OR OTHER TRAFFIC CONTROL DEVICE SUCH THAT VISIBILITY OR OPERATION OF THE TRAFFIC CONTROL DEVICE IS IMPAIRED.
2. ALL PERMANENT PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS AS SHOWN ON THIS PLAN SHALL BE INSTALLED BY THE CONTRACTOR AT THE PROJECT'S EXPENSE. THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN. ) PRIOR TO THE INSTALLATION OF PERMANENT MARKING TO INSPECT AND APPROVE THE PAVEMENT MARKING LAYOUT PRIOR TO PLACING THE PERMANENT MARKINGS.
3. PERMANENT STRIPING OR CLASS I TEMPORARY STRIPING SHALL BE INSTALLED NO LATER THAN FOURTEEN (14) CALENDAR DAYS AFTER THE FINAL PAVING COURSE IS COMPLETED. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE STRIPING CONTRACTOR TO INSURE THE PERMANENT STRIPING IS INSTALLED WITHIN THE FOURTEEN (14) CALENDAR DAY LIMIT.
4. IF THE DEPARTMENT OF PUBLIC SERVICE IS TO INSTALL PERMANENT STRIPING, THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF TEN (10 ) WORKING DAYS PRIOR TO THE APPLICATION OF THE FINAL COURSE OF PAVEMENT.

NOTE #5 INSTRUCTIONS: DO NOT PLACE IN PLAN
INSERT NOTE #5 WHEN; WORKING NEAR A LOCATION WHERE TRAFFIC LOOP DETECTION AND/OR ITS LEAD IN CABLES COULD BE INADVERTENTLY DAMAGED. CONTINGENCY ITEMS AND ESTIMATED QUANTITIES SHALL ONLY BE INCLUDED AS DIRECTED BY THE PLAN REVIEWER. LOOP DETECTION AND/OR ITS LEAD IN CABLES BEING DESTROYED OR ELSE RENDERED INOPERATIVE DUE TO TYPICAL CONSTRUCTION ACTIVITIES SHALL BE QUANTIFIED IN THE GENERAL SUMMARY AND SIGNAL SUMMARY AND SHOWN AS REMOVED AND REPLACED. NOTE # 5 IS NOT REQUIRED FOR THIS OPERATION UNLESS THE AFOREMENTIONED REQUIREMENT IS MET.

5. AT ANY LOCATION WHERE THE CONTRACTOR DAMAGES DETECTORS AND/OR THEIR LEAD IN CABLES THE CONTRACTOR SHALL REPLACE THEM. AT ANY LOCATION WHERE DETECTION IS CHANGED FROM MAG PROBE UNITS TO LOOP, THE CONTRACTOR SHALL REPLACE THE PROBE LEAD-IN WITH LOOP LEAD-IN CABLE. ALL REPAIRS TO DETECTION SHALL BE COMPLETED WITHIN 21 DAYS FROM DAMAGE TO DETECTION ON A PER INTERSECTION BASIS. IF THE 21 DAY REPAIR PERIOD CANNOT BE SATISFIED AT ANY LOCATION WHERE THE CONTRACTOR DAMAGES DETECTORS AND/OR THEIR LEAD-IN CABLES, THE CONTRACTOR, AT THE DIRECTION OF SIGNAL OPERATION PERSONNEL, MAY BE REQUIRED TO INSTALL A VERSICAM FLEX CAMERA SYSTEM OR TEMPORARY LOOP DETECTION. ANY CONTRACTOR FAILING TO COMPLY WITH THESE GUIDELINES SHALL BE SUBJECT TO PENALTY TO THE SUM OF \$100.00 PER DAY FOR EACH DAY BEYOND THE 21 DAY PERIOD ON A PER INTERSECTION BASIS, UNTIL CONDITIONS ARE MET TO THE SATISFACTION OF SIGNAL OPERATIONS PERSONNEL. THIS PENALTY DEDUCTION SHALL BE SPECIFIC TO EACH SIGNALIZED INTERSECTION EFFECTED BY THIS PROJECT AND SEPARATE FROM ANY LIQUIDATED DAMAGES FOR THE PROJECT AS A WHOLE. THE WORK TO INSTALL THE DETECTION SHALL CONFORM TO ODOT STANDARD DRAWING TC-82.10 ( DATED 4/29/02 OR LATER) AND TO THE CURRENT STATE OF OHIO CONSTRUCTION AND MATERIAL SPECIFICATIONS WITH THE FOLLOWING PROVISIONS.

- A) THE CONTRACTOR SHALL PROVIDE THE DEPARTMENT OF PUBLIC SERVICE'S INSPECTOR, PRIOR TO THE COMMENCEMENT OF WORK, THE IMSA (INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION) CERTIFICATION PAPERS FOR ALL SIGNAL TECHNICIANS WORKING ON THIS PROJECT.
B) LOCATIONS OF THE REPLACEMENT DETECTION SHALL BE FIELD MARKED OR DIMENSIONED DRAWINGS SHALL BE SUBMITTED TO THE CONSTRUCTION SECTION BY DEPARTMENT OF PUBLIC SERVICE PERSONNEL. LOCATION OF FINAL PAVEMENT MARKINGS OR THE MARKINGS THEMSELVES SHALL BE CLEARLY INDICATED ON THE ASPHALT PRIOR TO DETECTOR LOCATIONS BEING MARKED. THE CONTRACTOR SHALL LAYOUT THE LOOPS ON THE PAVEMENT IF DRAWINGS ARE SUBMITTED. IF DRAWINGS HAVE NOT BEEN PROVIDED, CONTACT SIGNAL OPERATIONS PERSONNEL AT 645-0423 ( CELL 419-4501 ) AT LEAST TWO WORKING DAYS PRIOR TO NEEDING THE LOCATION MARKED. IF UNABLE TO MAKE CONTACT THROUGH THE ABOVE NUMBERS, CALL 645-7393.
C) THE SAW SLOT DEPTH FOR LOOP WIRE INSTALLATION SHALL BE FOUR (4) INCHES WITH SIX (6) INCHES AT THE CONDUIT ENTRANCE. IF ADVERSE PAVEMENT CONDITIONS WARRANT, DEPTH MAY BE INCREASED TO SIX (6) INCHES THROUGHOUT AND SHALL BE DETERMINED BY THE DEPARTMENT OF PUBLIC SERVICE INSPECTOR.
D) EACH LOOP SHALL HAVE ITS OWN CONDUIT FROM EDGE OF PAVEMENT TO PULL BOX UNLESS SPECIFIED OTHERWISE BY THE DEPARTMENT OF PUBLIC SERVICE INSPECTOR.
E) THE PULLBOX ASSEMBLY SHALL BE RATED AS MEDIUM TO HEAVY DUTY, TO BE INSTALLED IN CONCRETE WALKWAYS, AND HAVE ALL STAINLESS STEEL HARDWARE. THE PULLBOX COVER SHALL HAVE THE WORD "TRAFFIC" ON IT. THE COVER SHALL BE BOLTED TO THE BOX AND SHALL BE EITHER POLYMER CONCRETE OR STEEL PLATE. THE COVER PLUS HOUSING AS A UNIT SHALL BE RATED TO WITHSTAND A MINIMUM OF 20,000LB. STATIC LOAD OVER A 10"x10" AREA AS PER ASTM-C857. THE BOX DEPTH SHALL BE 18 INCHES MINIMUM TO 30 INCHES MAXIMUM. IF THE PROJECT DOES NOT SPECIFY 713.08 CONCRETE PULL BOXES, THE SUPPLIED ASSEMBLIES SHALL BE AS FOLLOWS: CDR SYSTEMS MODEL SA32-1015-18, OR SYNERTECH MODEL 11"x 18". SIX (6) INCHES OF #4 AGGREGATE SHALL BE PLACED AT THE BOTTOM OF THE PULLBOX. NO CONDUIT SHALL PROTRUDE MORE THAN THREE (3) INCHES INSIDE THE PULLBOX. CONDUIT ELLS OR EXTENSIONS MAY BE USED TO ALIGN THE CONDUIT WITH THE HOUSING. THE COST FOR THE EXTENSIONS OR ELLS IF NEEDED SHALL BE INCIDENTAL TO THE PER UNIT PRICE.
F) WHEN A PULLBOX IS NOT USED, THE SOLDERED SPLICE SHALL BE MADE IN AN ANCHOR BASE STRAIN POLE OR CONDUIT RISER SPECIFIED BY THE DEPARTMENT OF PUBLIC SERVICE'S REPRESENTATIVE, EXCEPT WHERE A CONTROLLER CABINET IS MOUNTED ON THAT POLE IN WHICH CASE THE LOOP WIRE SHALL BE ROUTED DIRECTLY INTO THE CABINET.
G) THE CONTRACTOR SHALL NOT MAKE ANY WIRING CONNECTIONS OR ADJUSTMENTS INSIDE THE CONTROL CABINET. WHEN SUCH CONNECTIONS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE TRAFFIC OPERATIONS SHOP 645-7393, MON.-FRI., 8AM-4PM, TO SCHEDULE CITY FORCES FOR MAKING THE ACTUAL CONNECTIONS. THE CONTRACTOR SHALL BE AVAILABLE AT THE AGREED TIME. THE CONTRACTOR WILL BE BILLED FOR ANY TIME CITY FORCES ARE REQUIRED TO WAIT FOR THE CONTRACTORS' WORK TO BE COMPLETED.
H) CONDUIT PLACED IN "RIGHT OF WAY" AREAS BEARING NO TRAFFIC FOR DETECTOR LEAD IN SHALL BE ODOT ITEM 725.051, ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS, LATEST EDITION. CONDUIT PLACED UNDER A ROADWAY OR IN AREAS THAT MAY BEAR TRAFFIC SHALL BE ODOT ITEM 725.04 (SIZES AND TYPE TO BE DETERMINED BY THE DEPARTMENT OF PUBLIC SERVICE'S REPRESENTATIVE. ALL CONDUITS SHALL BE PLACED AT A MINIMUM DEPTH OF 24 INCHES.
I) LOOP WIRE SHALL BE IDENTIFIED WITH A PLASTIC TAG (WBLT, EBRT, ECT.) AT THE SPLICE POINT OR AT THE ENTRANCE TO THE CABINET IF LEAD-IN CABLE IS NOT USED.
J) THE ITEMS AND ESTIMATED QUANTITIES FOR THE REPLACEMENT OF THE DEPARTMENT OF PUBLIC SERVICE'S DETECTION ITEMS SHALL BE INCLUDED IN THESE PLANS WHEN DIRECTED BY THE PLAN REVIEWER. THESE ESTIMATES ARE FOR THE PURPOSE OF BIDDING THE PROJECT. THE FOLLOWING LIST OF THE ITEMS AND QUANTITIES PROJECTED FOR USE IN DETECTOR REPLACEMENT FOR THIS PROJECT:

Table with 4 columns: ITEM, QUANT, UNIT, ITEM DESCRIPTION. Rows include: 202 SF WALK REMOVED, 608 SF 4" CONCRETE WALK, 632 LF CONDUIT RISER, 1 OR 2 INCH DIA., 625 LF CONDUIT 1, 1 1/2, OR 2 INCH DIA., 625 LF TRENCH, 625 EACH PULL BOX, AS PER PLAN, 632 EACH DETECTOR LOOP, 632 LF LOOP DETECTOR LEAD-IN CABLE, 632 LF LASH / UNLASH CABLE

THE CONTRACTOR SHALL NOTIFY SIGNAL OPERATIONS' PERSONNEL AT 645-0423 (CELL 419-4501) AFTER ALL LOOPS HAVE BEEN INSTALLED AT EACH INTERSECTION. IF UNABLE TO MAKE CONTACT THROUGH THE ABOVE NUMBER CALL, 645-7393. THE DEPARTMENT OF PUBLIC SERVICE SHALL INSPECT ALL SENSORS AND TEST AS NECESSARY. THE CONTRACTOR SHALL REPLACE ALL LOOPS NOT MEETING SPECIFICATIONS.



HORIZ SCALE



CALCULATED

CHECKED

MAINTENANCE OF TRAFFIC NOTES

PROJECT NAME



**EXISTING PERMANENT TRAFFIC CONTROL NOTES ITEM SPECIAL FOR CAPITAL IMPROVEMENT PROJECTS**

**E. ITEM SPECIAL- PARKING METER POSTS REMOVED OR POST CORES**

THE CONTRACTOR SHALL COORDINATE WITH THE DEPARTMENT OF PUBLIC SERVICE REGARDING PARKING METERS TO BE REMOVED, METERS TO BE RELOCATED, AND NEW METER INSTALLATION.

THE DEPARTMENT OF PUBLIC SERVICE WILL REMOVE ANY METER HEADS SPECIFIED TO BE REMOVED, ROTATE METER HEADS SPECIFIED TO BE ROTATED; AND INSTALL METER HEADS AND POSTS FOR ANY NEW METERS SPECIFIED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE THE POST AFTER THE METER HEAD IS REMOVED BY DPS. IF A NEW METER IS PLANNED IN A PAVED OR CONCRETE AREA, THE CONTRACTOR SHALL COORDINATE WITH THE DEPARTMENT OF PUBLIC SERVICE TO HAVE POST LOCATIONS PREMARKED AND SHALL CORE HOLE FOR POST INSTALLATION.

THE DEPARTMENT OF PUBLIC SERVICE WILL REMOVE OR COVER ALL PARKING METER HEADS PUT OUT OF SERVICE BY THIS PROJECT. THERE IS A \$60.00 DOLLAR CHARGE FOR THE REMOVAL AND REINSTALLATION OF EACH METER. IN ADDITION, A DAILY METER FEE WILL BE CHARGED FOR ALL ENFORCEMENT HOURS FOR EACH METER TAKEN OUT OF SERVICE. THESE CHARGES WILL BE COLLECTED FROM THE CONTRACTOR IN ADVANCE WITH THE ISSUANCE OF THE STREET OCCUPANCY/EXCAVATION PERMIT FROM THE DEPARTMENT OF PUBLIC SERVICE'S PERMIT OFFICE. (645-7497) THE MANAGER OF PARKING SERVICES SUPPORT (645-7890) SHALL BE NOTIFIED A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT, SUN, & HOLIDAYS) PRIOR TO BEGINNING WORK. CALL 645-8376 IF UNABLE TO MAKE CONTACT THROUGH THE PRIOR PHONE NUMBER.

PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE FOLLOWING:  
ITEM SPECIAL - PARKING METER POST REMOVAL  
ITEM SPECIAL - PARKING METER POST CORE



HORIZ. SCALE

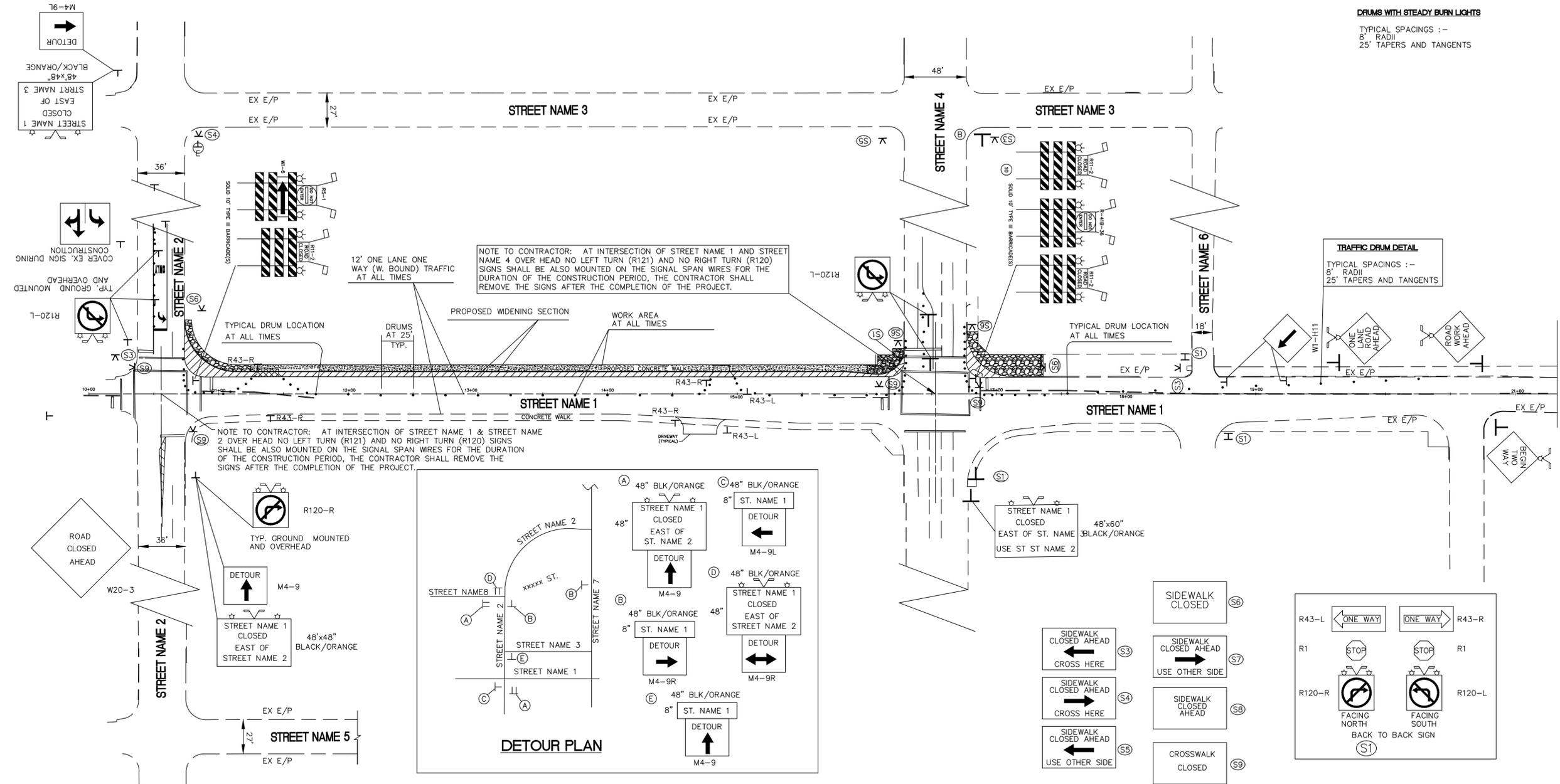


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MAINTENANCE OF TRAFFIC NOTES

PROJECT NAME

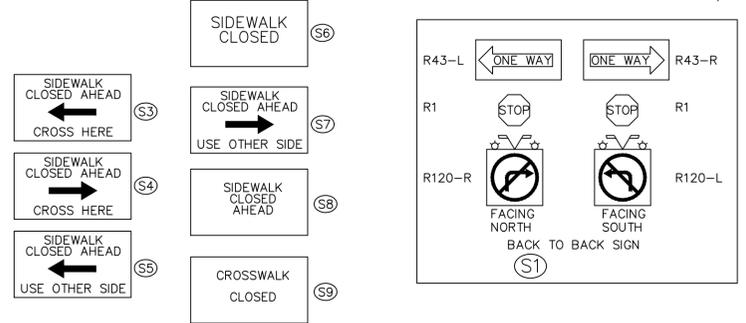
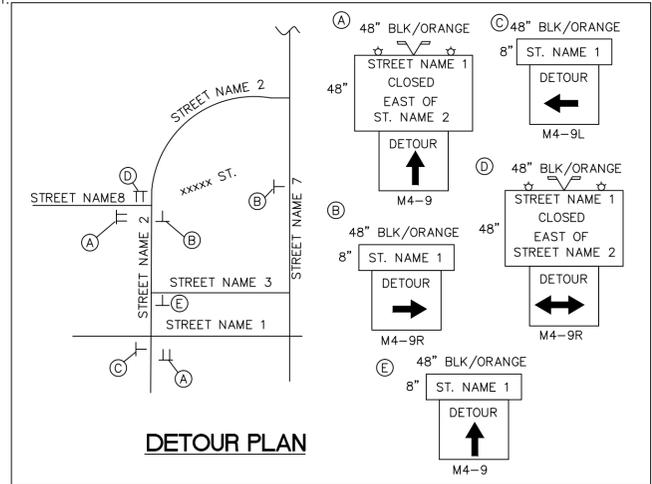




**DRUMS WITH STEADY BURN LIGHTS**  
 TYPICAL SPACINGS :-  
 8' RADII  
 25' TAPERS AND TANGENTS

**NOTE TO CONTRACTOR:** AT INTERSECTION OF STREET NAME 1 AND STREET NAME 4 OVER HEAD NO LEFT TURN (R121) AND NO RIGHT TURN (R120) SIGNS SHALL BE ALSO MOUNTED ON THE SIGNAL SPAN WIRES FOR THE DURATION OF THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL REMOVE THE SIGNS AFTER THE COMPLETION OF THE PROJECT.

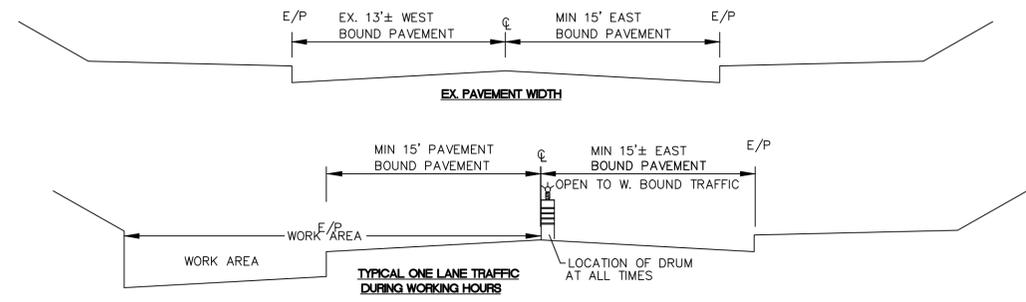
**NOTE TO CONTRACTOR:** AT INTERSECTION OF STREET NAME 1 & STREET NAME 2 OVER HEAD NO LEFT TURN (R121) AND NO RIGHT TURN (R120) SIGNS SHALL BE ALSO MOUNTED ON THE SIGNAL SPAN WIRES FOR THE DURATION OF THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL REMOVE THE SIGNS AFTER THE COMPLETION OF THE PROJECT.



**SIGNAL MOT**  
**PHASE I**  
 DURING PHASE I EASTBOUND SIGNAL HEADS FOR STREET NAME 1 @ STREET NAME 4 SHALL BE COVERED AND HAVE POWER DISCONNECTED TO THE HEADS AT THE CONTROL CABINET. (SEE %XUTEM 632 COVERING OF VEHICULAR/PED SIGNAL HEADS AND PUSHBUTTONS, AS PER PLAN SHEETS 31-46) CONTACT THE CITY OF COLUMBUS TRAFFIC MAINTENANCE SHOP AT 645-7933 WHEN SIGNAL HEADS ARE TO BE COVERED SO THE CITY CAN DISCONNECT THE EASTBOUND LOOP. (GIVE 3 CITY WORK DAY NOTICE) TEMPORARY SIGNAL POLE INSTALLATION WILL BE COMPLETED AT THIS TIME. EACH TEMPORARY SIGNAL POLE LOCATION IS TO BE STAKED AND THE LOCATION APPROVED BY THE TRANSPORTATION DIVISION SIGNAL INSPECTOR. THE CONTRACTOR MAY REUSE EXISTING SPAN OR INSTALL NEW AS REQUIRED BUT INSTALL TWO NEW PIGTAILS. AS PER PLAN, THE CONTRACTOR SHALL TRANSFER EXISTING SIGNAL ITEMS (SIGNAL CONTROLLER CABINET, PED UNITS, & PUSHBUTTONS W/SIGNS) AND EXTEND CABLE AS NEEDED. WEATHERPROOF SPLICING IS PERMITTED INCLUDING HEAD SHIFTING. ONE OR TWO DOWN GUYS ARE TO BE USED AS SPECIFIED.

**PHASE II**  
 SHIFT WESTBOUND SIGNAL HEADS AT STREET NAME 1 @ STREET NAME 4 AND STREET NAME 1 @ STREET NAME 2. THE CONTRACTOR SHALL SHIFT OVERHEAD SIGNS AS INDICATED AND PLACE SIGNAL HEADS AT STREET NAME 1 @ STREET NAME 2 4' ON EACH SIDE OF THE CENTER LINE OF THE LANE. SIGNAL HEADS AT ROAD NO. 1 @ XXXX ST SHALL BE PLACED IN SAME MANNER UNLESS LEFT TURN LANE IS ADDED THEN SHIFT SIGNAL HEADS 1' FROM DOUBLE YELLOW LINE WITH 9' SPACING. THE CONTRACTOR SHALL NOTIFY THE SIGNAL MAINTENANCE SHOP (645-7933) THREE (3) CITY WORKDAYS PRIOR TO ANY LANE SHIFTING THAT EFFECTS TRAFFIC PASSING THROUGH A SIGNALIZED INTERSECTION OR PRIOR TO ANY SIGNAL WORK SO REQUIRED SIGNAL TIMING, PHASING OR CONTROL CABINET CHANGES CAN BE MADE TO THE EXISTING EQUIPMENT.

- CONSTRUCTION STAGING: STAGE 2**  
 CONSTRUCTION OF NEW PAVEMENT ON THE NORTH SIDE OF STREET NAME 1.
1. THE ERECTION OF THE TEMPORARY SIGNS AND TRAFFIC MARKINGS.
  2. THE CONSTRUCTION OF THE NEW WIDENING SECTION ON THE NORTH SIDE OF STREET NAME 1 AND THE CONSTRUCTION/RELOCATION OF ALL UNDERGROUND UTILITIES AND CONDUITS.
  3. THE FINAL PAVING OF THE ENTIRE PROJECT WIDTH AND LENGTH
  4. THE SEEDING AND MULCHING OF THE ENTIRE SITE.
  5. THE FINAL STRIPING AND SIGNING OF THE ENTIRE PROJECT
  6. THE CONSTRUCTION OF THE NEW SIGNAL AT THE INTERSECTION OF STREET NAME 1 AND STREET STREET NAME 4, AND THE SIGNAL AT THE INTERSECTION OF STREET NAME 1 AND STREET NAME 2.
  7. THE CONTRACTOR SHALL PERFORM FINAL CLEANING AND REMOVE ALL EQUIPMENT FROM SITE
  8. THE CONTRACTOR SHALL COMPLY WITH THE FINAL PUNCH LIST PREPARED BY THE CITY'S INSPECTOR.
  9. THE CLOSE-OUT OF THE PROJECT.
  10. PAYMENT FOR MAINTENANCE OF TRAFFIC (NOT INCLUDING MOBILIZATION, PERMANENT SIGNING AND STRIPING) SHALL BE INCLUDED IN THE LUMP SUM ITEM 614 MAINTENANCE OF TRAFFIC.
  11. CONTRACTOR TO FURNISH AND INSTALL DRUMS TO CLOSE THE SOUTH BOUND LEFT LANE OF STREET NAME 4 AT ALL TIMES.





HORIZ SCALE



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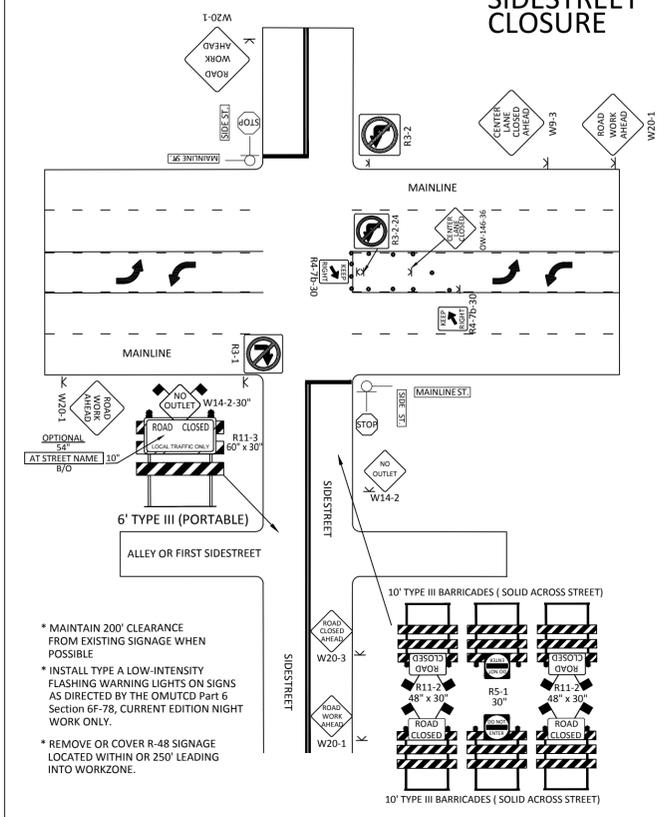
MAINTENANCE OF TRAFFIC

PROJECT NAME

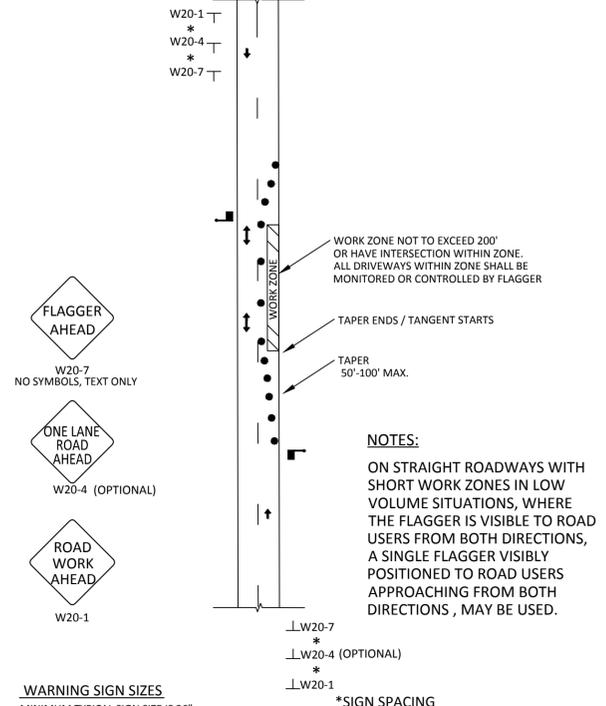


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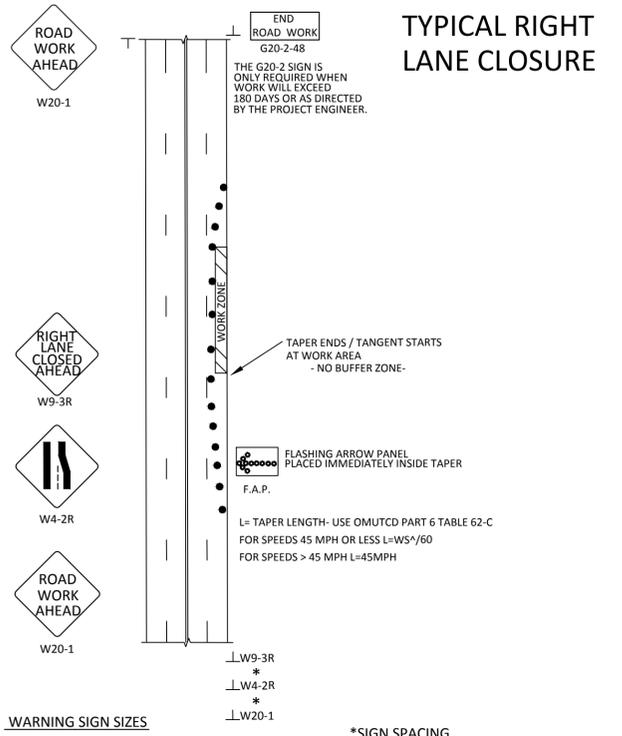
### TYPICAL SIDESTREET CLOSURE



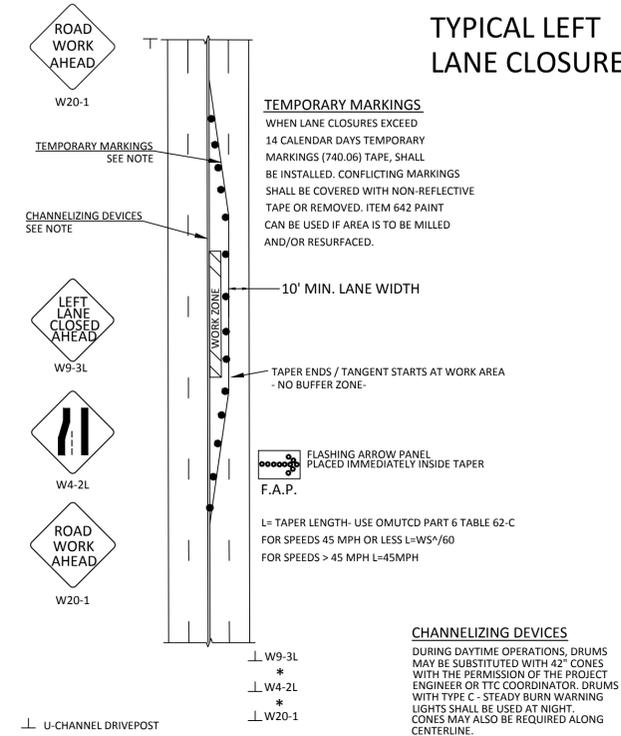
### LANE CLOSURE ON TWO-LANE ROAD USING FLAGGERS



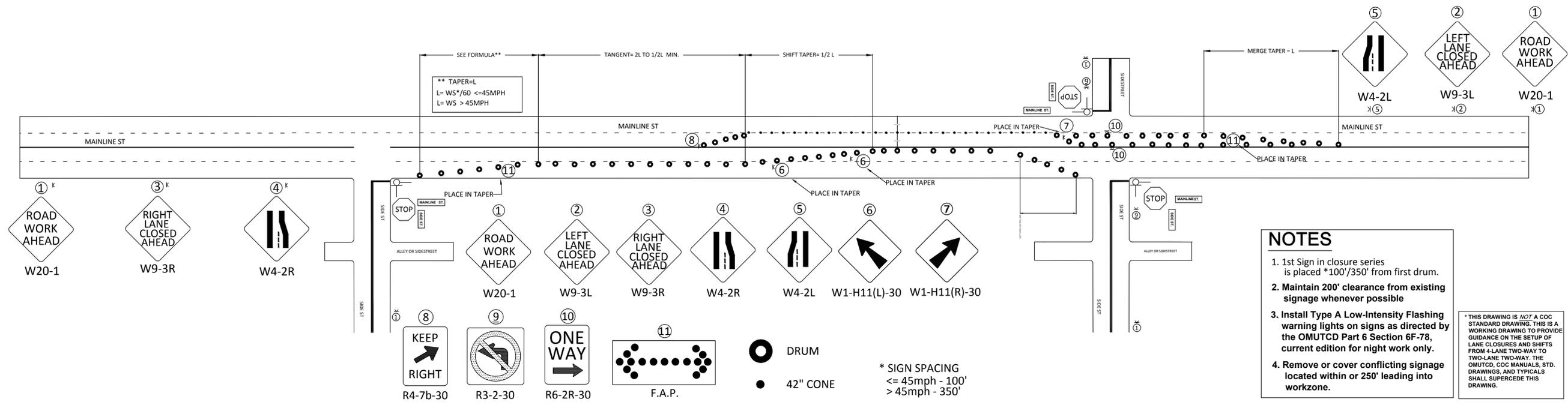
### TYPICAL RIGHT LANE CLOSURE



### TYPICAL LEFT LANE CLOSURE



## EXISTING 4 LANE - 2 WAY to 2 LANE - 2 WAY Using LANE CLOSURE PLUS SHIFT ACROSS CENTERLINE



- NOTES**
- 1st Sign in closure series is placed \*100'/350' from first drum.
  - Maintain 200' clearance from existing signage whenever possible
  - Install Type A Low-Intensity Flashing warning lights on signs as directed by the OMUTCD Part 6 Section 6F-78, current edition for night work only.
  - Remove or cover conflicting signage located within or 250' leading into workzone.

\* THIS DRAWING IS NOT A COC STANDARD DRAWING. THIS IS A WORKING DRAWING TO PROVIDE GUIDANCE ON THE SETUP OF LANE CLOSURES AND SHIFTS FROM 4-LANE TWO-WAY TO TWO-LANE TWO-WAY. THE OMUTCD, COC MANUALS, STD. DRAWINGS, AND TYPICALS SHALL SUPERCEDE THIS DRAWING.

REVISED 07/7/14  
 J:\Design and Construction\Design\Plan\_Review\SAMPLE SHEETS (E-Plan)\CAD Drawings\06\_01 MAINT OF TRAFFIC.dwg (MOT-3)

ESTIMATE OF QUANTITIES			
NOTE: These quantities have been provided as an estimate to the scope of work. The Contractor shall be solely responsible to evaluate the complete project as detailed in the notes, plans, and specifications and procedure necessary for the completion of the plan improvements and submit the total project cost accordingly.			
ITEM	QUANTITY	UNIT	DESCRIPTION
<b>STREET</b>			
201	Lump	Sum	Clearing and Grubbing
202	464	Lin. Ft.	Curb & Gutter Removed & Disposed of
202	253	Lin. Ft.	Concrete Curb Removed & Disposed of
202	354	Sq. Ft.	Walk Removed & Disposed of
202	180	Sq. Yd.	Asphalt Pavement Removed & Disposed of
202	65	Sq. Yd.	Concrete Pavement Removed & Disposed of
203	Lump	Sum	Excavation Including Embankment
203	1065	Sq. Yd.	Subgrade Compaction
204	5	Hour	Proof Rolling (Contingency)
254	1195	Sq. Yd.	Pavement Planing
301	379	Cu. Yd.	Asphalt Concrete Base
304	230	Cu. Yd.	Aggregate Base
305	236	Sq. Yd.	9" Portland Cement Concrete Base
305	1090	Sq. Yd.	7" Portland Cement Concrete Base
407	140	Gal.	Tack Coat
413	706	Lin. Ft.	Crack Seal, Hot Applied
448	120	Cu. Yd.	Asphalt Concrete, Surface Course (Medium Traffic), PG 64-22
448	455	Cu. Yd.	Asphalt Concrete, Intermediate Course (Medium Traffic), PG 64-22
452	27	Sq. Yd.	8" Non-Reinforced Portland Cement Concrete Pavement
601	5.5	Sq. Yd.	6" Concrete Paved Gutter
604	1	Each	Endwall - Precast (AA-S169) (1-12")
604	2	Each	Curb & Gutter Inlet, to be Reconstructed w/ Solid MH Cover
604	1	Each	Manhole, Type B, Class E
604	1	Each	Manhole, to be Reconstructed as Curb Inlet Manhole (AA-S121)
604	3	Each	Curb & Gutter Inlet (AA-S125)
604	1	Each	24" Diameter Catch Basin (AA-S131)
604	1	Each	Manhole, Adjusted to Grade (Storm)
605	2535	Lin. Ft.	4" Pipe Underdrain
608	6500	Sq. Ft.	Concrete Sidewalk
608	10	Each	Curb Ramps (Type)
608	10	Each	Detectable Warning
609	1730	Lin. Ft.	Combination Curb & Gutter, Type Standard
609	90	Lin. Ft.	Combination Curb & Gutter, Type Special 8"
609	485	Lin. Ft.	Curb, Straight 18"
609	1597	Lin. Ft.	Saw Cutting Existing Curb
609	9	Sq. Yd.	6" Concrete Traffic Island
614	Lump	Sum	Maintenance of Traffic
624	Lump	Sum	Mobilization
659	2500	Sq. Yd.	Permanent Seeding and Mulching within R/W
660	155	Sq. Yd.	Sodding
703	1	Cu. Yd.	No. 57 Aggregate - Compacted No. 1 & No. 2 Aggregate
807	4	Each	Valve Boxes, Adjusted to Grade
809	1	Each	Fire Hydrant, to be Relocated
810	1	Each	Fire Hydrant Extension
901	30	Lin. Ft.	12" Storm Pipe, R.C.P. 706.02 Class IV, with Type 1 Bedding
901	5	Lin. Ft.	12" Storm Pipe with Type 1 Bedding
<b>PAVEMENT MARKING &amp; SIGNING</b>			
621	97	Each	Raised Pavement Markers
630	332	Lin. Ft.	Ground Mounted Support, No. 3 Post
630	139.5	Sq. Ft.	Signs, Flat Sheet, Type G
630	3	Each	Removal of Existing Signs
644	Lump	Sum	Removal of Existing Pavement Markings
644	2766	Lin. Ft.	5" Centerline - Solid (Double Yellow)
644	240	Lin. Ft.	20" Stop Line (White)
644	331	Lin. Ft.	20" Transverse Line (Yellow)
644	2223	Lin. Ft.	10" Channelizing Line (White)
644	734	Lin. Ft.	5" Dashed Lane Line (White)
644	0	Lin. Ft.	5" Solid & Dashed Line (White)
644	264	Lin. Ft.	5" Edge Line (White)
644	1000	Lin. Ft.	10" Crosswalk Line (White)
644	25	Each	Arrow On Pavement (White)
644	12	Each	Word On Pavement (72" White)
647	14	Each	Reboundable Traffic Post, (Yellow) Installed
<b>SEDIMENT &amp; EROSION CONTROL</b>			
207	780	Lin. Ft.	Sediment Fence
207	Lump	Sum	Existing Sediment Fence Maintained As Per Plan
207	2	Each	Dandy Bag
207	16	Each	Beaver Dam
207	Lump	Sum	Existing Sediment Control Maintained As Per Plan
659	Lump	Sum	Seeding & Mulching
<b>LIGHTING</b>			
1000	2	Each	Light Pole Foundation, Removal, As Per Plan (MIS-23)
1000	2	Each	Foundation Reinforced 8', As Per Plan (MIS-81)
1000	836	Lin. Ft.	Street Light Circuit, #4AWG 5KV Cable (MIS-14)
1000	2	Each	Street Light Standard Relocation, As Per Plan (MIS-107)
1000	252	Lin. Ft.	2" Conduit, In Open Areas (MIS-15)
1000	1	Each	Pullbox, Medium Duty, 13"x24" (MIS-4)
1000	133	Lin. Ft.	2" Conduit, Under Street Pavement (MIS-17)
1000	2	Each	Clean and Relamp HPS Luminaires (MIS-68)
1000	1	Lump	System Removal, Existing Underground (MIS-75)

ITEM	QUANTITY	UNIT	TRAFFIC SIGNAL & INTERCONNECT
202	54	Lin. Ft.	Conduit Removed
202	1	Each	Removal of Existing Signal Cable
625	2	Each	Remove and Reset Pull Box
625	802	Lin. Ft.	Conduit, 2", 725.05, As Per Plan
625	45	Lin. Ft.	Conduit, 3", 725.05, As Per Plan
625	127	Lin. Ft.	Conduit, 2", 725.04, Jacked or Drilled
625	206	Lin. Ft.	Conduit, 3", 725.05, Jacked or Drilled
625	1,196	Lin. Ft.	Encased Interconnect Conduit Bank, 2-3", TC-2, SCH 40, As Per Plan
625	802	Lin. Ft.	Trench, As Per Plan
625	6	Each	Ground Rod, As Per Plan
625	5	Each	Pullbox, 725.08, 27" Round Concrete, As Per Plan
625	9	Each	Pullbox, As Per Plan
625	48	Lin. Ft.	No. 4 AWG, 600 Volt Distribution Cable, As Per Plan
625	583	Lin. Ft.	No. 8 AWG, 600 Volt Distribution Cable, As Per Plan
630	1	Each	Signs, As Per Plan
632		Each	Conduit Riser, 2" Diameter
632		Each	Vehicular Signal Head, LED, 3 Section, 12" Lens, 1 Way, As Per Plan
632	1	Each	Vehicular Signal Head, LED, 5 Section, 12" Lens, 1 Way, As Per Plan
632	1	Each	Vehicular Signal Head Removed For Storage
632	8	Each	Pedestrian Signal Head, As Per Plan
632		Each	Pedestrian Push Button
632	26	Each	Detector Loop, As Per Plan
632	3	Each	Loop Detector Unit, As Per Plan
632	2,123	Lin. Ft.	Loop Detector Lean in Cable, IMSA-50
632	1	Each	Microwave Unit, As Per Plan
632		Each	Covering Vehicular Signal Head, As Per Plan
632		Each	Covering of Pedestrian Signal Head, As Per Plan
632		Each	Covering of Pedestrian Pushbutton, As Per Plan
632	1	Each	Sleeve for Anchor Base Foundation, As Per Plan
632		Lin. Ft.	Signal Cable, 7-Conductor, No. 14 AWG
632	772	Lin. Ft.	Signal Cable, 9-Conductor, No. 14 AWG
632		Lin. Ft.	Messenger Wire, 7 Strand, 3/8" Diameter with Accessories
632	4	Each	Strain Pole Foundation, As Per Plan
632		Lin. Ft.	Power Cable, 3 Conductor, CU, #8 AWG, As Per Plan
632		Each	Strain Pole, Type TC-81.10, Anchor Base, (Des. 5, 30'), As Per Plan
632	1,563	Lin. Ft.	Interconnect Cable, 6 Pair, #19 AWG, PE-BJFA, As Per Plan
633	1	Each	Cabinet Foundation
633		Each	Controller Unit, TS2/A2, W/Cabinet, 8 Phase, P44, Base, As Per Plan
633	1	Each	Controller Work Pad
Special	1	Lump	Unwarranted Traffic Signal Actions



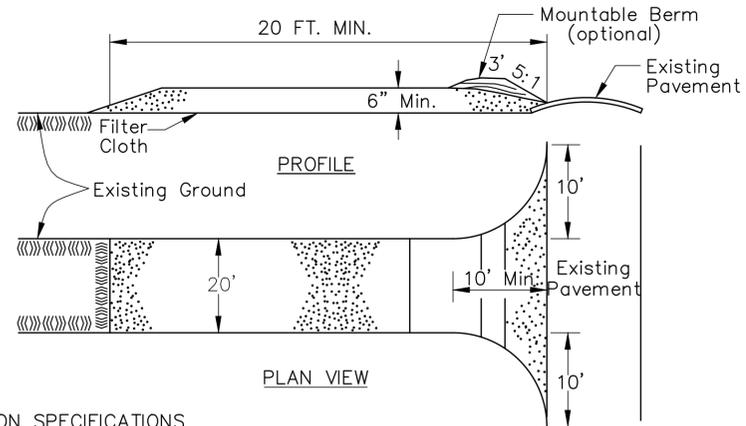
CALCULATED  
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ESTIMATE OF QUANTITIES

PROJECT NAME



### STABILIZED CONSTRUCTION ENTRANCE



#### CONSTRUCTION SPECIFICATIONS

1. Stone Size – Use 2 inch stone, or reclaimed or recycled concrete equivalent.
2. Length – As required.
3. Thickness – Not less than six (6) inches.
4. Width – Twenty (20) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth – will be placed over the entire area prior to placing of stone.
6. Surface Water – All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance – The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing – Wheels shall be cleaned to remove sediment prior to entrance onto public right-of-ways. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

#### Construction Sequence

1. Install required sediment fence and inlet protection on existing inlets as shown on Phase 1 Plan.
2. Install utilities and storm sewers. Provide inlet protection.
3. Construct proposed street and utilities.
4. Stabilize the disturbed areas per temporary and permanent seeding requirements.
5. Remove storm sewer inlet protection.

Note A: The Contractor shall be responsible for maintaining on-site drainage at all times during construction. No separate payment shall be made for maintaining drainage.

#### EROSION AND SEDIMENT CONTROL QUANTITIES

ITEM	TOTAL QUANTITY				UNIT	DESCRIPTION
	27	28	29	TOTAL		
207	-	225	3350	3575	LIN. FT.	PERIMETER FILTER FABRIC FENCE
207	-	1	-	8	EACH	CURB INLET PROTECTION
207	3	23	-	76	EACH	CATCH BASIN PROTECTION
207	-	15	4	36	EACH	FILTER FABRIC CATCH BASIN PROTECTION
207	7	2	2	11	EACH	ROCK CHECK DAM
207	-	-	1	1	EACH	STABILIZED CONSTRUCTION ENTRANCE
207	-	-	1	1	EACH	CONCRETE WASHOUT AREA

#### NOTE TO CONSULTANTS:

INCLUDE ALL ESC/SWP3 PAY ITEMS TO THE QUANTITY TABLE, SUCH AS, BUT NOT LIMITED TO, SITE STABILIZATION (SEED, SOD, GEOTEXTILES, STRAW, OR COMPOST BLANKETS, STRAW WATTLES, COMPOST FILTER SOCKS); TEMPORARY SEDIMENT RISERS AND SKIMMERS

#### LEGEND

	Catch Basin Protection		Perimeter Filter Fabric Fence
	Curb Inlet Protection		Stabilized Construction Entrance
	Filter Fabric Fence		Concrete Washout
	Structure Number		

This SWP3 plan must be posted on-site. A copy of the SWP3 plan and the approved OEPA storm water permit (with site specific NOI number) must be kept on-site at all times.

Direct discharge of sediment laden water to the city's sewer system or a receiving stream is a violation of Ohio EPA and City of Columbus regulations; the contractor will be held liable for the violation and subsequent fines.

**PAVEMENT CUTTING, SAWING AND EXCAVATION OPERATIONS NOTE:**  
 Pursuant to Phase II regulations of the NPDES amendment to the Clean Water Act of the United States of America, all public agencies and private contractors performing pavement-cutting operations on City of Columbus streets and roadways shall protect our environment from the diminutive discharges created by their pavement cutting operations.

This requirement includes but is not limited to wet or dry saw-cutting, jack hammering, excavation equipment use, etc. The public agency and/or private contractor work crews shall recover and dispose of particles, polluted waters, or other such small discharges resulting from their pavement cutting operations and protect all storm sewer inlets from receiving runoff of said diminutive discharges. The agency or contractor responsible for each pavement cutting activity shall be solely liable for Notice of Violations (NOV/s) and fines issued by city of Columbus and/or State of Ohio authorities.

Equipment, materials and methods shall be provided by the responsible public agency and/or private contractor to work crews performing the pavement cutting activity and made available to work crews for use in cleaning up the small discharges resulting from such cutting activities and preventing runoff. Additionally, work crews shall be trained to exercise and employ equipment, materials, and environmental protective measures, to prevent discharges from entering the City of Columbus storm sewer systems and watercourses. All pay and work items with pavement cutting, sawing, or excavation shall abide by this note.

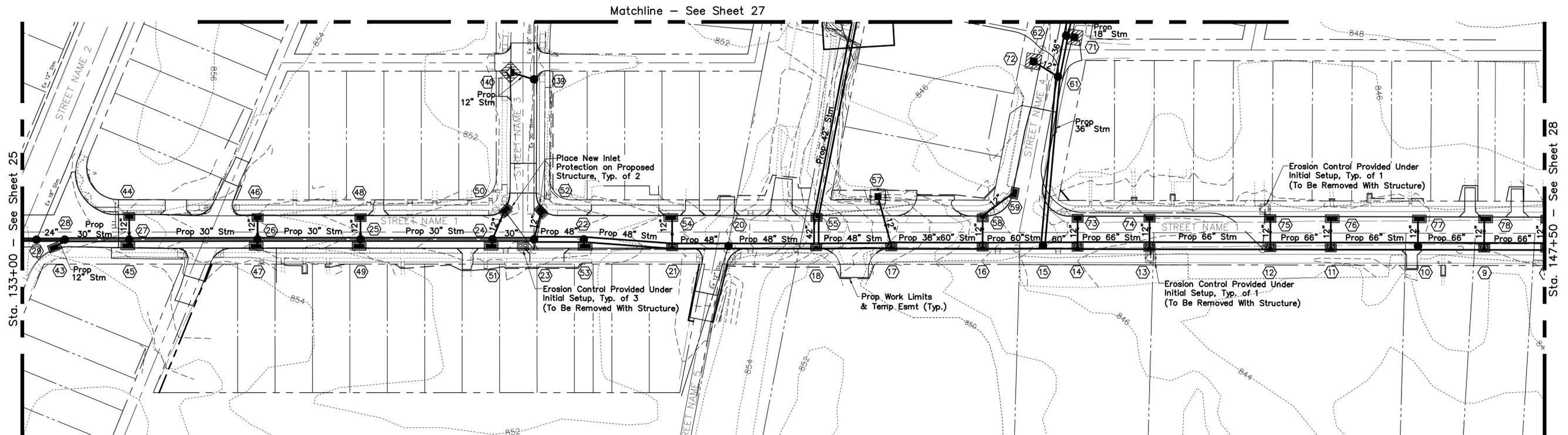
Moreover, if project plans, notes and /or drawings include a Stormwater Pollution Prevention Plan (SWP3) or a spill prevention/remediation plan; such plans shall be adhered to in addition to this note for all pavement cutting, sawing, or excavation operations on City of Columbus streets and roadways.

Suggested inlet protection is provided in the project documents under typical inlet protection dwg.1. The engineer shall approve alternative methods of inlet protection.

#### NOTE TO CONSULTANTS:

IF SWP3 OR SPILL PREVENTION/REMEDIAL PLANS ARE INCLUDED IN CONTRACT DOCUMENTS, THEY SHOULD BE CITED IN THE PARAGRAPH ABOVE BY VOLUME, PAGE OR SHEET NUMBERS; SO DIRECTING THE READER TO SUCH PLAN.

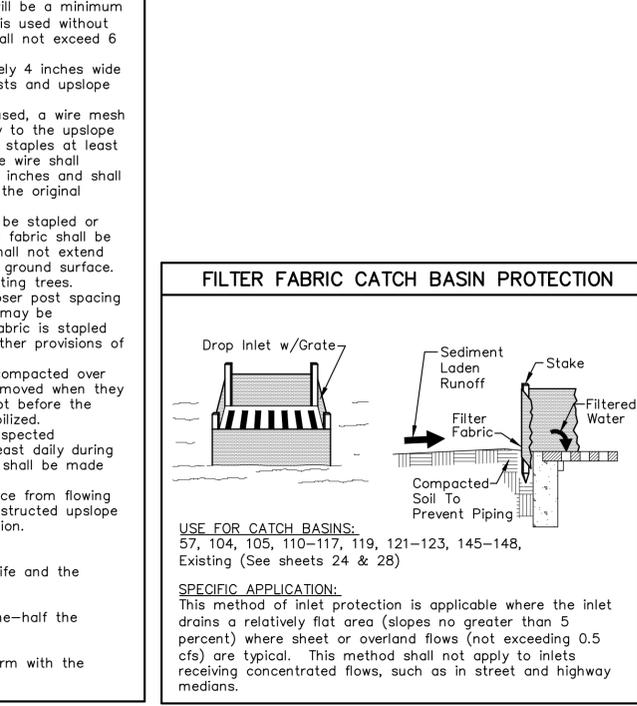
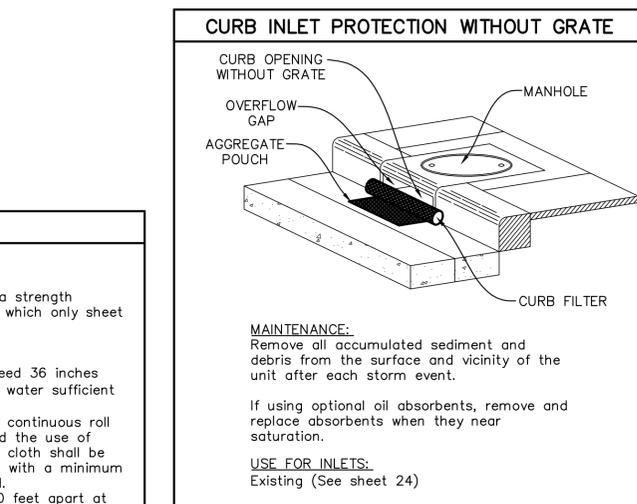
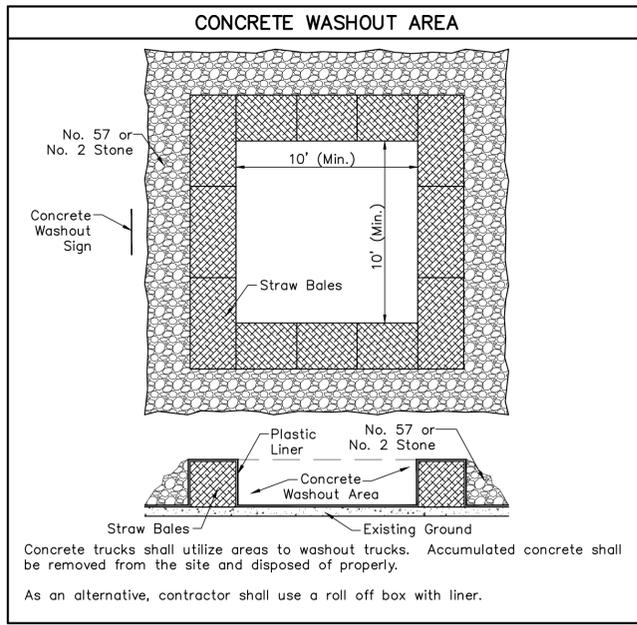
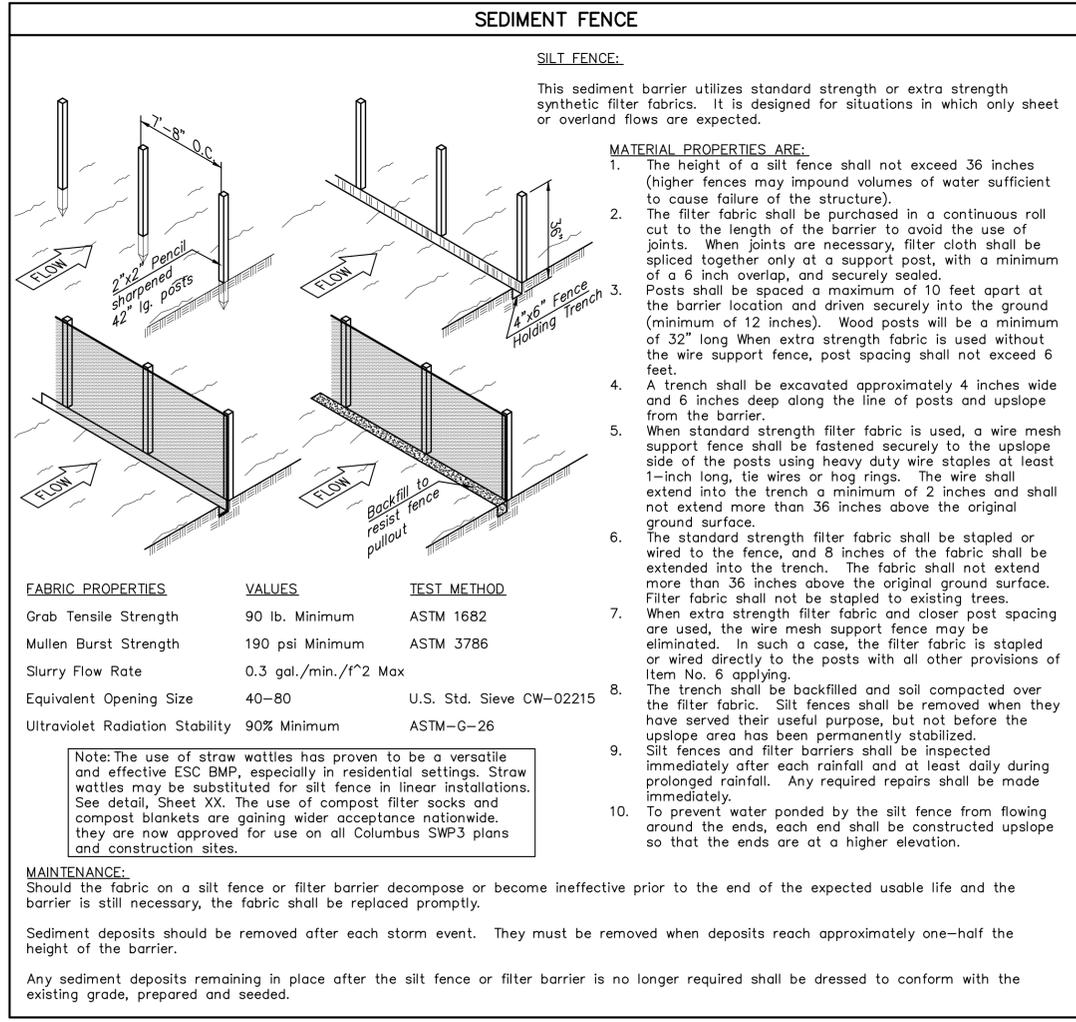
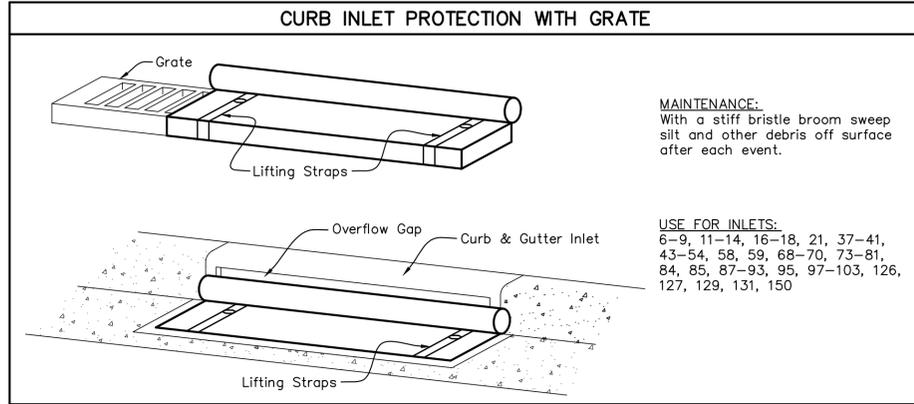
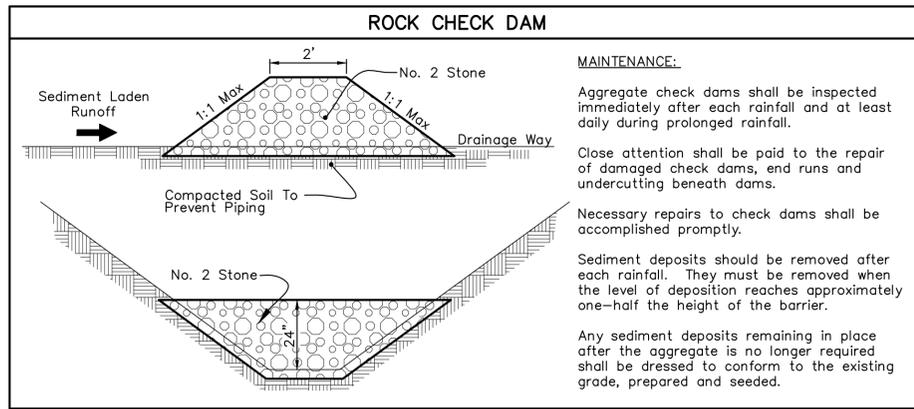
REVISED 7/2/14  
 J:\Design and Construction\Design\Plan Review\Sample Sheets (E-Plan)\CAD Drawings\08\_01 STORM WAT POLLUTION PLAN.dwg (SWPPP-1)



XXXX-E

PROJECT NAME  
 STORM WATER POLLUTION PREVENTION PLAN  
 HORIZ. SCALE  
 CALCULATED  
 CHECKED

REvised 6/27/14  
 J:\Design and Construction\Design\Plan Review\Sample Sheets (E-Plan)\CAD Drawings\08\_02 STORM WAT POLLUTION PLAN.dwg (SWPPP-2)



**CONTRACTOR RESPONSIBILITY:** Details have been provided on the plans in an effort to help the Contractor provide erosion and sedimentation control. The details shown on the plan shall be considered a minimum. Additional or alternate details may be found in the O.D.N.R. Manual "Rainwater and Land Development". The Contractor shall be solely responsible for providing necessary and adequate measures for proper control of erosion and sediment runoff from the site along with proper maintenance and inspection in compliance with the NPDES General Permit for Storm Water Discharges Associated with Construction Activity.

Prior to Construction Operations in a particular area, all sedimentation and erosion control features shall be in place. Field adjustments with respect to locations and dimensions may be made by the Engineer.

The Contractor shall place inlet and channel protection for erosion control immediately after construction of the inlets or channels which are not tributary to a sediment basin or dam.

It may become necessary to remove portions of the barrier during construction to facilitate the grading operations in certain areas. However, the barrier shall be in place in the evening or during any inclement weather.

The limits of seeding and mulching are as shown within the plans. Those areas disturbed outside the seeding limits shall be seeded and mulched at the Contractor's expense.

"Temporary seeding" No area for which grading has been completed or where a denuded area will remain idle for more than 21 days shall be left unseeded for longer than 7 days. If permanent seed is not applied at this time, temporary seeding shall be done at the following rates:

**March 1 to August 15**  
 Seed: Oats 2 lbs./1,000 Sq.Ft.  
 Fertilizer: (12:12:12) 25 lbs./1,000 Sq.Ft.  
 Mulch: (Straw or Hay) 2 tons/acre

**August 15 to November 1**  
 Seed: Annual Rye 2 lbs./1,000 Sq.Ft.  
 Fertilizer: (12:12:12) 25 lbs./1,000 Sq.Ft.  
 Mulch: (Straw or Hay) 2 tons/acre

**November 1 to March 1**  
 Mulch (ONLY): (Straw or Hay) 2 tons/acre

"Permanent seeding" shall be done between March 15 and September 15. If seeding is done between September 15 and March 15, it shall be classified as "Temporary Seeding." Permanent seed shall be 40% Kentucky Bluegrass, 40% Creeping Red Fescue, 20% Annual Ryegrass. Permanent seeding shall consist of fertilizing, watering and seeding rates indicated under Item 659. Seeding shall be applied within two (2) days after final grading or following seed bed preparation.

Rates of application of Item 659:  
 Seed: 4 lbs./1,000 Sq.Ft.  
 Fertilizer: (12:12:12) 20 lbs./1,000 Sq.Ft.  
 Mulch: Straw (Hay) 2 tons/acre (3 tons/acre)

**MAINTENANCE:** It is the Contractor's responsibility to maintain the sediment control features used on this project. The site shall be inspected periodically and within 24 hours of a significant rainfall. Records of these inspections shall be kept and made available to jurisdictional agencies if requested. Any sediment or debris which has reduced the efficiency of a structure shall be removed immediately. Should a structure or feature become damaged, the Contractor shall repair or replace at no additional cost to the Owner. Not all details shown on this sheet may be required for this project. Reference Sediment Control Plan.

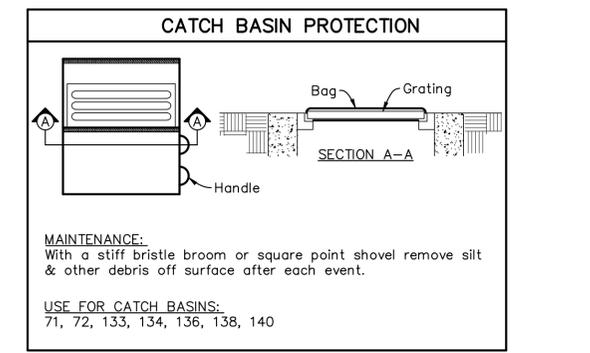
The cost for temporary channels, sediment dams, sediment basins, and other appurtenant earthmoving operations shall be included in the price bid for erosion and sedimentation control quantities.

Not all details shown on this sheet may be required for this project.  
 The Contractor shall be responsible to ensure that off-site tracking of sediments by vehicles and equipment is minimized. All such off-site sediment shall be cleaned up daily. Construction of stabilized construction entrances are a part of that responsibility.

Street Cleaning (on an as-needed basis) is required through the duration of this construction project. This includes sweeping, power cleaning and (if necessary) manual removal of dirt or mud in the street gutters.

The Contractor shall be responsible to ensure that no solid or liquid waste is discharged into stormwater runoff. Sediment-laden water shall be filtered through the use of sediment filtering fences or sedimentation basins prior to discharge to surface waters. Concrete trucks will not be allowed to wash out or discharge surplus concrete into or alongside rivers, streams, and creeks or into natural or man-made channels or swales leading thereto. Concrete truck wash water and surplus concrete shall be confined to areas approved by the Engineer; after solidifying, these waste materials shall be removed from the site.

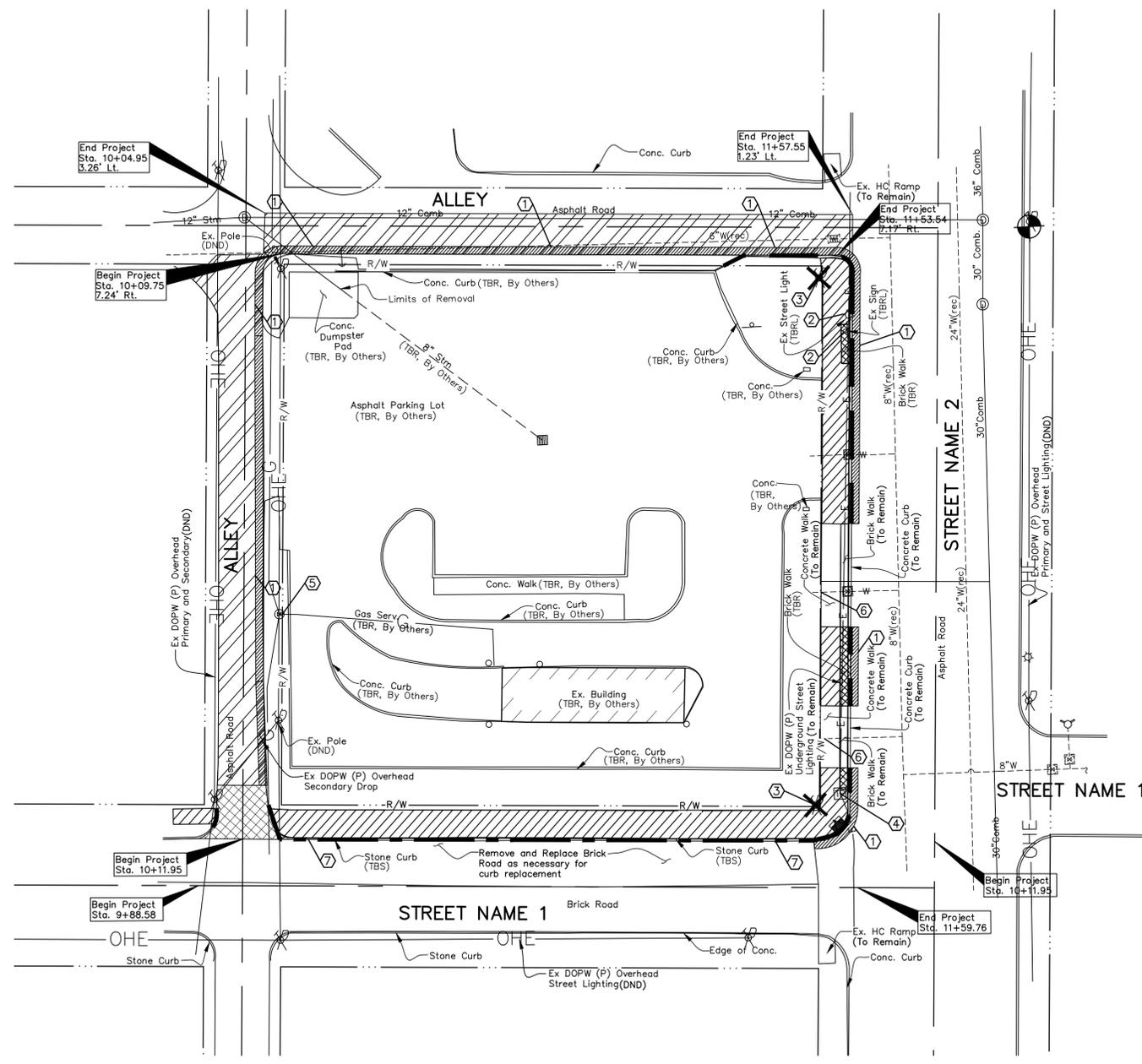
ALL EROSION & SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATION AT THE DIRECTION OF THE CITY OF COLUMBUS AND/OR OHIO EPA.



OEPA NOI #:  
 PLAN DESIGNER:  
 OWNER:  
 PROJECT DESCRIPTION:  
 EXISTING SITE CONDITIONS:  
 SITE DISTURBANCE:  
 RECEIVING STREAM:  
 ADJACENT AREAS:  
 CRITICAL AREAS:  
 EROSION AND SEDIMENT MEASURES:  
 PERMANENT STABILIZATION:  
 MAINTENANCE:  
 SCHEDULE:  
 SITE CONTACT:

ENTITY:  
 ADDRESS:  
 CONTACT NAME:  
 PHONE:  
 EMAIL:  
 ADDRESS:  
 CONTACT NAME:  
 PHONE:  
 EMAIL:  
 Project earth disturbance area is: XX acres  
 Alum Creek  
 The project corridor is located within a residential area and commercial area.  
 Work will occur in existing stream channels in the area of the proposed detention basin and box culvert at Parkwood Avenue.  
 Erosion and sediment will be controlled by the use of inlet protection at storm sewer inlets and the use of construction techniques to minimize the disturbance along the existing channel. To the extent practical, "clean water" from the upstream watershed will be diverted around the in-stream construction activities and sediment-laden water from the construction area will be filtered prior to being released to the downstream channel.  
 All disturbed areas shall be seeded and mulched. Geotextile reinforcement of earthen embankment is specified when in vicinity of channel banks. Hardened, non-erodible materials area also specified for channel bank reinforcement.  
 All erosion control devices are to be inspected by the construction superintendent daily and after rainfalls. Any damaged facilities are to be replaced / repaired immediately as may be necessary.  
 The Contractor shall provide a schedule of operations to the City. Sedimentation and erosion control features shall be placed and maintained in accordance with this schedule.  
 ENTITY:  
 PROJECT ENGINEER:  
 PHONE:  
 EMAIL:

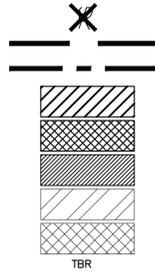
HORIZ. SCALE: 1" = 100'  
 VERT. SCALE: 1" = 10'  
 CALCULATED: [ ]  
 CHECKED: [ ]  
 STORM WATER POLLUTION PREVENTION PLAN  
 PROJECT NAME: XXXX-E



**RIGHT-OF-WAY DEMOLITION PLAN**  
 Scale: 1" = 20'

**LEGEND**

- Wood Pole, To Be Removed
- Concrete Curb, To Be Removed
- Stone Curb, To Be Removed
- Concrete Walk, To Be Removed
- Brick Walk, To be Removed (Bricks to be Salvaged)
- 2' Sawcut and Pavement Repair Per Detail A, Sheet X.
- 1 1/4" Pavement Mill and Overlay
- Remove Existing Pavement, Brick, & Base
- Item to be Removed
- Do not Disturb
- Item to be Relocated
- Item to be Salvaged
- Item to be Removed by Site Demolition Contractor (TBR, By Others)



**NOTES**

1. Existing storm sewers, sanitary sewers, and waterlines shall be protected and remain in place undisturbed unless specifically listed for abandonment and/or removal on the demolition plan.
2. Adjust all castings to top of finish grade.
3. The Contractor shall obtain all necessary permits prior to demolition.
4. It shall be the responsibility of the Contractor to remove all debris associated with this demolition, not pre-assigned for return to a specific organization, off-site prior to project completion. In no instance shall material be buried on the site.
5. Sawcut and remove existing concrete sidewalks and curb to the nearest joint. Connect proposed concrete to existing concrete with expansion joint material as needed.
6. The Contractor is responsible for the restoration of adjacent properties or structures that may become damaged as a result of demolition.
7. Any existing pavement disturbed beyond the work shown on the plans shall be repaired or replaced in accordance with Item 252 and City of Columbus Standard Drawing 1441 at the Contractors expense.
8. Protect all existing site features to remain. Repair any damages to the satisfaction of the owner at no additional cost.

**CODED NOTES**

- ① Sawcut existing pavement at limits of demolition with neat, straight lines.
- ② Refer to Improvement Plan, Sheet X for locations of Relocated Street Sign and Light Pole.
- ③ Wood Pole, To be Removed.
- ④ Existing Pull Box, To be Adjusted to Grade.
- ⑤ Existing Gas service to be cut and plugged at R/W. Refer to CC-XXXX.
- ⑥ Existing water service to be cut and plugged at the corporation stop by others. Refer to water service plan WSP-XXX.
- ⑦ The contractor shall remove, salvage and deliver to the City of Columbus the stone (Sandstone, Granite, etc.) curbing from the existing City streets as indicated by this plan. The curb sections shown on the plans to be salvaged shall be carefully removed from the existing street without unnecessary damage and cleaned for re-use.

Straight curb sections to be salvaged shall be at least 4 feet in length. Curved sections of any length shall be salvaged. All undamaged and cleaned curb sections shall be stacked (no more than 4 high) and secured to pallets the Contractor shall transport it to the City of Columbus, Divisions of Planning and Operations' 25th Avenue Maintenance Yard.

Contractor must call the Maintenance Yard Manager at (614) 645-8120 at least two weeks in advance to make arrangements for the delivery. Payment for this work shall be made after the undamaged curbing has been delivered to the 25th Avenue Maintenance Yard. The cost for all work required to remove, clean, salvage, and deliver curbing shall be included in the unit bid price for Item 202 - Curb Removed for Storage, as per the plans and paid for by the Linear Foot.

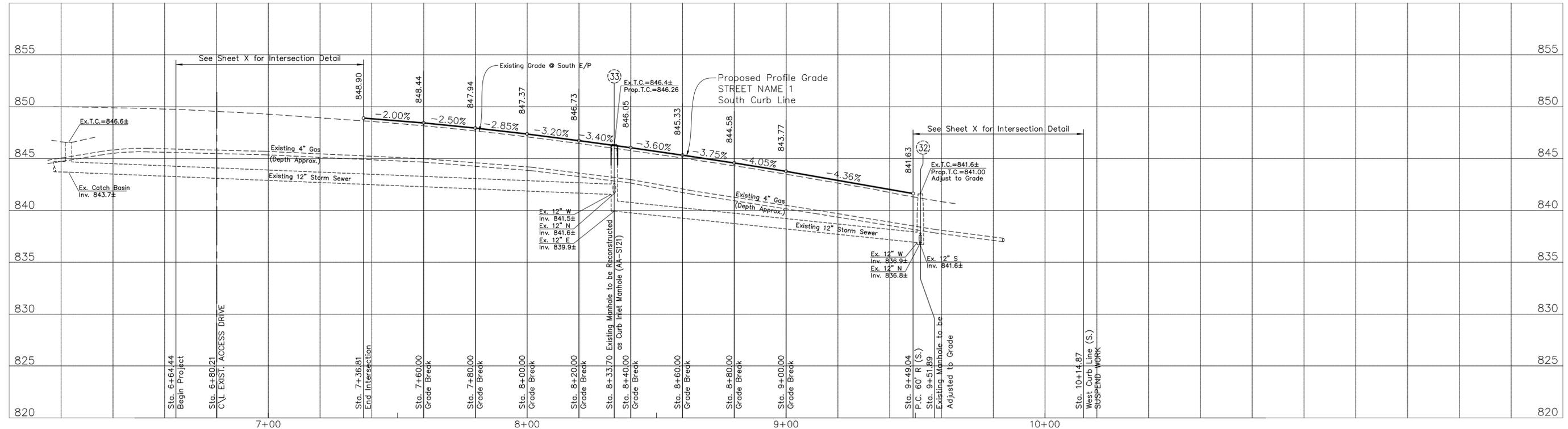
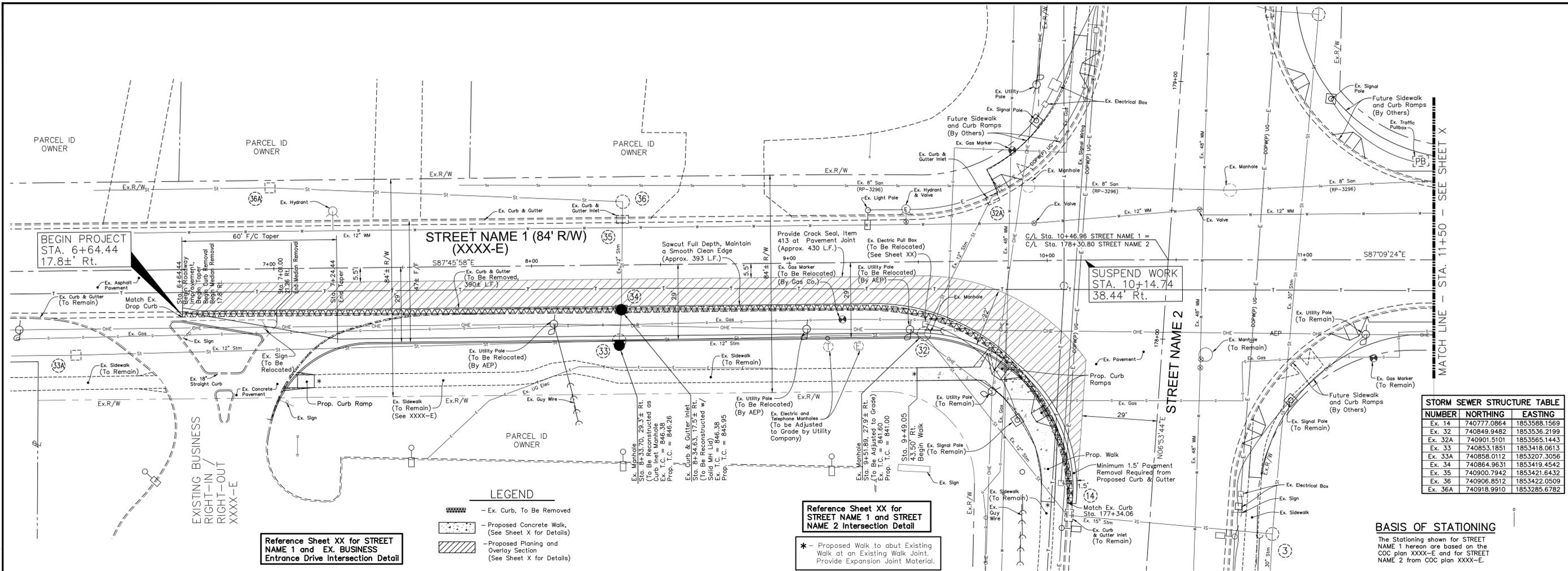


HORIZ. SCALE  
 0 10 20

CALCULATED  
 CHECKED

DEMOLITION PLAN

PROJECT NAME



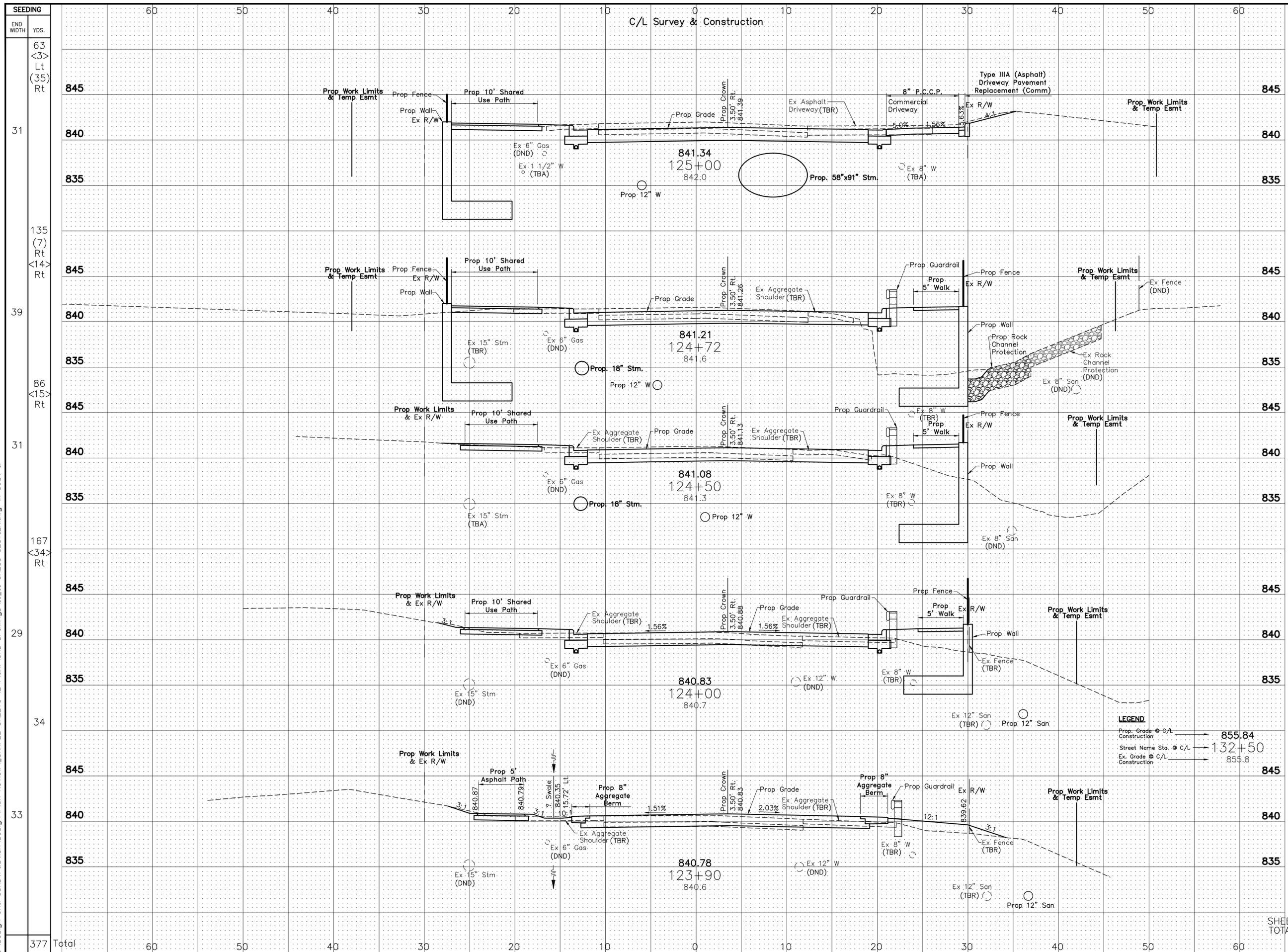
Reference Sheet XX for STREET NAME 1 and EX. BUSINESS Entrance Drive Intersection Detail

Reference Sheet XX for STREET NAME 1 and STREET NAME 2 Intersection Detail

BASIS OF STATIONING  
 The Stationing shown for STREET NAME 1 hereon are based on the COC plan XXXX-E and for STREET NAME 2 from COC plan XXXX-E.

REVISED 12/2/11

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STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
125+00	82	29	73	49
124+72	58	66	48	35
124+50	59	20	59	20
124+00	53	19	53	19
123+90	43	11	43	11
<b>Total</b>	<b>309</b>	<b>142</b>	<b>309</b>	<b>142</b>

**CROSS SECTIONS STREET NAME 1 STA. 123+50 TO STA. 125+00**

**PROJECT NAME**

HORIZ. SCALE: 1" = 20'

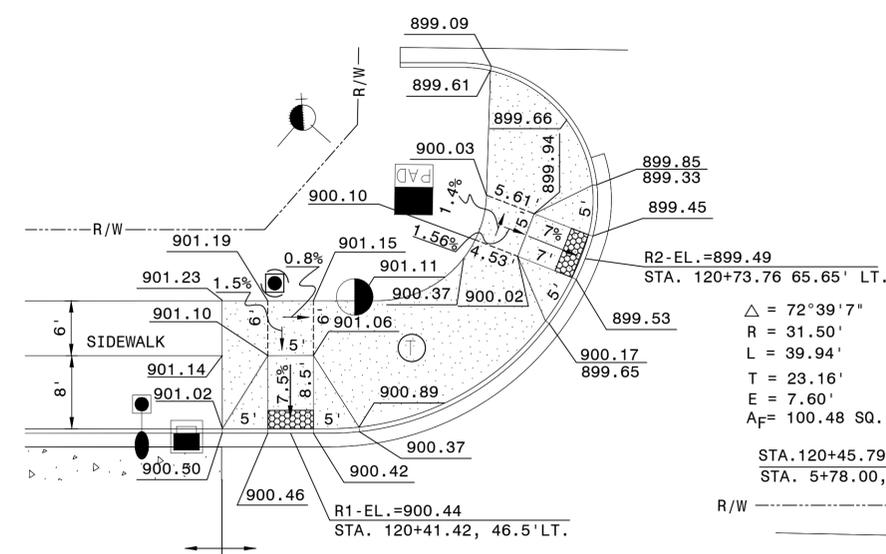
VERTICAL SCALE: 1" = 5'

CALCULATED

CHECKED

SHEET TOTAL: XXXX-E

NOTES:  
 1. \*\* CENTERLINE OF RAMP SHALL BE SET WITH STATION/OFFSET; PROJECT LINE PERPENDICULAR TO CENTERLINE OF ROAD TO ARRIVE AT THE RAMP CENTERLINE STATION.  
 2. 8" WALK SHALL BE PLACED AT THE INTERSECTIONS OF ARTERIAL ROADWAYS PER STD DWG 2303



SCALE 1" = 10'

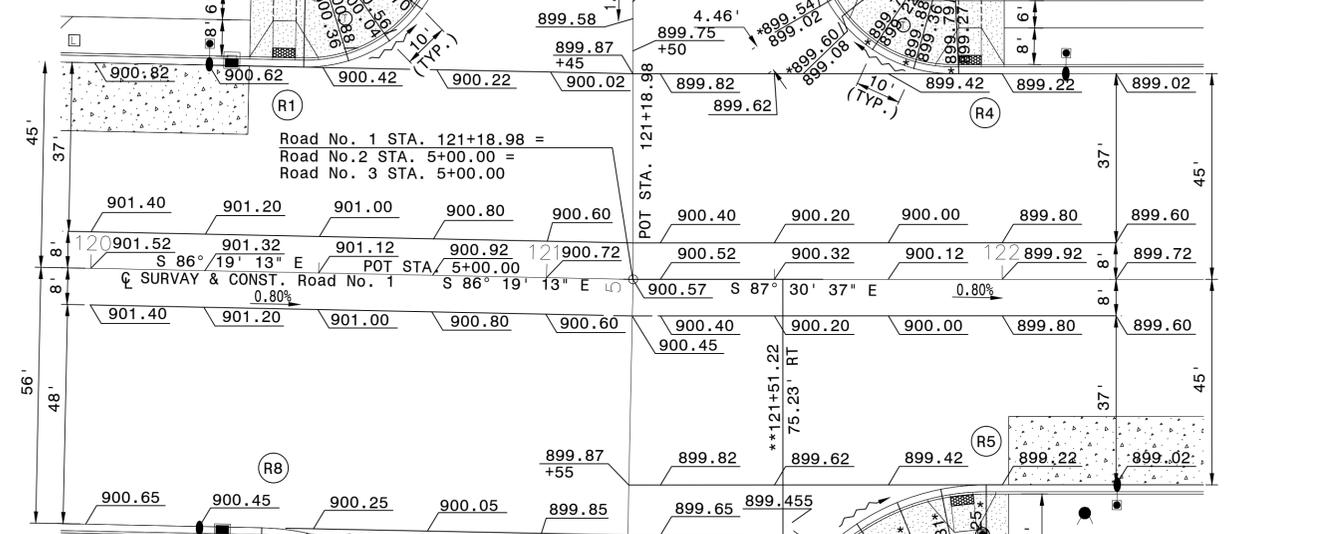
$\Delta = 54^{\circ}15'55"$   $\Delta = 53^{\circ}00'16"$   
 R = 16.50' R = 15.00'  
 L = 15.63' L = 14.00'  
 T = 8.46' T = 7.48'  
 E = 2.04' E = 1.76'  
 A<sub>F</sub> = 10.59 SQ. FT. A<sub>F</sub> = 8.12 SQ. FT.

$\Delta = 72^{\circ}39'7"$   
 R = 31.50'  
 L = 39.94'  
 T = 23.16'  
 E = 7.60'  
 A<sub>F</sub> = 100.48 SQ. FT.

$\Delta = 47^{\circ}09'48"$   $\Delta = 69^{\circ}35'57"$   
 R = 15.00' R = 16.50'  
 L = 12.48' L = 20.04'  
 T = 6.55' T = 11.47'  
 E = 1.36' E = 3.59'  
 A<sub>F</sub> = 5.59 SQ. FT. A<sub>F</sub> = 23.56 SQ. FT.

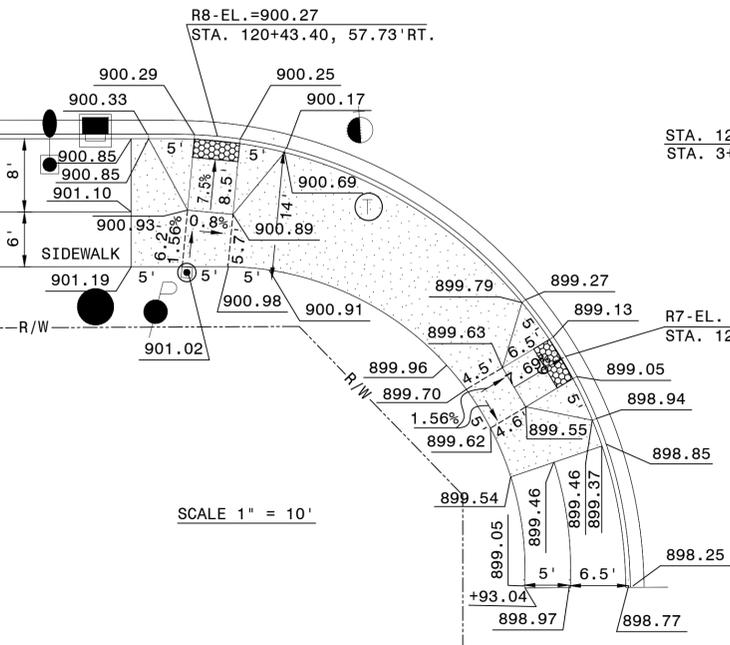
$\Delta = 62^{\circ}40'53"$   
 R = 31.50'  
 L = 34.46'  
 T = 19.18'  
 E = 5.38'  
 A<sub>F</sub> = 61.50' SQ. FT.

STA. 120+60.11, 72.03' LT.  
 STA. 5+73.23, 57.36' LT.  
 STA. 120+45.79, 76.50' LT.  
 STA. 5+78.00, 71.56' LT.  
 STA. 121+76.05, 69.0' LT.  
 STA. 5+73.23, 57.07' RT.  
 STA. 121+89.05, 76.47' LT.  
 STA. 5+76.47, 70.07' RT.



$\Delta = 89^{\circ}34'04"$   
 R = 51.50'  
 L = 80.51'  
 T = 51.11'  
 E = 21.06'  
 A<sub>F</sub> = 559.25 SQ. FT.

$\Delta = 89^{\circ}06'24"$   
 R = 51.50'  
 L = 80.09'  
 T = 50.70'  
 E = 20.77'  
 A<sub>F</sub> = 548.82 SQ. FT.

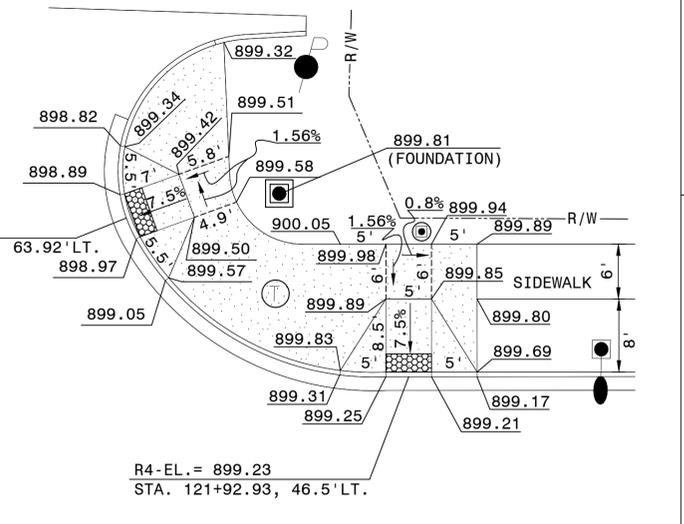


SCALE 1" = 10'

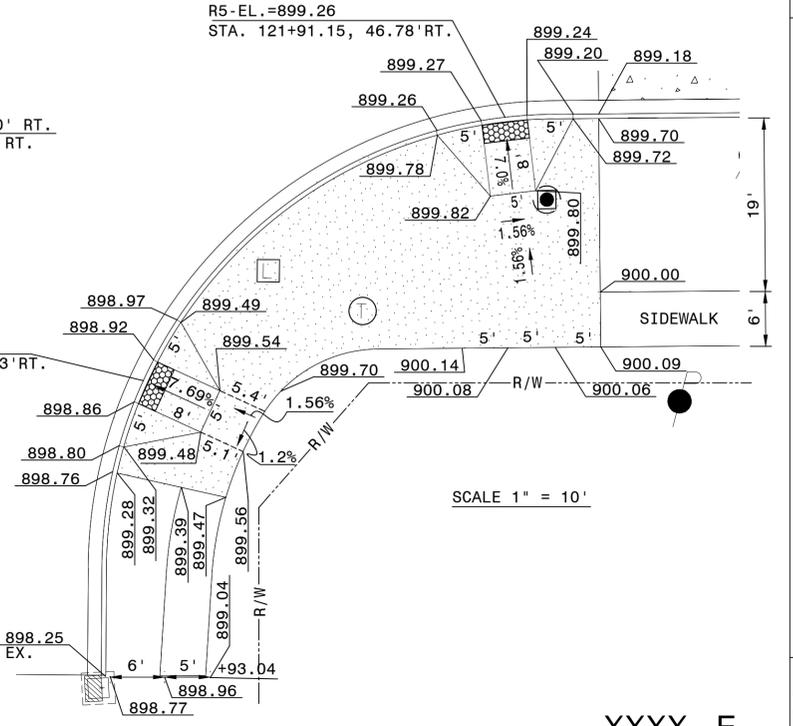
STA. 120+38.65, 107.5' RT.  
 STA. 3+92.50, 80.33' LT.  
 STA. 120+43.40, 57.73' RT.  
 STA. 120+81.40, 81.85' RT.

Road No. 1 AT Road No. 2/Road No. 3.  
 SCALE 1" = 20'

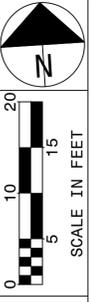
\* = TC ELEVATION/EP ELEVATION  
 \* = TC ELEVATION/EP ELEVATION



SCALE 1" = 10'



SCALE 1" = 10'



INTERSECTION & CURB RAMP DETAILS

PROJECT NAME

X  
XX

XXXX - E

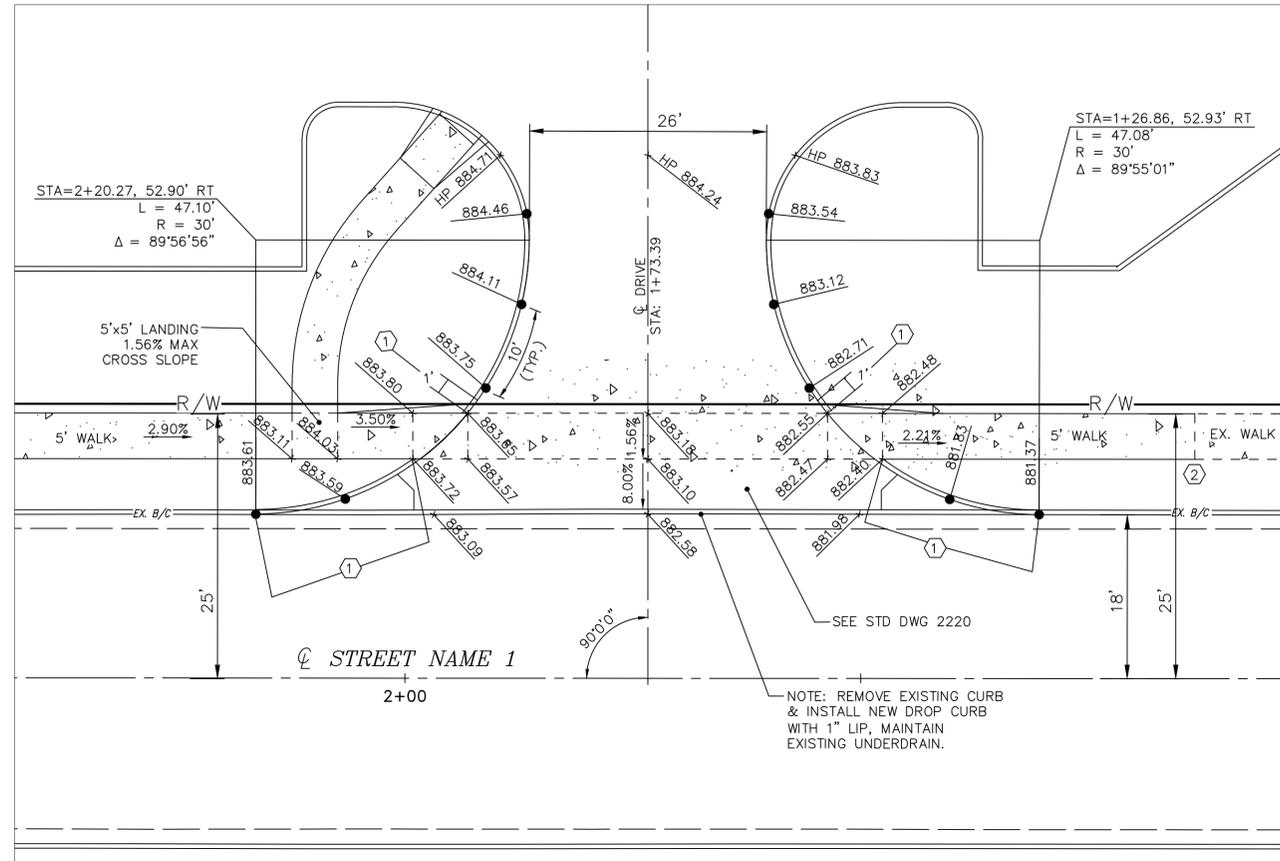
**LEGEND**

NOTES:  
ALL SPOT ELEVATIONS SHOWN ALONG THE CURB REPRESENT THE BOTTOM OF CURB ELEVATION.

 CONCRETE

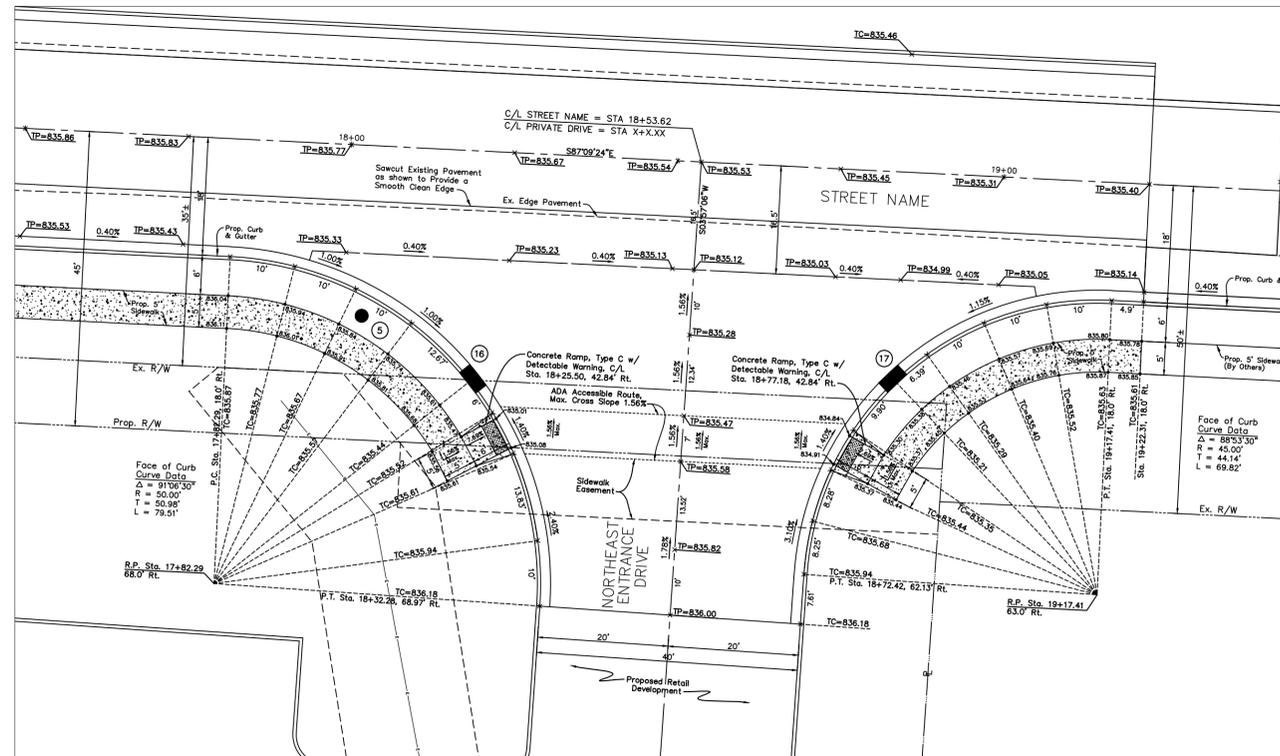
KEYED NOTES:

- ① TAPER CURB FROM 6" TO 0" IN DISTANCE SHOWN
- ② SAWCUT EXISTING SIDEWALK AT NEAREST JOINT & INSTALL EXPANSION JOINT



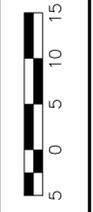
DETAIL - DRIVE STREET NAME 1 @ STATION 1+73.39

Drive designed as Commercial Drive per Std Dwg 2203 (drop curb w/ 1" lip)



DETAIL - DRIVE STREET NAME 1 @ STATION 18+53.62

Drive designed as a Private Street (No drop curb)



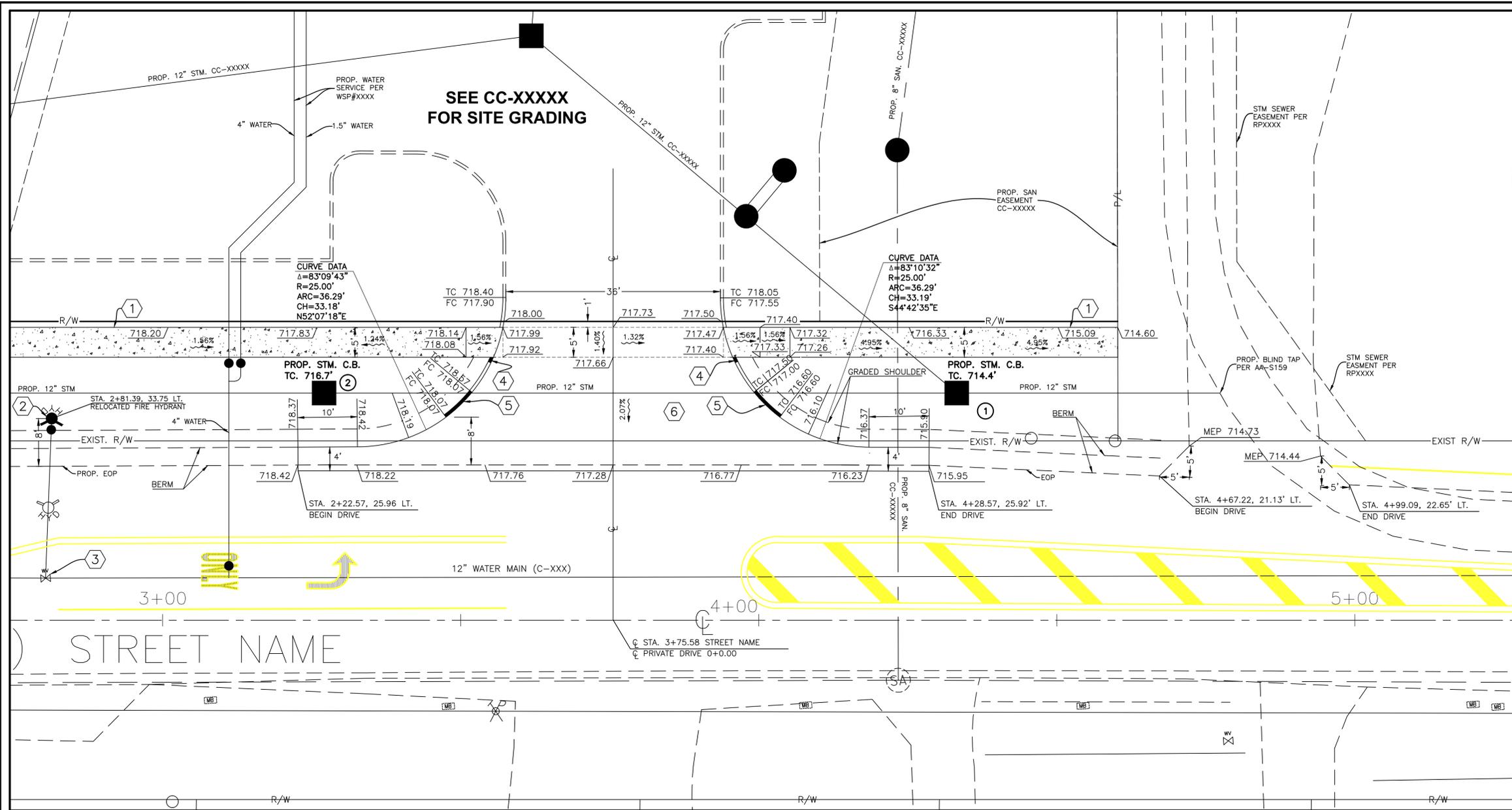
CALCULATED  
ABC  
CHECKED  
ABC

DETAIL-DRIVE  
CURBED STREET

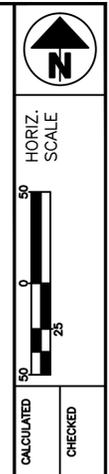
PROJECT NAME



Revised 5/16/14  
 J:\Design and Construction\Design\Plan\_Review\SAMPLE SHEETS (E-Plan)\CAD Drawings\11.11 Detail Drive (Non-Curbed Road)\11.11 Detail Drive (Non-Curbed Road).dwg (Detail-Drives (Non-Curbed Road))



PROPOSED STORM STRUCTURES				
REFERENCE SHEET	NO.	STATION	OFFSET	DESCRIPTION
17	1	4+33.22	38.0' LT	CATCH BASIN, AA-S133
17	2	3+27.08	38.0' LT	CATCH BASIN, AA-S133



CALCULATED  
 CHECKED  
 DETAIL - DRIVE  
 NON-CURBED STREET

**DETAIL - DRIVE - STREET NAME**

**@ C STA. 3+75.58**

SCALE: 1"=10'

**KEYED NOTES**

- ① PROPOSED STANDARD SIDEWALK PER STD DWG 2300.
- ② PROPOSED FIRE HYDRANT (TYPE 'A'). CONTRACTOR TO REUSE EXISTING FIRE HYDRANT IF PERMITTED BY DOPW (WATER).
- ③ EXISTING WATER VALVE. ADJUST TO GRADE.
- ④ TAPER CURB FROM 6" TO 0" OVER 2'
- ⑤ TAPER CURB FROM 6" TO 0" OVER 6'
- ⑥ PAVEMENT BUILDUP FOR DRIVE PER STD DWG 2208  
 ITEM 448 - 4" Asphalt Concrete, Surface Course (Medium Traffic) PG64-22  
 ITEM 448 - 4" Asphalt Concrete, Intermediate Course (Medium Traffic) PG64-22  
 ITEM 304 - 4" Aggregate Base

STANDARD ABBREVIATIONS	
XXX.XX	= PROPOSED PAVEMENT GRADE ELEVATION
TC XXX.XX FC XXX.XX	= PROPOSED TOP OF CURB/FACE OF CURB ELEVATION
METC XXX.XX	= MEET EXISTING TOP OF CURB
MEP XXX.XX	= MEET EXISTING PAVEMENT
EX XXX.XX	= EXISTING GRADE
EX XXX.XX(TC)	= EXISTING TOP OF CURB GRADE

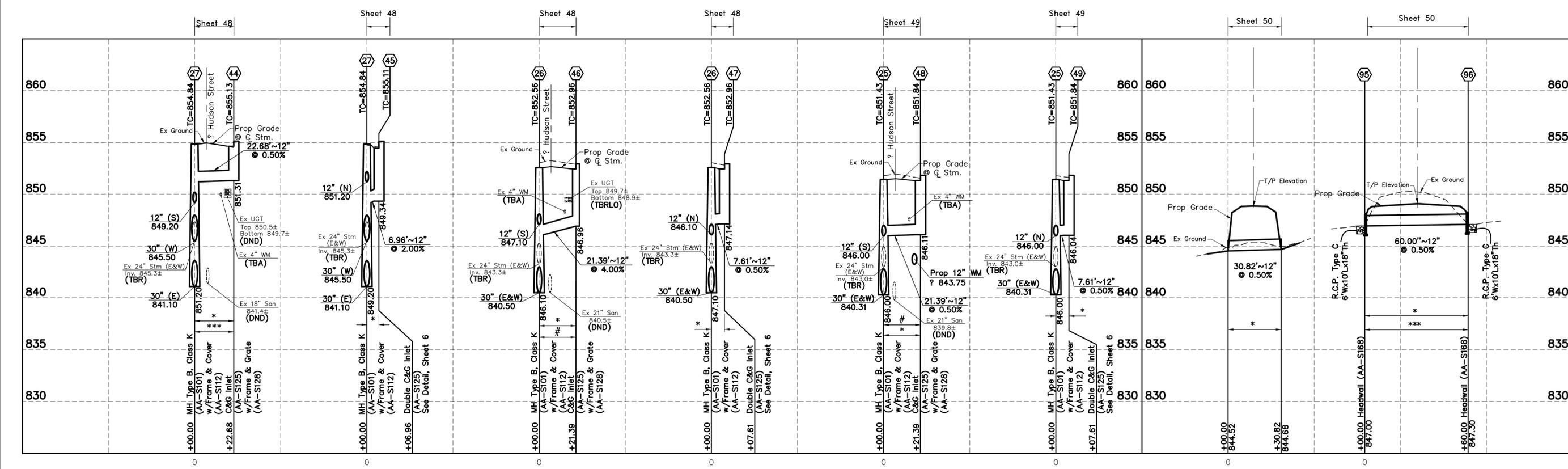
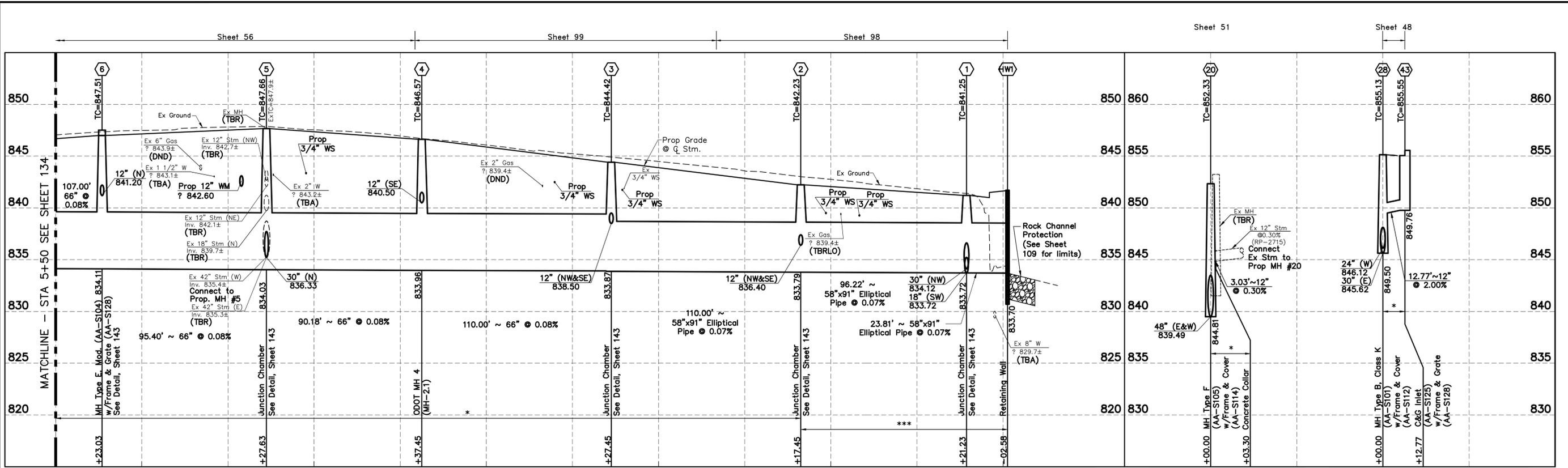
**LEGEND**

- ⊕ EXIST. SANITARY MANHOLE
- ⊕ EXIST. STORM MANHOLE
- ⊕ EXIST. CATCH BASIN
- ⊕ EXIST. GAS VALVE
- ⊕ EXIST. WATER VALVE
- ⊕ EXIST. FIRE HYDRANT
- ⊕ EXIST. POWER POLE
- ⊕ EXIST. LIGHT POLE
- ⊕ EXIST. GUY POLE
- ⊕ EXIST. TRAFFIC SIGN
- ⊕ EXIST. TRAFFIC LIGHT
- OTL— —GEL— EXIST. OVERHEAD ELECTRIC/TELEPHONE LINE
- EX GAS— EXIST. GAS LINE
- EX SAN— EXIST. SANITARY LINE
- EX STORM— EXIST. STORM LINE
- EX WATER— EXIST. WATER LINE

PROJECT NAME  
 XXXX-E

REVISED 11/13/14

J:\Design and Construction\Design\Plan Review\Sample Sheets (E-Plan)\CAD Drawings\12\_05 STORM SEWER PROFILE.dwg (Storm Profiles)



NOTE: For Curb & Gutter Inlets, TC = Top of Curb = Top of Casting

- \* Compacted Granular Backfill Per Item 912
- \*\* Backfill Per Item 911
- \*\*\* Concrete Encasement Per Item 910
- # Watertight joints per 901.15 and place trench dams per 901.11

Residential Drive at Street Name X (14+45.55, Lt)

Commercial Drive at Street Name X (50+14.57, Rt)



HORIZ. VERTICAL SCALE

0 5 10 15 20 25 30

CALCULATED CHECKED

**STORM SEWER PROFILES**

**PROJECT NAME**

XXXX-E

STORM SEWER COORDINATE DATA							
PHASE	STRUCTURE	PROPOSED			AS BUILT		
		NORTHING	EASTING	ELEVATION	NORTHING	EASTING	ELEVATION
1	HW1	765443.1428	1868084.5487	XXX.XX			
	1	765463.1414	1868119.1381	XXX.XX			
	2	765515.8380	1868140.5214	XXX.XX			
	3	765623.4468	1868144.0679	XXX.XX			
	4	765641.4017	1868016.9000	XXX.XX			
	5	765744.2256	1868022.9199	XXX.XX			
	6	765854.9803	1868029.4042	XXX.XX			
	7	765950.8717	1868035.0182	XXX.XX			
	8	766068.6700	1868041.9149	XXX.XX			
	9	766234.4419	1868051.6202	XXX.XX			
	10	766227.4869	1868170.4167	XXX.XX			
	11	766296.3689	1868174.4495	XXX.XX			
	12	766387.2134	1868179.7681	XXX.XX			
	13	766394.1684	1868060.9715	XXX.XX			
14	766551.8983	1868070.2060	XXX.XX				
2	15	766645.0399	1868075.6591	XXX.XX			
	16	766745.6008	1868080.9619	XXX.XX			
	17	766851.6598	1868083.0556	XXX.XX			
1	18	765453.6270	1868144.5450	XXX.XX			
	19	765442.5894	1868173.5139	XXX.XX			
	20	765387.2464	1868171.8527	XXX.XX			
	21	765622.4240	1868161.5380	XXX.XX			
	22	765620.6121	1868192.4850	XXX.XX			
	23	765846.5320	1868174.6587	XXX.XX			
	24	765844.7202	1868205.6057	XXX.XX			
	25	766214.9569	1868196.2285	XXX.XX			
	26	766213.1450	1868227.1755	XXX.XX			
	27	766294.8201	1868200.9042	XXX.XX			
	28	766293.0083	1868231.8512	XXX.XX			
2	29	766752.6450	1868833.2432	XXX.XX			
	30	766758.9864	1868724.9287	XXX.XX			
	31	766760.7982	1868693.9817	XXX.XX			
	32	766761.8650	1868675.7609	XXX.XX			
	33	766768.4254	1868563.7047	XXX.XX			
	34	766826.3468	1868566.7439	XXX.XX			
	35	766777.8152	1868403.3220	XXX.XX			
	36	766837.9665	1868402.4935	XXX.XX			
	37	766943.0988	1868403.6609	XXX.XX			
	38	766723.1954	1868831.5190	XXX.XX			
	39	766692.2484	1868829.7072	XXX.XX			
	40	767113.2193	1868697.0844	XXX.XX			
	41	766732.9559	1868664.8045	XXX.XX			
	42	766702.0089	1868662.9927	XXX.XX			
	43	766732.5518	1868402.2517	XXX.XX			
	44	766702.8258	1868411.0473	XXX.XX			
	45	766845.1246	1868280.2281	XXX.XX			
1	Ex 4	765278.0020	1867824.6270	XXX.XX			
	46	765276.6194	1867844.5792	XXX.XX			
	47	765325.3081	1867876.0976	XXX.XX			
	EW1	765356.7696	1867896.4641	XXX.XX			
	Ex 2	765374.4739	1867690.9458	XXX.XX			
	48	765501.2345	1867710.4558	XXX.XX			
	HW2	765509.1319	1867762.5710	XXX.XX			

STORM SEWER DATA				
PHASE	STRUCTURE	DIRECTION	DISTANCE	SIZE
1	HW1-1	N 59°57'53" E	39.95'	36"
	1-2	N 22°05'11" E	56.87'	36"
	2-3	N 01°53'16" E	107.67'	30"
	3-4	N 81°57'49" W	128.43'	30"
	4-5	N 03°21'02" E	103.00'	30"
	5-6	N 03°21'02" E	110.94'	30"
	6-7	N 03°21'02" E	96.06'	30"
	7-8	N 03°21'02" E	118.00'	30"
	8-9	N 03°21'02" E	166.06'	30"
	9-10	S 86°38'58" E	119.00'	24"
	10-11	N 03°21'02" E	69.00'	24"
	11-12	N 03°21'02" E	91.00'	24"
	12-13	S 86°38'58" E	119.00'	24"
	13-14	N 03°21'02" E	158.00'	18"
2	14-15	N 03°21'02" E	93.30'	15"
	15-16	N 03°01'07" E	100.70'	15"
	16-17	N 01°07'51" E	106.08'	15"
1	1-18	S 69°28'12" E	27.13'	18"
	18-19	S 69°28'12" E	31.00'	15"
	19-20	S 01°43'10" W	55.37'	12"
	3-21	N 86°38'58" W	17.50'	12"
	21-22	S 86°38'58" E	31.00'	12"
	6-23	S 86°40'17" E	145.50'	12"
	23-24	S 86°38'58" E	31.00'	12"
	10-25	S 64°06'23" E	28.69'	12"
	25-26	S 86°38'58" E	31.00'	12"
	11-27	S 86°38'58" E	26.50'	15"
	27-28	S 86°38'58" E	31.00'	12"
	Ex 3B-29	N 86°38'58" W	17.00'	36"
	29-30	N 86°38'58" W	108.50'	36"
30-31	N 86°38'58" W	31.00'	36"	
31-32	N 86°38'58" W	18.25'	36"	
32-33	N 86°38'58" E	112.25'	36"	
33-34	N 03°00'13" E	58.00'	30"	
33-35	N 86°38'58" W	160.66'	30"	
35-36	N 00°47'21" W	60.16'	24"	
36-37	N 00°38'10" E	105.14'	24"	
29-38	S 03°21'02" W	29.50'	12"	
38-39	S 03°21'02" W	31.00'	12"	
32-40	N 03°28'23" E	352.00'	15"	
32-41	S 20°45'23" W	30.92'	12"	
41-42	S 03°21'02" W	31.00'	12"	
35-43	S 01°21'16" W	45.28'	12"	
43-44	S 16°28'58" E	31.00'	12"	
36-45	N 86°38'58" W	122.47'	12"	
1	Ex 4-46	S 86°02'09" E	20.00'	24"
	46-47	N 32°55'01" E	58.00'	18"
	47-EW1	N 32°55'01" E	37.48'	12"
	Ex 2-48	N 8°44'59" E	128.25'	18"
	48-HW2	N 81°22'59" E	52.71'	12"

\* Horizontal Reference Datum = NAD 83 (1986 Adj.) (Ohio South Zone)

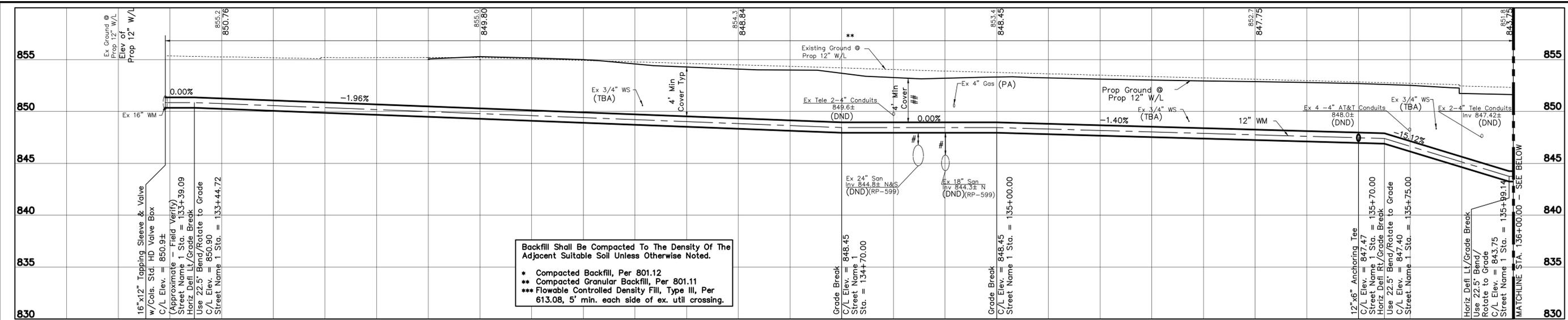
PROJECT NAME

STORM SURVEY COORDINATE DATA

CALCULATED  
CHECKED

HORIZ.  
SCALE

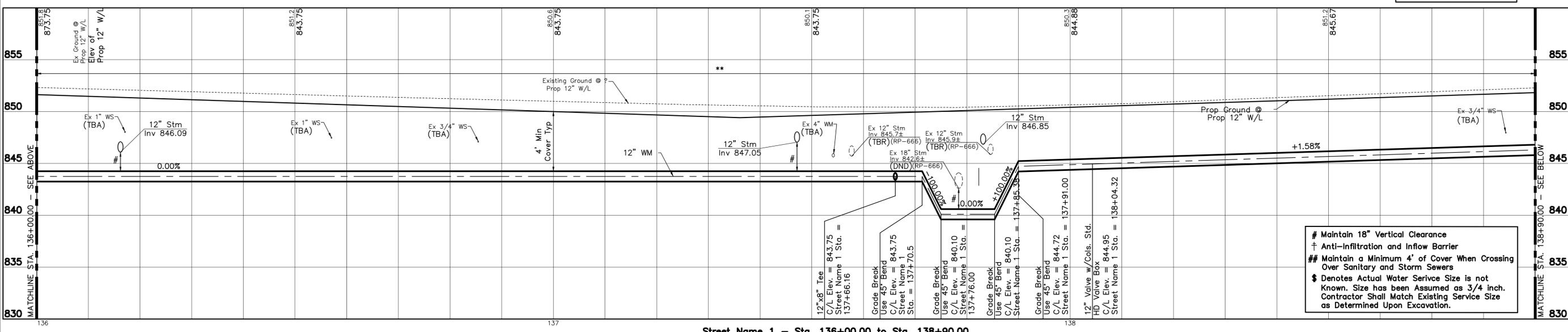




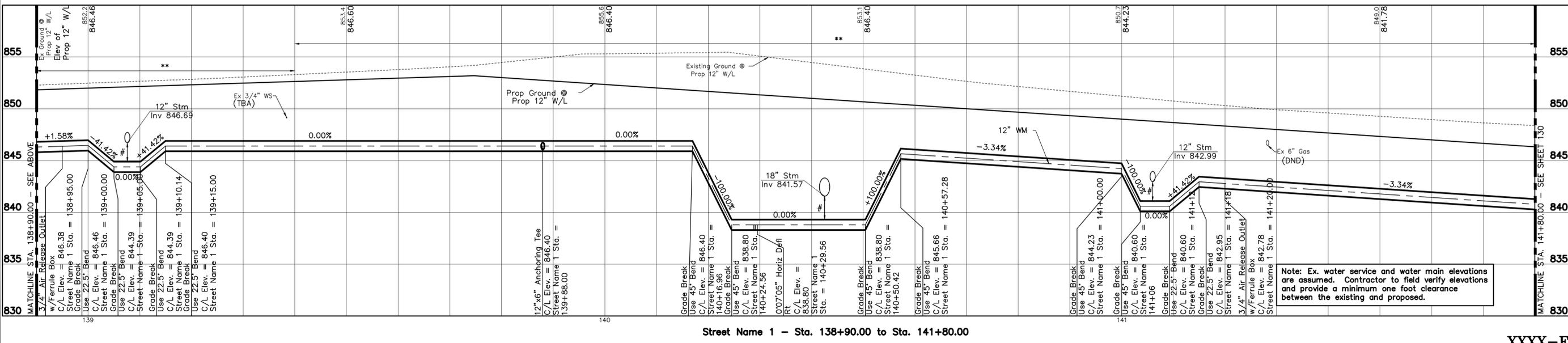
Backfill Shall Be Compacted To The Density Of The Adjacent Suitable Soil Unless Otherwise Noted.

- \* Compacted Backfill, Per 801.12
- \*\* Compacted Granular Backfill, Per 801.11
- \*\*\* Flowable Controlled Density Fill, Type III, Per 613.08, 5' min. each side of ex. util crossing.

NOTE TO CONSULTANTS:  
SCALE OF PROFILE SHOULD MATCH PLAN VIEW



- # Maintain 18" Vertical Clearance
- † Anti-Infiltration and Inflow Barrier
- ## Maintain a Minimum 4' of Cover When Crossing Over Sanitary and Storm Sewers
- ‡ Denotes Actual Water Service Size is not Known. Size has been Assumed as 3/4 inch. Contractor Shall Match Existing Service Size as Determined Upon Excavation.



Note: Ex. water service and water main elevations are assumed. Contractor to field verify elevations and provide a minimum one foot clearance between the existing and proposed.

HORIZ. SCALE: 1" = 10'

VERTICAL SCALE: 1" = 2.5'

CALCULATED

CHECKED

PROJECT NAME

WATER PROFILE - STREET NAME 1

- STA. 133+39.44 TO STA. 141+80.00

XXXX-E

STREET NAME 1					
See Sheet 48		AS-BUILT			
REF	ITEM	STATION	NORTHING	EASTING	ELEVATION
1	16"x12" Tapping Sleeve	133+39.09			
2	12" Water Main Valve	133+39.00			
3	12" 22.5' Bend (Horiz)	133+44.72			
4	3/4" WS (Short) (ADDRESS)	134+30.00	*	*	*
5	Grade Break Use Joint Defl (Vert)	134+70.00			
6	Grade Break Use Joint Defl (Vert)	135+00.00			
7	3/4" WS (Long) (ADDRESS)	135+23.00			
See Sheet 49					
STREET NAME 1					
2	3/4" WS (Short) (ADDRESS)	135+38.00			
3	3/4" WS (Long) (ADDRESS)	135+57.00			
4	12"x6" Anchor Tee	135+70.00			
5	6" Fire Hydrant Valve	135+70.00			
6	Fire Hydrant	135+75.60			
7	3/4" WS (Long) (ADDRESS)	135+95.00			
8	12" 22.5' Bend (Horiz)	135+99.14			
9	1" WS (Short) (ADDRESS)	136+20.00			
	3/4" WS (Long) (ADDRESS)	136+28.00			
10	1" WS (Short) (ADDRESS)	136+58.00			
11	3/4" WS (Long) (ADDRESS)	136+68.00			
12	3/4" WS (Short) (ADDRESS)	136+85.00			
See Sheet 50					
STREET NAME 1					
1	3/4" WS (Long) (ADDRESS)	137+34.00			
2	12"x8" Tee	137+66.16			
3	12" 45' Bend (Vert)	137+71.35			
4	12" 45' Bend (Vert)	137+75.00			
5	12" 45' Bend (Vert)	137+85.38			
6	12" 45' Bend (Vert)	137+90.00			
7	3/4" WS (Long) (ADDRESS)	137+99.00			
8	12" Water Main Valve w/ Cols. Std HD Valve Box	138+04.32			
9	3/4" WS (Long) (ADDRESS)	138+21.00			
10	3/4" WS (Short) (ADDRESS)	138+83.00			
11	3/4" ARO w/ Ferrule Box	138+95.00			
12	12" 22.5' Bend (Vert)	139+00.00			
13	12" 22.5' Bend (Vert)	139+05.00			
14	12" 22.5' Bend (Vert)	139+10.14			
15	12" 22.5' Bend (Vert)	139+15.00			
See Sheet 51					
STREET NAME 1					
1	3/4" WS (Short) (ADDRESS)	139+37.00			
2	12"x6" Anchor Tee	139+88.00			
3	6" Fire Hydrant Valve	139+88.00			
4	Fire Hydrant	139+93.00			
5	Horiz Bend Use Joint Defl	140+29.56			
6	12" 45' Bend (Vert)	140+50.42			
7	12" 45' Bend (Vert)	140+57.28			
8	12" 45' Bend (Vert)	141+00.00			
9	12" 45' Bend (Vert)	141+03.63			
10	12" 45' Bend (Vert)	141+09.32			
11	12" 45' Bend (Vert)	141+15.00			
12	3/4" ARO w/ Ferrule Box	141+20.00			
See Sheet 52					
STREET NAME 1					
1	12" 11.25' Bend (Vert)	142+12.27			
2	12"x8" Tee	142+17.55			
3	2" WS (Long) (ADDRESS)	142+21.00			
4	12" 11.25' Bend (vert)	142+46.46			
5	12" 45' Bend (Vert)	142+61.30			
6	12" 45' Bend (Vert)	142+65.00			
7	12" Water Main Valve w/ Cols. Std HD Valve Box	142+74.09			
See Sheet 55					
STREET NAME 1					
1	12" 22.5' Bend (Vert)	147+27.50			
2	12" 22.5' Bend (Vert)	147+32.67			
3	3/4" WS (Long) (ADDRESS)	147+73.00			
4	3/4" WS (Short) (ADDRESS)	147+76.00			
5	3/4" WS (Long) (ADDRESS)	147+87.00			
6	12" 22.5' Bend (Vert)	147+98.73			
7	12" 22.5' Bend (Vert)	148+02.50			
8	12" 22.5' Bend (Vert)	148+07.50			
9	12" 22.5' Bend (Vert)	148+12.50			

STREET NAME 2					
See Sheet 98		AS-BUILT			
REF	ITEM	STATION	NORTHING	EASTING	ELEVATION
1	3/4" WS (Short) (ADDRESS)	126+78.00			
2	12" 22.5' Bend (Vert)	126+78.32			
3	12" 22.5' Bend (Vert)	126+83.50			
4	12" 22.5' Bend (Vert)	126+88.50			
5	12" 22.5' Bend (Vert)	126+94.46			
6	3/4" WS (Short) (ADDRESS)	127+19.00			
See Sheet 56					
STREET NAME 2					
1	Grade Break Use Joint Defl (Vert)	128+21.01			
2	3/4" WS (Long) (ADDRESS)	128+62.00			
3	12" Water Main Valve w/ Cols. Std HD Valve Box	128+68.00			
4	12" 11.25' Bend (Vert)	128+73.00			
5	12" 11.25' Bend (Vert)	128+78.53			
6	12" 11.25' Bend (Vert)	128+89.52			
7	12" 11.25' Bend (Vert)	128+94.80			
8	12" 11.25' Bend (Horiz)	129+04.88			
9	8" Water Main Valve w/ Cols. Std HD Valve Box	129+30.77			
10	12" 22.5' Bend (Vert)	129+75.00			
11	3/4" WS (Long) (ADDRESS)	129+80.00			
12	12" 22.5' Bend (Vert)	129+82.48			
13	12" 22.5' Bend (Vert)	129+87.48			
14	12" 22.5' Bend (Vert)	129+95.00			
See Sheet 100					
STREET NAME 3					
1	3/4" WS (Short) (ADDRESS)	30+50.00			
2	2" WS (Long) (ADDRESS)	30+68.00			
3	8" Water Main Valve w/ Cols. Std HD Valve Box	30+90.00			
4	12" 45' Bend (Horiz)	31+00.00			
5	12" 45' Bend (Horiz)	31+13.18			
See Sheet 50					
STREET NAME 4					
1	8" Water Main Valve w/ Cols. Std HD Valve Box	0+23.50			
2	8" 45' Bend (Horiz)	0+35.90			
3	8"x6" Reducer	0+38.73			
4	6" 45' Bend (Horiz)	0+40.90			

Horizontal Reference Datum = NAD 83 (NSRS 2007) (Ohio South Zone)

**LEGEND**

ARO	Air Release Outlet
WS	Water Service
HD	Heavy Duty
Horiz	Horizontal
Vert	Vertical
Defl	Deflection

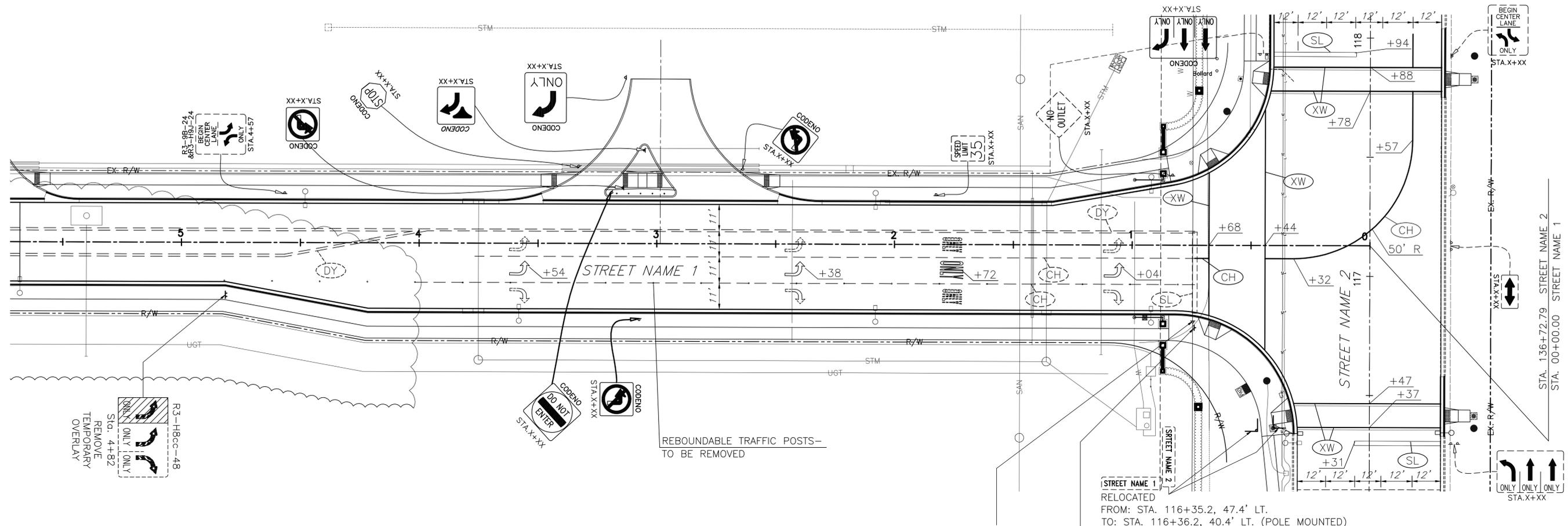
\* NOTE: PROVIDE COORDINATES AND ELEVATIONS OF WATER SERVICES AT THE CURB STOP.

CALCULATED  
ABC  
CHECKED  
ABC

WATERLINE  
SURVEY COORDINATE DATA

PROJECT NAME





EXISTING RPM'S HAVE BEEN INSTALLED WITH THIS PROPOSED LANE USE CONSIDERED. ALL EXISTING RPM'S SHALL REMAIN. SEE XXXX DR E

LEGEND

- (CH) PROPOSED PAVEMENT MARKINGS
- (DY) EXISTING PAVEMENT MARKINGS (TO REMAIN)
- [ ] PROPOSED SIGN
- [ ] EXISTING SIGN

LINE SPECIFICATIONS

WE	EDGE LINE, WHITE	SL	STOP LINE, 20" WHITE
YE	EDGE LINE, YELLOW	XW	CROSSWALK LINE, 10" WHITE
LL	LANE LINE, 5" YELLOW	WT	TRANSVERSE LINE, 20" WHITE
DY	CENTER LINE, 5" SOLID DOUBLE	YT	TRANSVERSE LINE, 20" YELLOW
		WCM	CURB MARKING, WHITE
CSD	CENTER LINE, 5" SOLID & DASHED	YCM	CURB MARKING, YELLOW
		WIM	ISLAND MARKING, WHITE
		YIM	ISLAND MARKING, YELLOW
CD	CENTER LINE, 5" DASHED SINGLE	WD	DOTTED LINE, 4" WHITE
CH	CHANNELIZING LINE, 10" WHITE	YD	DOTTED LINE, 4" YELLOW
		RM	REMOVAL OF PAVEMENT MARKINGS

REBOUNDABLE TRAFFIC POSTS—  
TO BE REMOVED

STREET NAME 1  
 RELOCATED  
 FROM: STA. 116+35.2, 47.4' LT.  
 TO: STA. 116+36.2, 40.4' LT. (POLE MOUNTED)

\*STOP SIGN SHALL REMAIN UNTIL NEW SIGNAL IS  
 IN OPERATION.

SUB-SUMMARY OF TRAFFIC CONTROL ITEMS

ITEM NUMBER	QUANTITY	UNIT	ITEM DESCRIPTION	REFERENCE SHEET
202	43	EA	RAISED PAVEMENT MARKER REMOVED	
621	52	EA	RPM	
630	112	LF	GROUND MOUNTED SUPPORT, NO 3 POST, AS PER PLAN	
630	32.5	SF	SIGN, FLAT SHEET, TYPE G, AS PER PLAN	5
630	5	EA	REMOVAL OF GROUND MOUNTED SUPPORT AND DISPOSAL	
630	3	EA	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	
644	164	LF	CENTER LINE, 5", SOLID DOUBLE	
644	868	LF	CHANNELIZING LINE	
644	64	LF	STOP LINE	
644	380	LF	CROSSWALK LINE	
644	11	EA	LANE ARROW	
644	4	EA	WORD ON PAVEMENT	
644	133	LF	DOTTED LINE, 4"	
644	1171	LF	REMOVAL OF PAVEMENT MARKINGS	
644	3	EA	REMOVAL OF PAVEMENT MARKINGS	



PAVEMENT MARKING AND SIGNING

PROJECT NAME



Street A at Street C	Street A at Street B	ITEM NO.	ESTIMATED QUANTITY	UNIT	DESCRIPTION *
					<b>TRAFFIC SIGNAL</b>
223	20	625	243	LF	Conduit, Concrete Encased, 2", 725.051
133	159	625	292	LF	Conduit, Concrete Encased, 3", 725.051
248	419	625	667	LF	Conduit, 2", 725.051
230	290	625	520	LF	Trench, 30" Deep
134	74	625	208	LF	Trench, 36" Deep
2	1	625	3	Each	Pull Box, 725.08, 27"
2		625	2	Each	Pull Box, 725.08, 32"
	3	625	3	Each	Pull Box, 725.06, 13"x24"
10	11	625	21	Each	Ground Rod
341	273	625	614	LF	No. 4 AWG, 600 Volt Distribution Cable, As Per Plan
3		625	3	Each	Bracket Arm, 25'
1		625	1	Each	Bracket Arm, 30'
1	1	630	2	Lump	Signing, Misc.: Traffic Signal Signs
4	4	630	8	Each	Sign Support Assembly, Pole Mounted, As Per Plan
	1	632	1	Each	Conduit Riser, 2" Diameter, 725.05, SCH 80
6	6	632	12	Each	Vehicular Signal Head, (LED), 3-Section, 12" Lens, 1-Way
2	4	632	6	Each	Vehicular Signal Head, (LED), 5-Section, 12" Lens, 1-Way
8	8	632	16	Each	Pedestrian Signal Head, (LED), (Countdown)
4	4	632	8	Each	Pedestrian Pushbutton
8	10	632	18	Each	Covering Of Vehicular Signal Head
8	8	632	16	Each	Covering Of Pedestrian Signal Head
4	4	632	8	Each	Covering Of Pedestrian Pushbutton
4		632	4	Each	Signal Support Foundation
4	6	632	10	Each	Pedestal Foundation
1		632	1	Each	Signalization Misc.: Sleeve For Anchor Base Foundation
	1	632	1	Each	Pedestal Support, 5', Transformer Base
4	5	632	9	Each	Pedestal Support, 10.7', Transformer Base
	1	632	1	Each	Pedestrian Pedestal, Relocated
4		632	4	Each	Combination Signal Support, Type 4120, Design 4
	3	632	3	Each	Strain Pole, Type 4170, Design 8
	3	632	3	Each	Strain Pole Foundation
1	1	632	2	Each	Removal Of Traffic Signal Installation, As Per Plan
1268	948	632	2216	LF	Signal Cable, 7-Conductor, No. 14, Awg
207	804	632	1011	LF	Signal Cable, 9-Conductor, No. 14, Awg
	310	632	310	LF	Messenger Wire, 7 Strand, 3/8" Diameter with Aecessories
537	2982	632	3519	LF	Loop Detector Lead-In Cable
	5	632	5	Each	Detector Loop
34	68	632	102	LF	Power Cable, 2-Conductor, No. 6 AWG
	123	632	123	LF	Service Cable, 2-Conductor, No. 6 AWG
1		632	1	Each	Signalization, Misc.: Video Detection System
1	1	633	2	Each	Cabinet Foundation
1	1	633	2	Each	Controller Unit With Cabinet 8 PH, P44, Base Mounted
	1	633	1	Each	Controller Work Pad

\* - ITEM DESCRIPTIONS ARE SHOWN FOR EXAMPLE PURPOSES ONLY.  
 ACTUAL ITEM DESCRIPTIONS USED WILL VARY BY PROJECT

CALCULATED XXX CHECKED XXX	None
TRAFFIC SIGNAL INSTALLATION GENERAL SUMMARY	
PROJECT NAME	





**FIELD WIRING HOOK-UP CHART**

SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
1 (NBLT)	R	06 R	Y
	Y	06 Y	
	G	06 G	
	W	01 W	
2 (NB)	R	06 R	Y
	Y	06 Y	
3 (EBLT)	R	03 R	R
	Y	03 Y	
4 (EBLT)	R	03 R	R
	Y	03 Y	
5 (EB)	R	08 R	R
	Y	08 Y	
6 (EBRT)	R	08 R	R
	Y	08 Y	
	G	08 G	
	W	01 W	
7 (SBLT)	R	02 R	Y
	Y	02 Y	
	G	02 G	
	W	05 W	
8 (SB)	R	02 R	Y
	Y	02 Y	
9 (WBLT)	R	04 R	R
	Y	04 Y	
	G	04 G	
	W	07 W	
10 (WB)	R	04 R	R
	Y	04 Y	
N	WALK	G 04-W	OFF
	DON'T WALK	R 04-DW	
S	WALK	G 08-W	OFF
	DON'T WALK	R 08-DW	
E	WALK	G 06-W	OFF
	DON'T WALK	R 06-DW	
W	WALK	G 02-W	OFF
	DON'T WALK	R 02-DW	

**TIMING CHART**

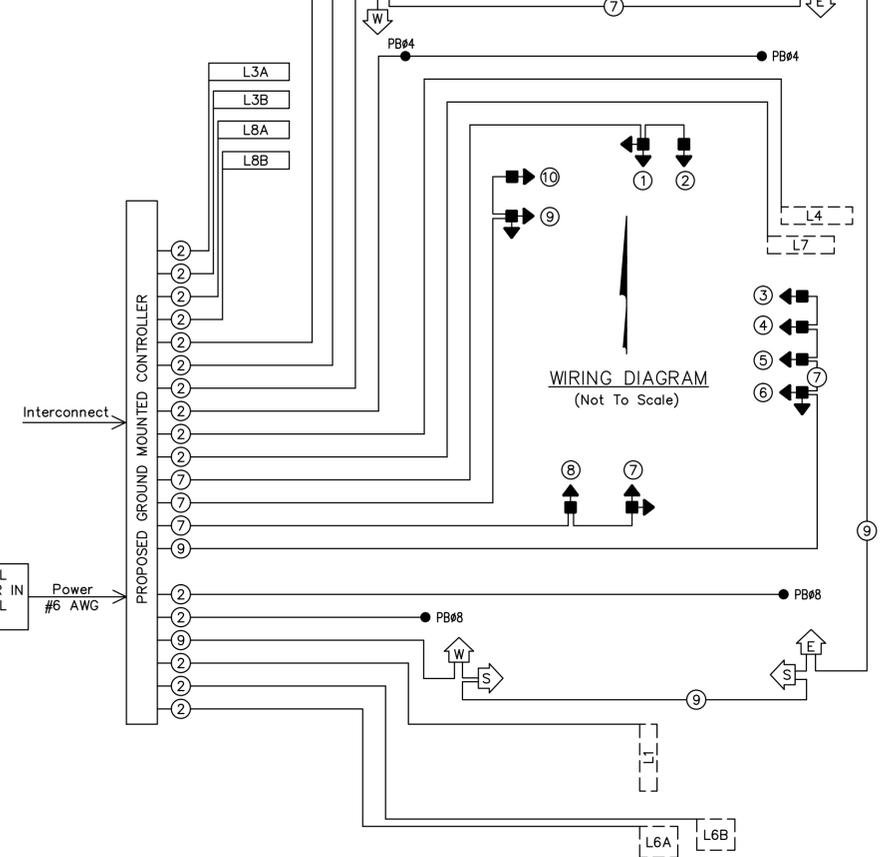
PHASE	01	02	03	04	05	06	07	08
MOVEMENT	NBLT	SB	EBLT	WB	SBLT	NB	WBLT	EB
MIN INITIAL	8	23	8	10	8	23	8	10
WALK	0	7	0	7	0	7	0	7
PED CLR	0	17	0	22	0	17	0	22
PASS / EXT	3.7	2.5	3.7	3.7	3.7	2.5	3.7	3.7
YELLOW	3.0	3.9	3.0	3.6	3.0	3.9	3.0	3.6
RED CLR	3.7	1.8	4.2	2.4	3.3	1.8	3.5	2.4
MAX GRN 1	30	50	25	50	30	50	25	50
MAX GRN 2	30	50	25	50	30	50	25	50
PED RECALL	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
VEH RECALL	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
MEMORY	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF

**DETECTOR ASSIGNMENTS**

DET (#)	DETECTOR ASSIGNMENT		PHASE	LOOP SIZE (W x L)	LOOP DELAY DATA		DET UNIT RACK & CABLE LABEL
	UNIT (#)	CHANNEL (#)			DELAY IN SECONDS	INHIBIT DELAY DURING GRN	
L6A	1	1	06	Existing	-	-	NB (L)
L6B	1	2	06	Existing	-	-	NB (R)
L1	2	1	01	Existing	3	01	NBLT
L5	2	2	05	6'x25'	3	05	SBLT
L2A	3	1	02	Existing	-	-	SB (L)
L2B	3	2	02	Existing	-	-	SB (R)
L3A	4	1	03	5'x33'	3	03	EBLT (L)
L3B	4	2	03	5'x32'	-	03	EBLT (R)
L8A	5	1	08	5.5'x31'	-	08	EB
L8B	5	2	08	5'x30'	12	08	EBRT
L4	6	1	04	Existing	-	04	WB
L7	6	2	07	Existing	3	07	WBLT

**WIRING DIAGRAM LEGEND**

- L-X Detector Loop
- Proposed Vehicular Signal Head
- Proposed Pedestrian Signal Head
- PB Pedestrian Pushbutton



ITEM 632 REMOVAL OF TRAFFIC EXISTING SIGNAL INSTALLATION, AS PER PLAN

QUANTITY	REMOVED ITEM DESCRIPTION	DELIVERED TO 1820 E 17th AV	DISPOSED OF BY PROJECT
2	TRAFFIC PULL BOX	X	
4	PEDESTRIAN PUSHBUTTON	X	
1	SIGNAL WIRES (LUMP SUM)		X
4	FOUNDATIONS		X
1	SIGNAL CONDUIT (LUMP SUM)		X
1	CONTROLLER	X	
1	SPAN WIRE (LUMP SUM)		X
8	PEDESTRIAN SIGNAL HEAD	X	
8	SIGNAL HEADS	X	
1	POWER SERVICE		X
3	SIGNAL POLES	X	
1	PEDESTAL	X	

**NOTES:**

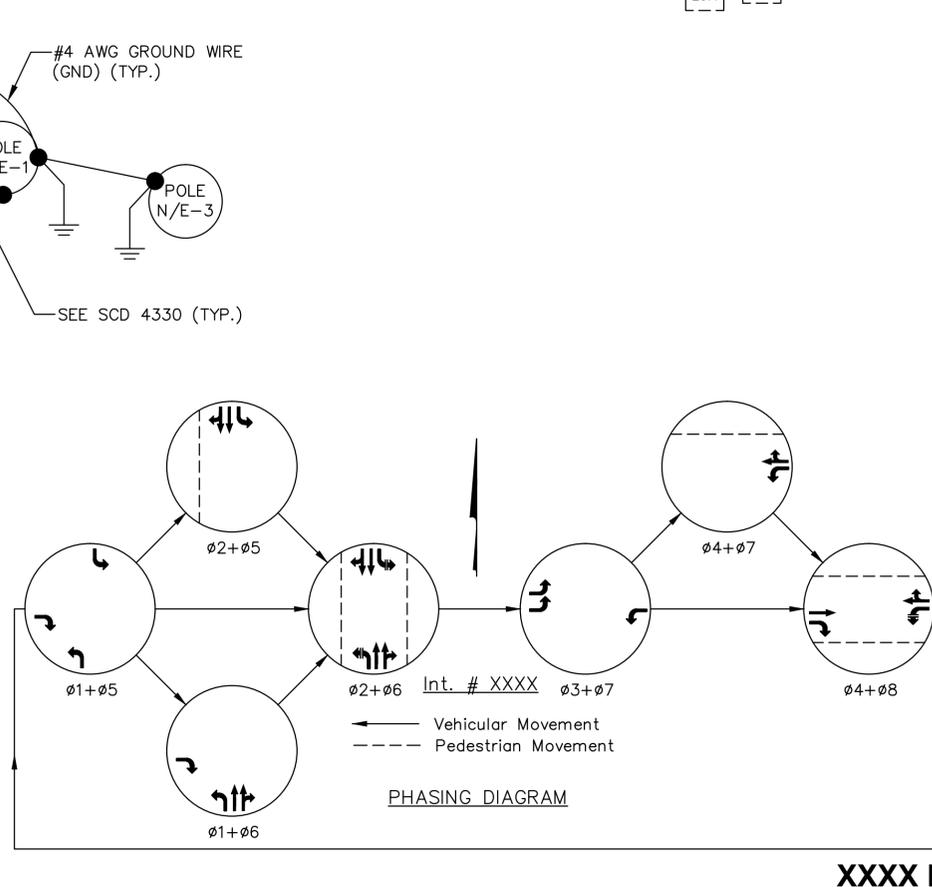
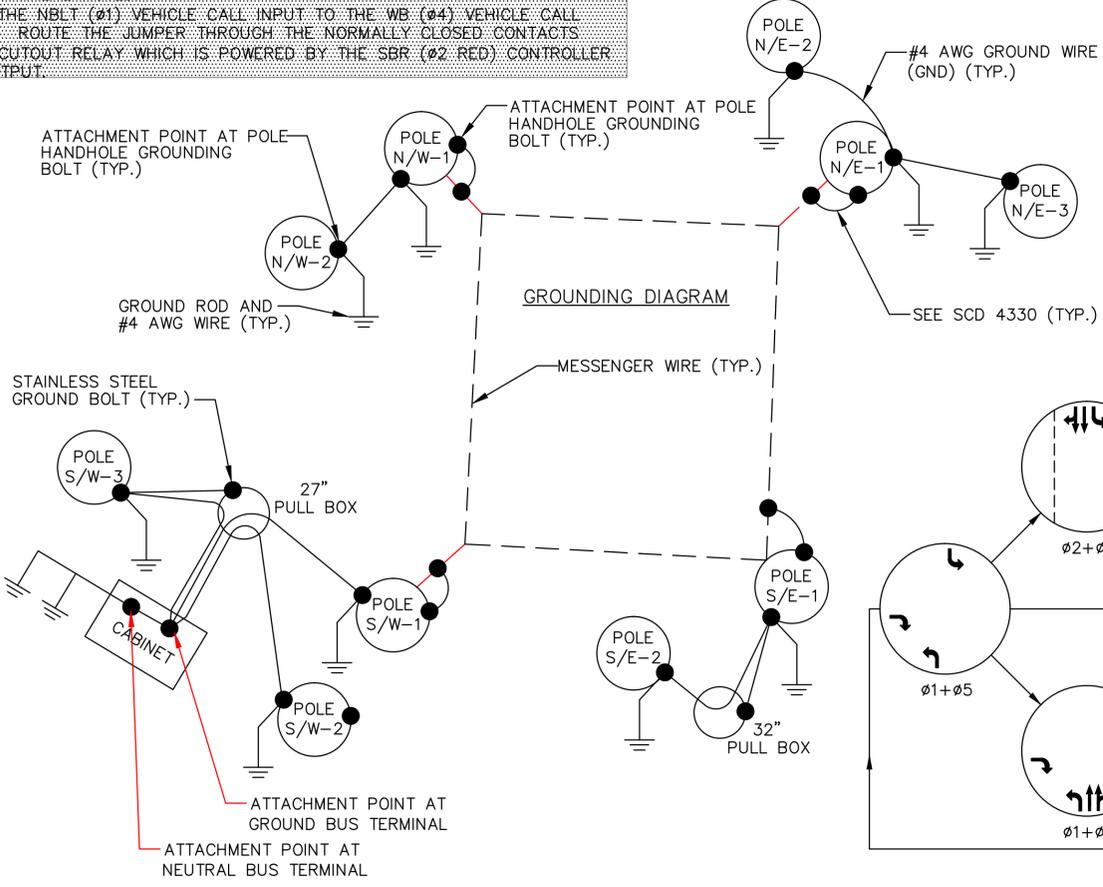
- SET CONFLICT MONITOR FOR 10 SEC FLASH.
- LOOP DETECTOR LEAD-IN CABLE SHALL BE USED FOR THE PEDESTRIAN PUSHBUTTONS. GROUND THE SHIELD ONLY AT THE CABINET. SET ALL PRESENCE LOOP CHANNELS TO COUNT MODE.
- SET ALL 6'x6' LOOP CHANNELS TO PULSE MODE.
- ALL LOOP SPADE TERMINALS SHALL HAVE THE LOOP HOMERUN WIRE SOLDERED TO THE SPADE TERMINAL. THE LOOP HOMERUN WIRES SHALL BE TWISTED TOGETHER AS CLOSE TO THE SPADE TERMINAL SCREWS AS POSSIBLE. THE GROUNDING POINT SHALL BE THE CLOSEST BACK PANEL WIRE.
- HARD WIRE DETECTOR GROUND.
  - INSTALL A #1 'OMIT' THROUGH THE THRC.
  - INSTALL A #1 'OMIT' INP THROUGH THE THRC.
  - USE DIODES.
  - INSTALL DIGI #7 AND #8.
- INITIALIZE IN.
  - ENABLE DUAL ENTRY. ACTIVATE 04 & 08.
  - ENABLE SIMULTANEOUS GAP OUT. ACTIVATE 02, 04, 06 & 08.
- INTERCONNECT FEEDER CABLE SHALL BE CONTINUOUSLY RUN BETWEEN THE CONTROLLER CABINET AND THE COAX DEVICE. NO SPLICES ARE PERMITTED EXCEPT WHERE NOTED.
- JUMPER THE NBLT (01) VEHICLE CALL INPUT TO THE WB (04) VEHICLE CALL INPUT. ROUTE THE JUMPER THROUGH THE NORMALLY CLOSED CONTACTS OF A CUTOUT RELAY WHICH IS POWERED BY THE SBR (02 RED) CONTROLLER DC OUTPUT.

PLAN SHEET NOTES ARE ISSUED BY THE CITY OF COLUMBUS. ONLY USE NOTES APPLICABLE TO THE PROJECT.

**INTERSECTION LAYOUT NOTES:**

- The Contractor shall ensure that all sidewalks/pathways meet ADA guidelines per City specifications.
- Power service and interconnect cable shall be continuous with no splices except as noted.
- For signing and pavement markings, see sheet(s) XX-XX.
- Center all loops in the center of their lane unless specified otherwise. Install loops after the asphalt surface course is laid.
- The top of the pole base foundation shall be edged using a 1/2" sidewalk edger instead of being chamfered.
- The Transportation Division Personnel shall approve bolt alignment, pole foundation location and elevation prior to the Contractor installing the foundation.
- Tagging of cable in the certain cable as directed.
- The pedestrian signal head (ramp) that is opposite a it.
- Do not encase the groud foundation. Full access of concrete, if visible, wi shall be flush with the top of the sidewalk.
- The Contractor shall not underground conduit and prior to the placement o
- The Contractor shall pro the designated power soi shall not be bundled with
- See interconnect schema
- For continuation of conduit, see sheet(s) XX.
- Use a separate conduit for each grouping of cables unless otherwise indicated: one conduit for 120VAC signal cable (5C, 7C, 9C); one conduit for power; one conduit for 2 conductor cable (loop & pushbutton); and one conduit for interconnect cable (twisted pair, fiber optics or coax). Any other low voltage cable not specified above can be placed in the 2 conductor cable conduit. Power cable must be in its own conduit.
- Unless otherwise specified the following shall apply. A preformed PVC conduit elbow shall be used to change the PVC conduit direction beyond what its natural bending flex would yield. Rigid metal conduit can be bent to form an elbow or any other bending angle required only if a proper conduit bending machine is used. The elbow radius for any non-interconnect conduit shall be 24" or larger when used in a horizontal or vertical manner. Any type of elbow used for interconnect conduit shall have a radius of 36" or larger when used in a horizontal direction or in a vertical direction when the trench is 36" or deeper. If the trench is less than 36" then the vertical elbow radius shall be 24".
- All clamps and banding material shall be painted to match the signal supports.

PLAN SHEET NOTES ARE ISSUED BY THE CITY OF COLUMBUS. ONLY USE NOTES APPLICABLE TO THE PROJECT.



None

SCALE  
CALCULATED XXX  
CHECKED XXX

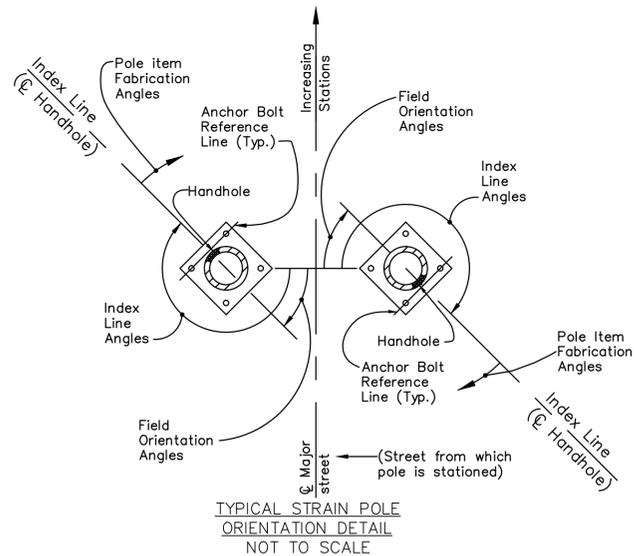
TRAFFIC SIGNAL DETAILS  
STREET A AT STREET B

PROJECT NAME

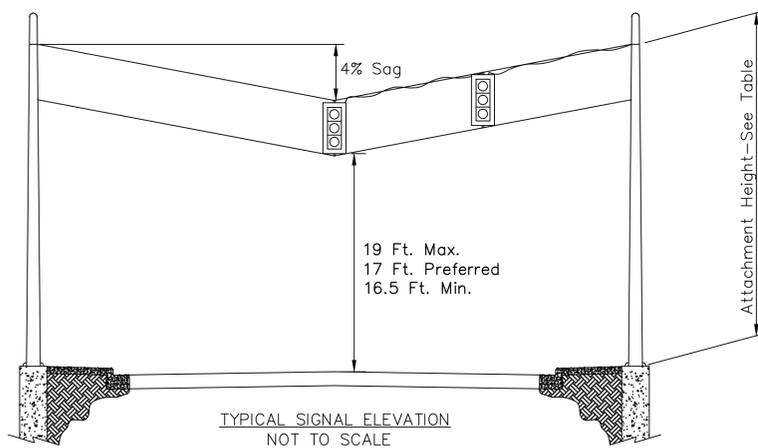
XXX  
XXX

XXXX E

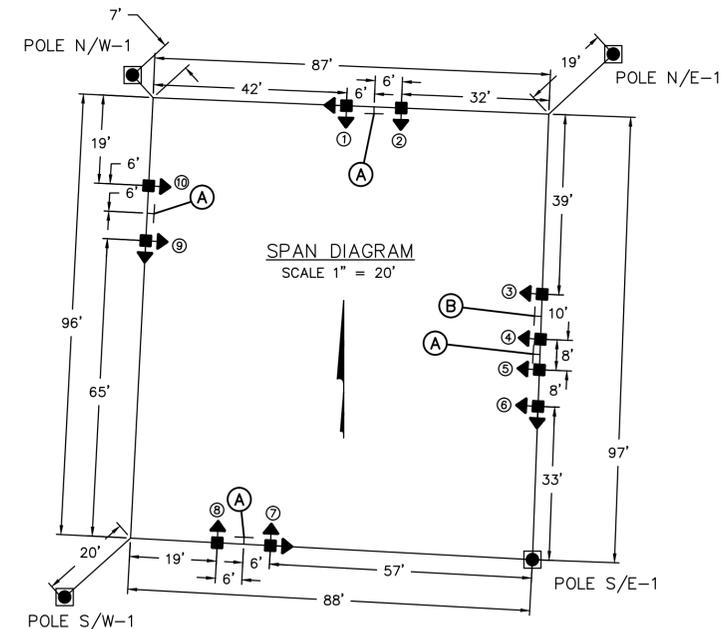
INTERSECTION	SHEET NO.	POLE SIZES & SPAN ATTACHMENT HEIGHT					POLE FABRICATION DATA CLOCKWISE FROM HANDHOLE AT 0 DEGREES						FIELD ORIENTATION			
		POLE DESIGNATION	POLE COLOR	POLE DESIGN NO.	POLE HT. (FT.)	ATTACHMENT HT. (FT.) SPAN @ HT. (FT.)	ANCHOR BOLT REF. LINE	2" BHC ANGLE-HT. DEG.-FT.	3" BHC ANGLE-HT. DEG.-FT.	PED. SIGNALS	PED. PUSH BUTTON	STREET NAME SIGN	INDEX LINE ANGLE (HANDHOLE)	ANCHOR BOLT REF. LINE	CAPPED FOUNDATION CONDUIT ELL 2" DIA.	FOUNDATION ELEVATION
		S/W-1	Dark Bronze	8	32'	28.5'	90°	-	29' - 180°	-	-	-	225°	135°	225'	726.09
		S/W-2	Dark Bronze	PEDESTAL	10.7'	-	90°	-	-	203°	180°	-	148°	58°	-	726.09
		S/W-3	Dark Bronze	PEDESTAL	10.7'	-	90°	-	-	262°	-	-	198°	108°	-	725.95
STREET A AT STREET B	XXX	N/W-2	Dark Bronze	PEDESTAL	10.7'	-	90°	-	-	99°	-	-	171°	81°	-	726.16
		N/W-1	Dark Bronze	8	30'	27'	90°	28' - 180°	-	223°	251°	135°/225°	134°	44°	134'	725.45
		N/E-2	Dark Bronze	PEDESTAL	10.7'	-	90°	-	-	105°	90°	-	242°	152°	-	728.11
		N/E-1	Dark Bronze	8	32'	28.5'	90°	29' - 180°	-	-	-	-	224°	134°	134'	729.12
		N/E-3	Dark Bronze	PEDESTAL	10.7'	-	90°	-	-	240°	-	-	217°	127°	-	728.66
		S/E-1	Dark Bronze	EXISTING	EX.	26'	EX.	EX.	-	130°/226°	-	135°/225°	135°	EX.	-	728.99
		S/E-2	Dark Bronze	PEDESTAL	5'	-	90°	-	-	-	180°	-	203°	113°	-	727.53



NOTES:  
All angles measured clockwise.  
Index line goes through the center of the handhole.



NOTES:  
1. The lowest signal head height in each direction shall be set at 16.5 feet minimum (17' preferred). Adjust the span accordingly.



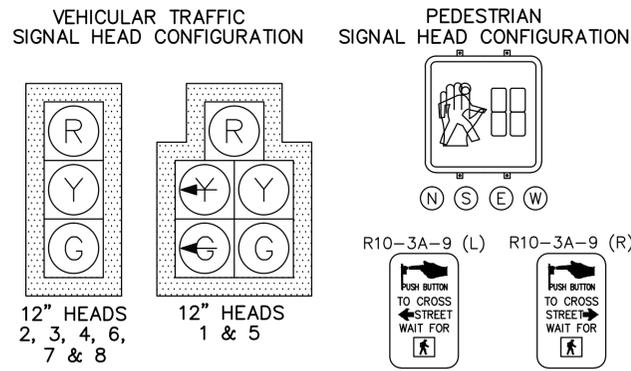
NOTES:  
1. The lowest signal head height in each direction shall be set at 16.5 feet (17' Preferred). Adjust the span accordingly.  
2. The dimensions shown on the span diagram are estimates. Final head positions shall be on the lane line, channel line or on the lane centerline. The distance between the heads are as indicated.

CALCULATED SCALE  
XXX  
CHECKED  
XXX

POLE FABRICATION AND ORIENTATION  
DETAILS

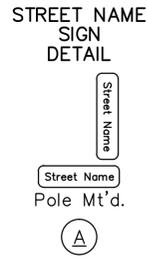
PROJECT NAME

XX  
XX



- NOTES:
- The Contractor shall ensure that all sidewalks/pathways meet ADA guidelines per City specifications.
  - Power, service and interconnect cable shall be continuous with no splices except as noted.
  - For signing and pavement markings, see sheet(s) XX & XX.
  - The top of the pole base foundation shall be edged using a 1/2" sidewalk edger instead of being chamfered.
  - The Transportation Division Personnel shall approve bolt alignment, pole foundation location and elevation prior to the Contractor installing the foundation.
  - Tagging of cable in the pullbox next to the control cabinet is not required except for tagging of certain cable as directed by the Project Engineer or as per plan.
  - The pedestrian signal head shall be aimed at the centerline of the crosswalk area (not the curb ramp) that is opposite of the pedestrian signal head. The pedestrian signal heads shall also have a slight downward angle to it.
  - Do not encase the ground rod, the grounding wire or the EMT conduit in concrete outside of their foundation. Full access to these items must be maintained at all times. Permanently mark the top of foundation concrete, if visible, with a marker or symbol so the rod location can be known by others.
  - Any signal support base foundation within or adjacent to a sidewalk area shall be flush with the top of the sidewalk.
  - The Contractor shall not install pole foundations until the pole location area is at finished grade.
  - Underground sidewalk placement course. The Contractor shall be responsible for the placement of the sidewalk.
  - The Contractor shall be responsible for the placement of the sidewalk.
  - See interconnect schematic sheet(s) XXX for interconnect items.
  - For continuation of conduit, see sheet(s) XXX and XXX.
  - The control cabinet door shall be located on the south side of the cabinet.
  - The top surface of a cabinet foundation located in sidewalk areas shall be 4" above the surrounding walk. Expansion material shall be used between all foundations and adjacent sidewalk.
  - Use a separate conduit for each grouping of cables unless otherwise indicated: one conduit for 120VAC signal cable (5C, 7C, 9C, GND); one conduit for power; one conduit for 2 conductor cable (loop & pushbutton); and one conduit for interconnect cable (twisted pair, fiber optics or coax). Any other low voltage cable not specified above can be placed in the 2 conductor cable conduit. Power cable must be in its own conduit.
  - Unless otherwise specified the following shall apply. A preformed PVC conduit elbow shall be used to change the PVC conduit direction beyond what its natural bending flex would yield. Rigid metal conduit can be bent to form an elbow or any other bending angle required only if a proper conduit bending machine is used. The elbow radius for any non-interconnect conduit shall be 24" or larger when used in a horizontal or vertical manner. Any type of elbow used for interconnect conduit shall have a radius of 36" or larger when used in a horizontal direction or in a vertical direction when the trench is 36" or deeper. If the trench is less than 36" then the vertical elbow radius shall be 24".
  - All clamps and banding material shall be painted to match the signal supports.

PLAN SHEET NOTES ARE ISSUED BY THE CITY OF COLUMBUS. ONLY USE NOTES APPLICABLE TO THE PROJECT.



**POLE N/W-2** PEDESTRIAN PEDESTAL, 10.7' W/(1)-PEDESTRIAN SIGNAL HEAD STA. 105+33.1, 45.4' LT.  
 (1)-2" CONDUIT W/(2)-7/C & (1)-GND IN TRENCH = 13'  
 PULL BOX, 27" STA. 105+30.0, 32.5' LT.  
 (1)-2" CONDUIT W/(1)-2/C & (1)-VIDEO (1)-2" CONDUIT W/(2)-7/C, & (3)-GND IN TRENCH = 20'  
 MAJOR STREET @ STA. 105+59.36 = MINOR STREET @ STA. 37+56.65 CITY OF COLUMBUS INT. NO. = XXXX

**POLE N/W-1** COMBINATION SIGNAL SUPPORT W/(1)-PEDESTRIAN PUSHBUTTON W/(1)-PEDESTRIAN SIGNAL HEAD W/(1)-25' BRACKET ARM W/(1)-VIDEO DETECTION CAMERA STA. 105+11.3, 27.9' LT.

**POLE S/W-2** PEDESTRIAN PEDESTAL, 10.7' W/(1)-PEDESTRIAN SIGNAL HEAD W/(1)-PEDESTRIAN PUSHBUTTON STA. 105+12.7, 27.2' RT.  
 (1)-2" CONDUIT W/(1)-2/C (1)-2" CONDUIT W/(1)-7/C, & (3)-GND IN TRENCH = 14'  
 PULL BOX, 32" STA. 105+22.5, 35.9' RT.

**POLE S/W-1** COMBINATION SIGNAL SUPPORT W/(1)-PEDESTRIAN SIGNAL HEAD W/(1)-25' BRACKET ARM W/(1)-VIDEO DETECTION CAMERA STA. 105+30.1, 48.6' RT.  
 (1)-2" CONDUIT W/(2)-7/C, & (1)-GND (1)-2" CONDUIT W/(1)-2/C & (1)-VIDEO (1)-1.5" CONDUIT W/TRACING WIRE (4)-3" CONDUITS (SEE INTERCONNECT PLAN) ENCASED IN TRENCH = 68'

FOR CLARITY, VIDEO DETECTION BRACKET ARMS AND CAMERAS HAVE NOT BEEN SHOWN. SEE VIDEO DETECTION DETAIL.

(1)-2" CONDUIT W/(1)-2/C & (1)-VIDEO (1)-2" CONDUIT W/(2)-7/C & (1)-GND ENCASED IN TRENCH = 60'

**POLE N/E-2** PEDESTRIAN PEDESTAL, 10.7' W/(1)-PEDESTRIAN SIGNAL HEAD STA. 105+85.8, 44.9' LT.  
 (1)-2" CONDUIT W/(2)-7/C & (2)-GND (1)-2" CONDUIT - EMPTY IN TRENCH = 12'  
 PULL BOX, 27" STA. 105+90.2, 32.9' LT.

(1)-2" CONDUIT W/(2)-2/C & (2)-VIDEO (1)-2" CONDUIT W/(1)-9/C, (2)-7/C & (1)-GND ENCASED IN TRENCH = 67'

(1)-2" CONDUIT W/(1)-2/C & (1)-VIDEO (1)-2" CONDUIT W/(1)-9/C, (2)-7/C, & (3)-GND IN TRENCH = 20'

**POLE N/E-1** COMBINATION SIGNAL SUPPORT W/(1)-PEDESTRIAN PUSHBUTTON W/(1)-PEDESTRIAN SIGNAL HEAD W/(1)-30' BRACKET ARM W/(1)-VIDEO DETECTION CAMERA STA. 106+06.9, 24.9' LT.

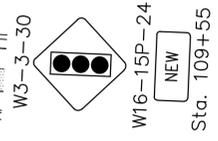
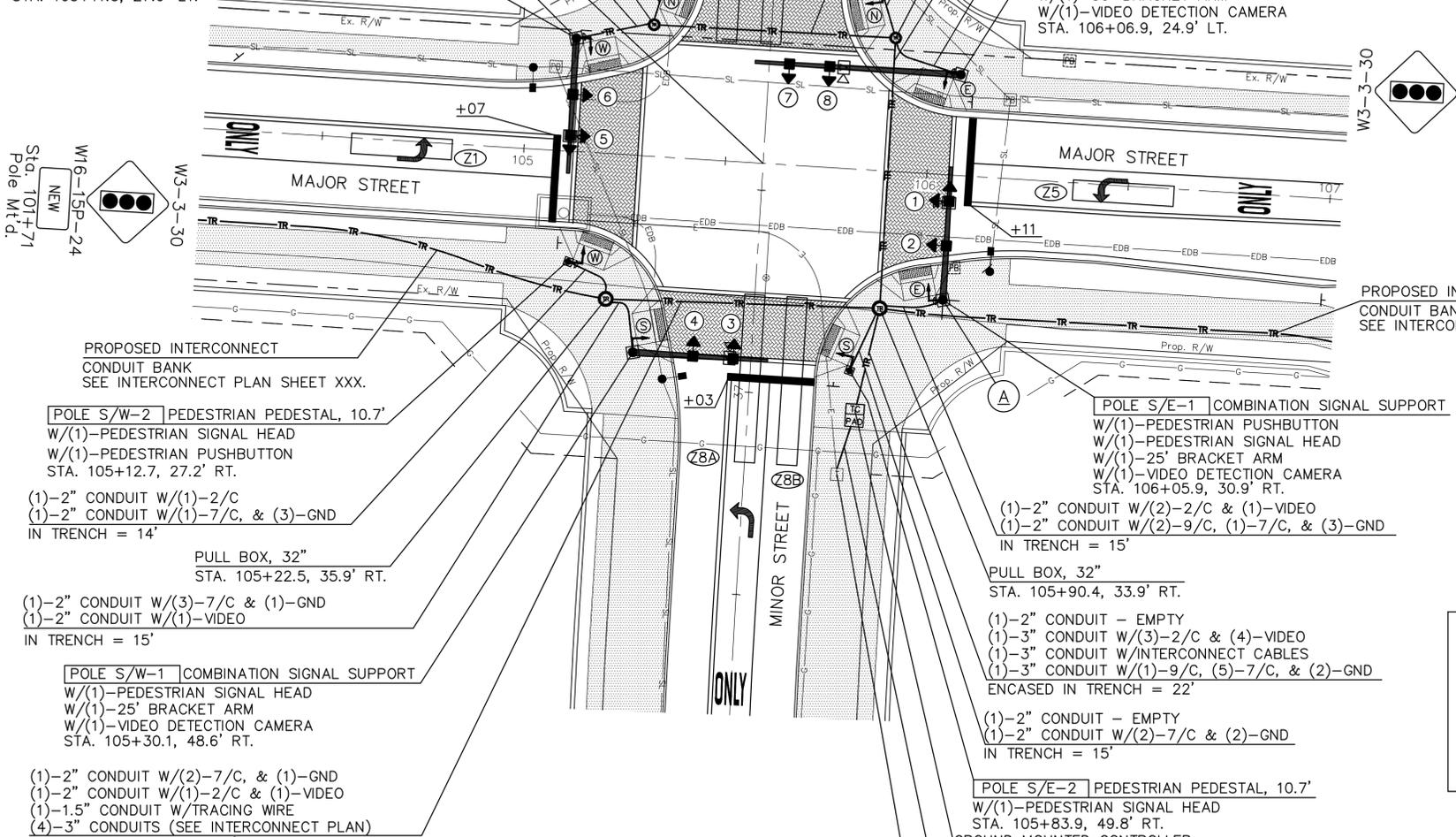
**POLE S/E-1** COMBINATION SIGNAL SUPPORT W/(1)-PEDESTRIAN PUSHBUTTON W/(1)-PEDESTRIAN SIGNAL HEAD W/(1)-25' BRACKET ARM W/(1)-VIDEO DETECTION CAMERA STA. 106+05.9, 30.9' RT.  
 (1)-2" CONDUIT W/(2)-2/C & (1)-VIDEO (1)-2" CONDUIT W/(2)-9/C, (1)-7/C, & (3)-GND IN TRENCH = 15'  
 PULL BOX, 32" STA. 105+90.4, 33.9' RT.

(1)-2" CONDUIT - EMPTY (1)-3" CONDUIT W/(3)-2/C & (4)-VIDEO (1)-3" CONDUIT W/INTERCONNECT CABLES (1)-3" CONDUIT W/(1)-9/C, (5)-7/C, & (2)-GND ENCASED IN TRENCH = 22'

(1)-2" CONDUIT - EMPTY (1)-2" CONDUIT W/(2)-7/C & (2)-GND IN TRENCH = 15'

**POLE S/E-2** PEDESTRIAN PEDESTAL, 10.7' W/(1)-PEDESTRIAN SIGNAL HEAD STA. 105+83.9, 49.8' RT.  
 (1)-2" CONDUIT W/(1)-POWER ENCASED IN TRENCH = 14'

EX. POWER COMPANY PAD MOUNTED TRANSFORMER (PROP. POWER SOURCE)



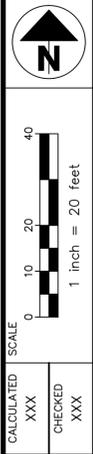
PROPOSED INTERCONNECT CONDUIT BANK SEE INTERCONNECT PLAN SHEET XXX.

SEE CITY OF COLUMBUS, TRAFFIC SIGNAL DESIGN MANUAL, SECTION 2.1 FOR A COMPLETE TRAFFIC SIGNAL PLAN LEGEND.

**LEGEND**

SIGNAL HEADS:	PROP. VEHICULAR	EX. VEHICULAR
SIGNAL POLES:	PROP. PEDESTRIAN	EX. PEDESTRIAN
	PROP. ANCHOR/STRAIN POLE	EX. ANCHOR/STRAIN POLE
	EX. EMBEDDED POLE	EX. WOOD POLE
	PROP. PEDESTAL	EX. PEDESTAL
	EX. MASTARM	
	PROP. MASTARM	
CONTROLLERS & CABINETS:	EX. CABINET W/PAD	PROP. CABINET W/PAD
	EX. CABINET (NO PAD)	PROP. CABINET (NO PAD)
PULL BOXES:	EX. PULL BOX	PROP. PULL BOX
DETECTION:	FLOW MONITOR	MICROWAVE
	VIDEO CAMERA	VIDEO ZONE
	LOOP DETECTOR	
MISCELLANEOUS:	REDLIGHT CAMERA	REDLIGHT FLASH

MAST ARM EXAMPLE



TRAFFIC SIGNAL INSTALLATION PLAN  
STREET A AT STREET C

PROJECT NAME

XXXX E

FIELD WIRING HOOK-UP CHART

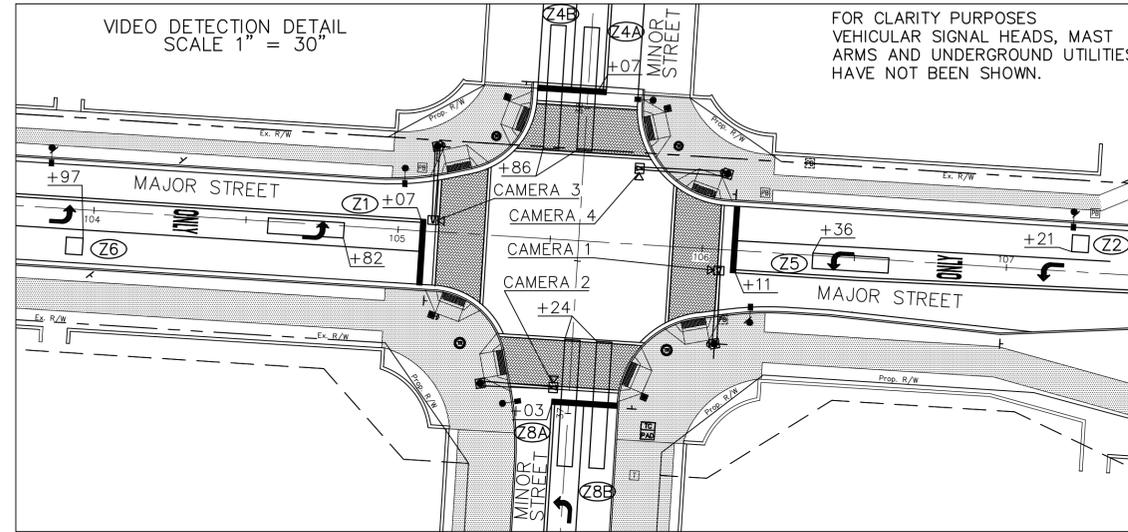
SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
1 (EBLT)	R	ø6 R	Y
	Y	ø6 Y	
	G	ø6 G	
	←	ø1 Y	
2 (EB)	R	ø6 R	Y
	Y	ø6 Y	
	G	ø6 G	
3 & 4 (SB)	R	ø4 R	R
	Y	ø4 Y	
	G	ø4 G	
5 (WBLT)	R	ø2 R	Y
	Y	ø2 Y	
	G	ø2 G	
	←	ø5 Y	
6 (WB)	R	ø2 R	Y
	Y	ø2 Y	
	G	ø2 G	
7 & 8 (NB)	R	ø8 R	R
	Y	ø8 Y	
	G	ø8 G	
N	WALK	G ø2-W	OFF
	DON'T WALK	R ø2-DW	
S	WALK	G ø6-W	OFF
	DON'T WALK	R ø6-DW	
E	WALK	G ø8-W	OFF
	DON'T WALK	R ø8-DW	
W	WALK	G ø4-W	OFF
	DON'T WALK	R ø4-DW	

TIMING CHART

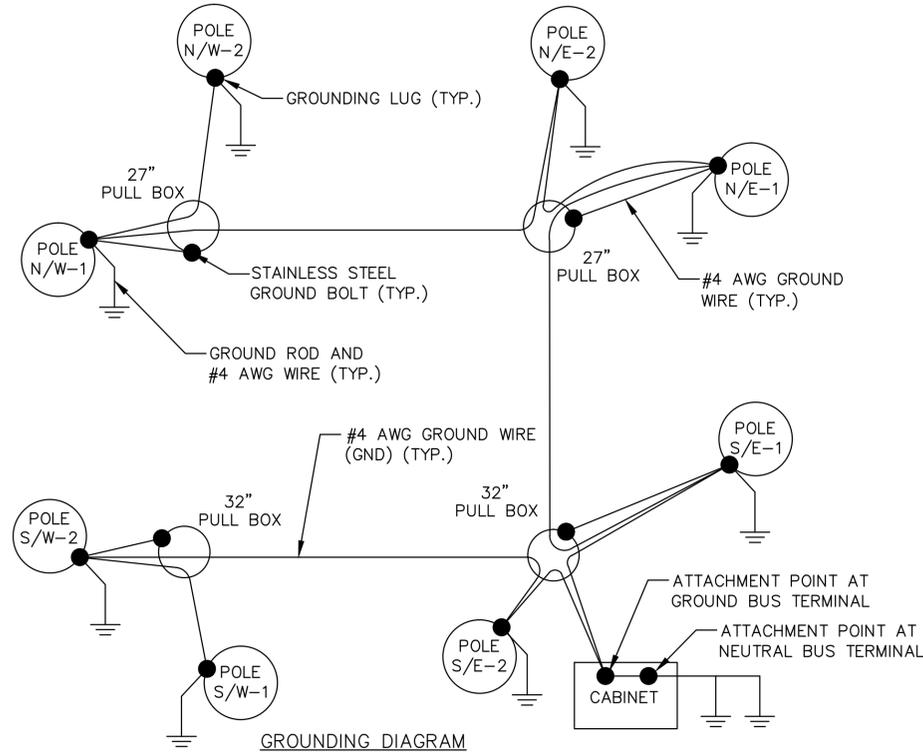
PHASE	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8
MOVEMENT	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB
MIN INITIAL	7	20	-	10	7	20	-	10
WALK	-	7	-	7	-	7	-	7
PED CLR	-	10	-	11	-	11	-	11
PASS / EXT	3.7	3.7	-	3.7	3.7	3.7	-	3.7
YELLOW	3.0	3.6	-	3.0	3.0	3.6	-	3.0
RED CLR	2.7	1.7	-	2.8	2.7	1.7	-	2.9
MAX GRN 1	15	40	-	20	15	40	-	20
MAX GRN 2	15	40	-	20	15	40	-	20
PED RECALL	OFF	ON	-	OFF	OFF	ON	-	OFF
VEH RECALL	OFF	ON	-	OFF	OFF	ON	-	OFF
MEMORY	OFF	ON	-	OFF	OFF	ON	-	OFF

VIDEO DETECTION ASSIGNMENTS

DETECTOR	CAMERA	PHASE	SIZE	PULSE	PRESENCE	LOOP DELAY DATA	
						DELAY (SEC.)	INHIBIT DELAY DURING GREEN ø
Z1	1	ø1	5'x25'		X	3	ø1
Z2	3	ø2	5.5'x5.5'	X		-	-
Z4A	2	ø4	5'x40'		X	3	ø4
Z4B	2	ø4	5.5'x40'		X	8	ø4
Z5	3	ø5	5'x25'		X	3	ø5
Z6	1	ø6	5.5'x5.5'	X		-	-
Z8A	4	ø8	5'x40'		X	3	ø8
Z8B	4	ø8	5.5'x40'		X	8	ø8



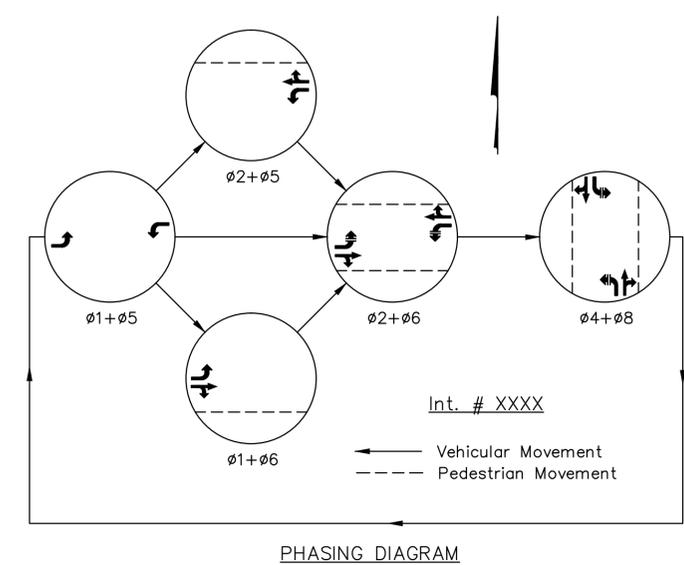
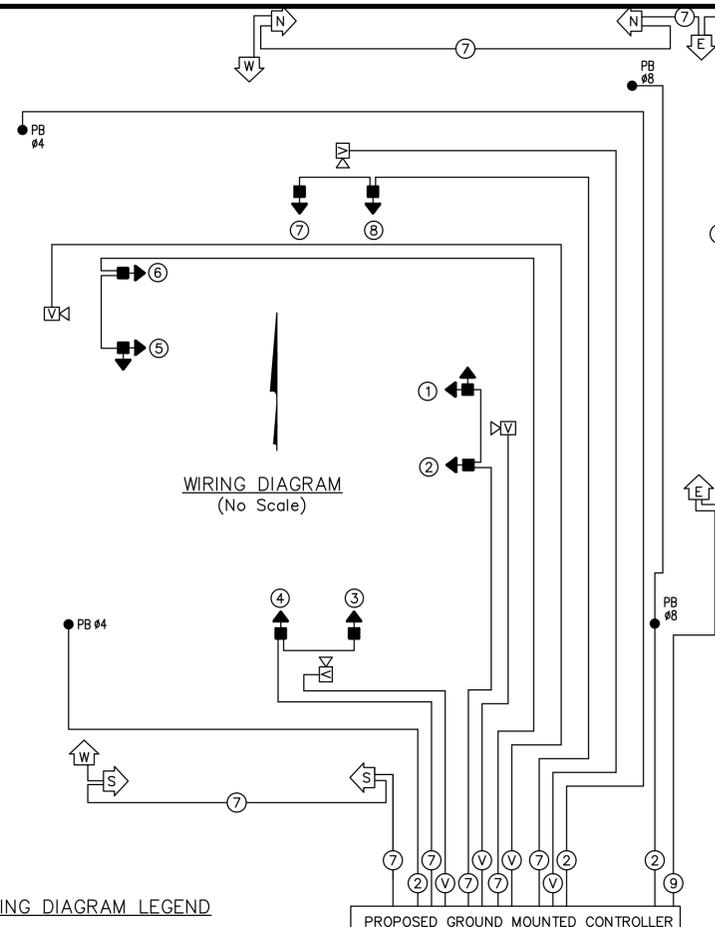
- NOTES:
- SET CONFLICT MONITOR FOR 10 SEC FLASH.
  - LOOP DETECTOR LEAD-IN CABLE SHALL BE USED FOR THE PEDESTRIAN PUSHBUTTONS. GROUND THE SHIELD ONLY AT THE CABINET.
  - BACK PANEL WIRING (FRONT SIDE JUMPERS ONLY):
    - A) HARD WIRE "PED RECYCLE" AND "REST-IN-WALK" TO GROUND. HOOK THE WTS AS INDICATED.
    - B) INS PLAN SHEET NOTES ARE ISSUED BY THE CITY OF COLUMBUS. ONLY USE NOTES APPLICABLE TO THE PROJECT.
    - C) INS OUTPUT AND ø5 OMITTED DURING THE FITTED DURING THE
  - USE DIODES TO PREVENT FEEDBACK ON MULTI-USE TERMINALS. CONTROLLER SOFTWARE PROGRAMMING
    - A) INITIALIZE IN ø2 & ø6 GREEN
    - B) ENABLE DUAL ENTRY ACTIVATE ø4 & ø8
    - C) ENABLE SIMULTANEOUS GAP OUT. ACTIVATE ø2, ø4, ø6 & ø8.



WIRING DIAGRAM LEGEND

- ▲ Vehicular Signal Head
  - ⬆ Pedestrian Signal Head
  - PB Pedestrian Pushbutton
  - ⓧ Video Detection Camera
  - ⓧ Video Detection Cable
  - ⓧ Proposed Power Source
- 6P— 2/C #6 AWG

WIRING DIAGRAM (No Scale)



CALCULATED SCALE

XXX

CHECKED

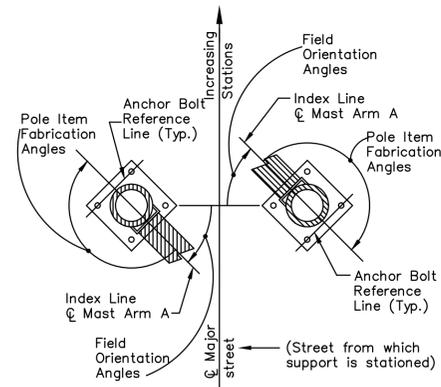
XXX

TRAFFIC SIGNAL DETAILS  
STREET A AT STREET C

PROJECT NAME

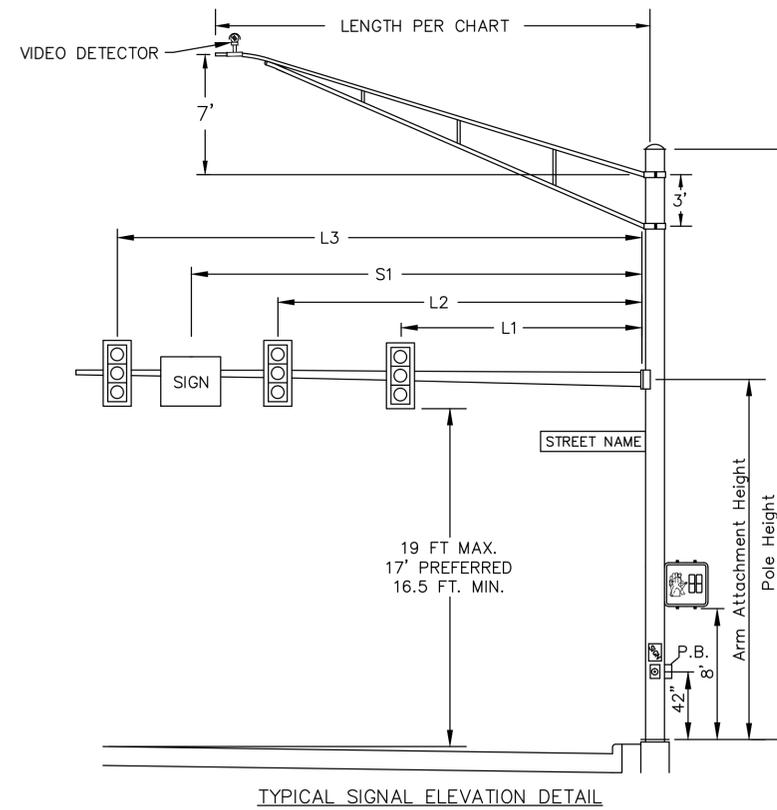
XXXX E

INTERSECTION	SHEET NO.	SUPPORT DESIGNATION	POLE COLOR	POLE DESIGN NO.	POLE HT. (FT.)	ARM LENGTH		OBJECT ATTACHMENT HEIGHT			DISTANCE FROM BUTT PLATE (FT.)			POLE FABRICATION DATA—CLOCKWISE FROM MAST ARM A AT 0 DEGREES							FIELD ORIENTATION		
						MASTARM (FT.)	VIDEO BRACKET ARM	MASTARM (FT.)	VIDEO BRACKET ARM	VIDEO DETECTOR MOUNTING HEIGHT	L1	L2	S1	VIDEO DETECTION CAMERA	ANCHOR BOLT REFERENCE LINE	PED. SIGNALS	PED. PUSH BUTTON	VIDEO BRACKET ARM	STREET NAME SIGNS	HANDHOLE	INDEX LINE ANGLE MAST ARM A	ANCHOR BOLT REF. LINE	FOUNDATION ELEVATION*
STREET A	##	S/E-1	Black	4	27'	32'	25'	21.5'	26'	33'	12.5'	23.5'	-	24'	90°	264°	255°	0°	0°/270°	180°	0°	90°	723.87
AT STREET C		S/E-2	Black	Pedestal	10.7'	-	-	-	-	-	-	-	-	-	90°	344°	-	-	-	180°	18°	108°	723.61
		S/W-1	Black	4	27'	32.5'	25'	21.5'	26'	33'	14'	24'	-	24'	90°	264°	-	0°	-	180°	90°	0°	723.62
		S/W-2	Black	Pedestal	10.7'	-	-	-	-	-	-	-	-	-	90°	347°	0°	-	-	180°	106°	16°	724.24
		N/W-1	Black	4	27'	32.5'	25'	21.5'	26'	33'	13'	24'	-	24'	90°	264°	257°	0°	0°/270°	180°	0°	90°	724.55
		N/W-2	Black	Pedestal	10.7'	-	-	-	-	-	-	-	-	-	90°	355°	-	-	-	180°	15°	105°	724.73
		N/E-1	Black	14	27'	50.5'	30'	21.5'	26'	33'	32'	42'	-	29'	90°	8°	5°	0°	-	180°	90°	0°	723.88
		N/E-2	Black	Pedestal	10.7'	-	-	-	-	-	-	-	-	-	90°	285°	-	-	-	180°	75°	165°	724.37



All angles measured clockwise.  
 Base plate is oriented square to Mast Arm A.  
 Mast Arm A is the largest arm if the support has two mast arms.

TYPICAL SIGNAL SUPPORT ORIENTATION DETAIL



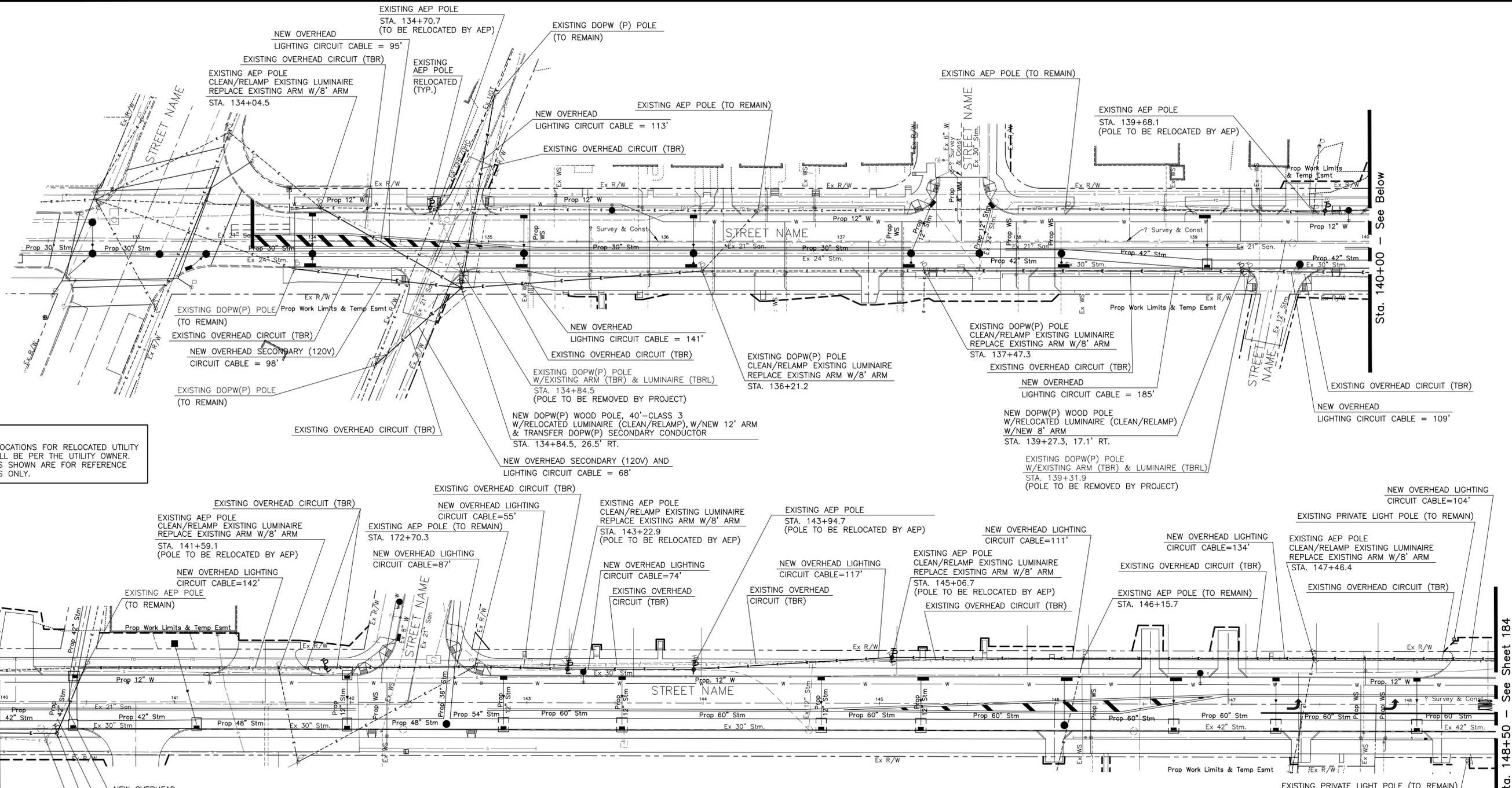
TYPICAL SIGNAL ELEVATION DETAIL

CALCULATED SCALE  
 XXX  
 CHECKED  
 XXX

POLE FABRICATION AND ORIENTATION DETAILS

PROJECT NAME

XXXX E



**NOTE:**  
ACTUAL LOCATIONS FOR RELOCATED UTILITY POLES WILL BE PER THE UTILITY OWNER. LOCATIONS SHOWN ARE FOR REFERENCE PURPOSES ONLY.

**LEGEND**

- Existing Overhead Circuit
- - - Proposed Overhead Circuit
- Other Overhead Electric or Communication
- ⊕ Pole W/Telephone, Power and Lighting
- AEP - American Electric Power
- DOPW(P) - Division Of Power And Water (Power)
- TBR - To Be Removed
- TBRL - To Be Relocated

**STREET LIGHTING NOTES**

The Street Lighting shall be constructed in accordance with the current City of Columbus, Ohio "Construction and Material Specifications"(CMS), (2002 Edition, Section 1000, titled "Street Lighting", including all supplements thereto, in force on the date of the contract. CMS shall govern all materials and workmanship involved in the improvements shown on these plans, except as such specifications are modified by the following or by the specifications details set forth herein.

The plan details shall be considered supplemental to MIS Specifications.

The Contractor is responsible to comply with all Local codes and ordinances pertinent to the progression on the work described within the Project Plans. Any required permits shall be obtained and paid for by the Contractor. The Contractor and Sub-Contractor shall be responsible for complying with all Federal, State and Local safety requirements, together with exercising precautions at all times for the protection of persons (including employees) and property. It is also the sole responsibility of the Contractor and Sub-Contractor to initiate, maintain and supervise all safety requirements, precautions and programs in connection with the work.

Luminaires shall be relocated as shown in the drawings. All relocated luminaires shall be wired in accordance with MIS-10 and shall be cleaned and re-lamped in accordance with MIS-68. Bracket Arms (MIS-6 and MIS-10), overhead circuit cable (MIS-143), overhead circuit ground (MIS-26), down guy anchors (MIS-1) and wooden poles (MIS-42) as required shall be furnished at poles owned by the Division of Power and Water (Power).

Prior to the relocation process, the Contractor and the Engineer shall inspect the luminaires for the purpose of documenting any existing damage. Any dents or other damage identified after the luminaire has been relocated and not documented prior to the relocation operation will be presumed to have been caused by the Contractor. The Contractor shall be required to repair or replace the damaged luminaire at the option of the Design Engineer at the Contractor's expense.

Aerial cable replaced by new circuit cable shall be removed and disposed of by the Contractor per MIS-46.

DOPW(P) wood poles and hardware called out for removal herein, shall be removed and disposed of as per MIS-46.

As-Built Record - The Contractor shall maintain a set of project record documents. These documents shall include reviewed shop drawings, change orders, equipment operating instructions, field test records, and as-built drawings. The as-built drawings shall be marked legibly in red with the actual location of equipment as constructed.

All equipment installed shall have locations marked in distances off a landmark at least every 25 feet or location at a later date. Final documents and plans shall be handed over to the City of Columbus Division of Power and Water. The Division of Power and Water (Power) has overhead primary, secondary and overhead street lighting throughout the project area. The Contractor is hereby required to contact OUPS 1-800-362-2764 forty-eight hours prior to conducting any activity within the construction area. The DOPW (Power) dispatch office number is: (614) 645-7627 (voice).

All items of work called for on the plans, for which no specific method of payment is provided, shall be performed by the Contractor and the cost of these shall be included in the unit price bid for the various related items. This includes, but is not limited to, such incidental items as relocation of mail boxes, saw cutting, and removal and/or relocation of signs, railroad ties, sprinklers, relocating roof or sump drains around light pole foundations, hand digging around underground utilities or other miscellaneous items.

**FOR THE DIVISION OF POWER AND WATER (POWER)**

The Division of Power and Water (Power) has overhead primary, secondary and overhead street lighting throughout the project area bounded by Hudson St., Cleveland Ave., Joyce Ave., and Woodland Ave. The Contractor is hereby REQUIRED to contact OUPS 1-800-362-2764 forty-eight hours prior to conducting any activity within the construction area. The DOPW (Power) dispatch office number is: (614) 645-7627 (voice).

Any required relocation, support, protection, or any other activity concerned with the City's electrical facilities in the construction area is to be performed by the Contractor under the direction of Division of Power and Water (Power) (DOPW) personnel and at the expense of the project. DOPW shall make all final connections to DOPW's existing electrical system at the expense of the project. The Contractor shall use material and make repairs to the City of Columbus street lighting system by following the Division of Power and Water (Power)'s "Material and Installation Specifications" (MIS) and the City of Columbus "Construction and Material Specifications" (CMS). Any new or re-installed street light system shall require testing as referred to in section 1000.18 of the CMS manual. The Contractor shall conform to the Division of Power and Water (Power)'s existing Conductor Safety policy and Hold Card System (MIS-95), copies of which are available from the Division of Power and Water (Power).

If any electric facility belonging to the Division of Power and Water (Power) is damaged in any manner by the Contractor, its agents, servants, or employees, and requires emergency repairs, the Division of Power and Water (Power) shall make all necessary repairs, and the expense of such repairs and other related costs shall be paid by the Contractor to the Division of Power and Water (Power), City of Columbus, Ohio.

**LIGHTING PLAN**

**PROJECT NAME**

XXXX-E

CALCULATED \_\_\_\_\_ CHECKED \_\_\_\_\_

HORIZ. SCALE

30  
0  
15  
30

↑

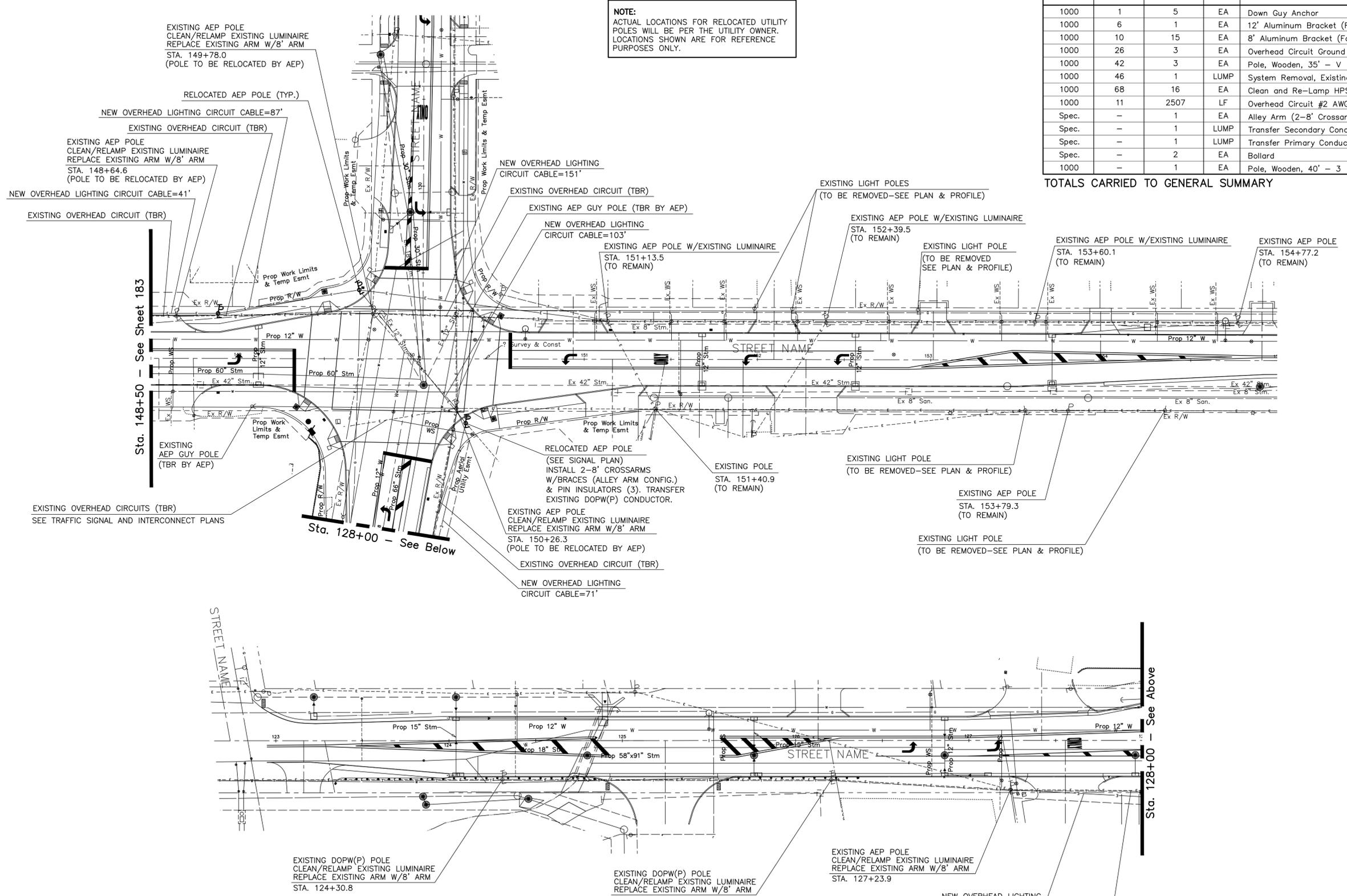
SUB-SUMMARY OF LIGHTING ITEMS

ITEM NUMBER	MIS NUMBER	QUANTITY TOTAL	UNIT	ITEM DESCRIPTION	REF
1000	1	5	EA	Down Guy Anchor	
1000	6	1	EA	12' Aluminum Bracket (For Wood Pole)	
1000	10	15	EA	8' Aluminum Bracket (For Wood Pole)	
1000	26	3	EA	Overhead Circuit Ground Unit	
1000	42	3	EA	Pole, Wooden, 35' - V	
1000	46	1	LUMP	System Removal, Existing Overhead	
1000	68	16	EA	Clean and Re-Lamp HPS Luminaires	
1000	11	2507	LF	Overhead Circuit #2 AWG Aluminum (2 wire)	
Spec.	-	1	EA	Alley Arm (2-8' Crossarms)	
Spec.	-	1	LUMP	Transfer Secondary Conductor	
Spec.	-	1	LUMP	Transfer Primary Conductor, Install Alley Arm	
Spec.	-	2	EA	Bollard	
1000	-	1	EA	Pole, Wooden, 40' - 3	

TOTALS CARRIED TO GENERAL SUMMARY

SCALE  
 30  
 0  
 15  
 30  
 CALCULATED  
 CHECKED

**NOTE:**  
 ACTUAL LOCATIONS FOR RELOCATED UTILITY POLES WILL BE PER THE UTILITY OWNER. LOCATIONS SHOWN ARE FOR REFERENCE PURPOSES ONLY.

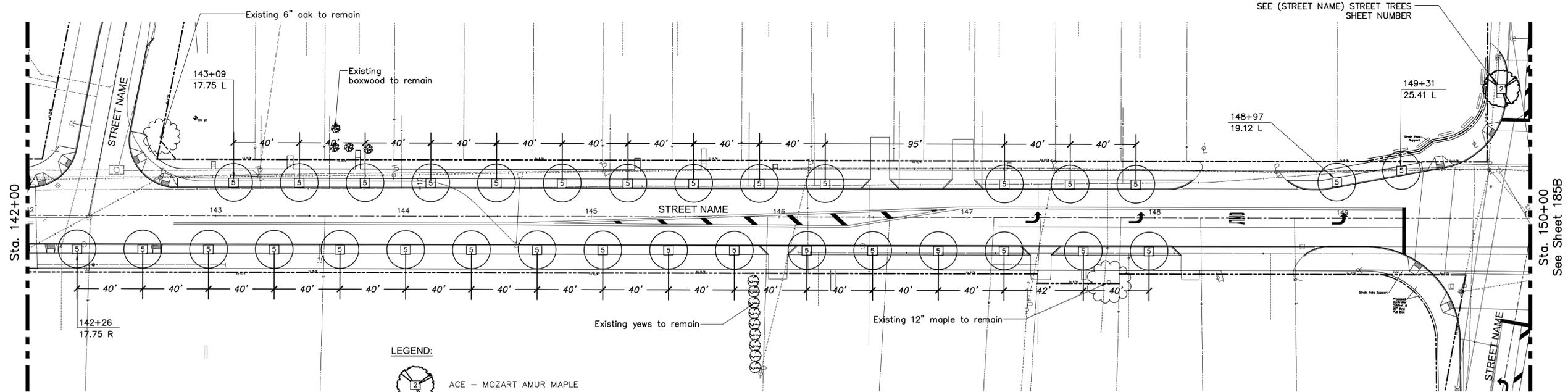
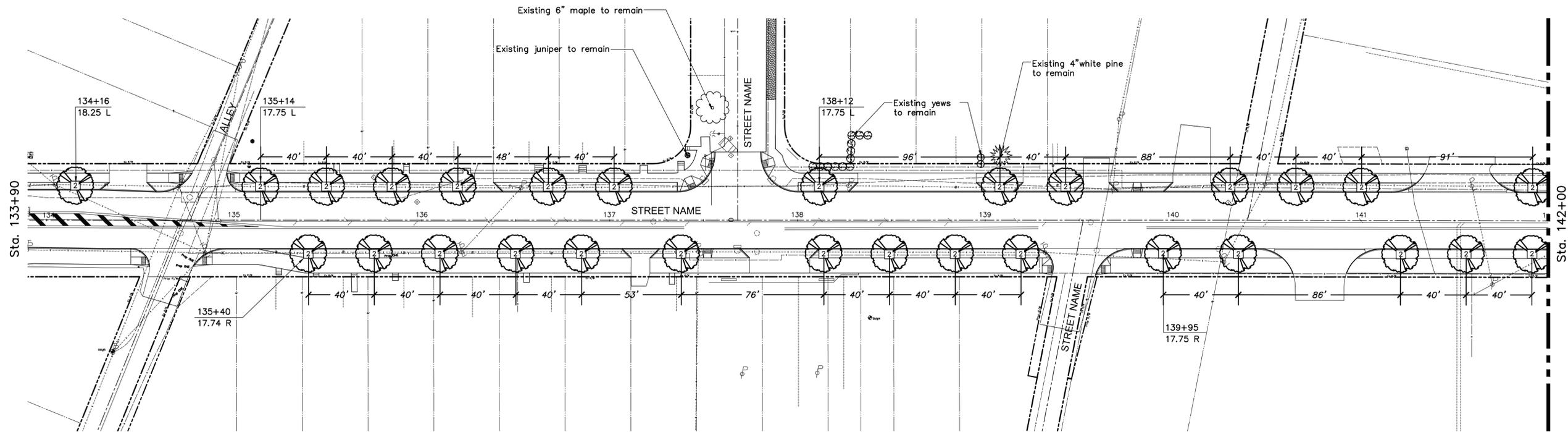


- LEGEND**
- Existing Overhead Circuit
  - Proposed Overhead Circuit
  - Other Overhead Electric or Communication
  - P Pole W/Telephone, Power and Lighting
  - AEP - American Electric Power
  - DOPW(P) - Division Of Power And Water (Power)
  - TBR - To Be Removed
  - TBRL - To Be Relocated

LIGHTING PLAN

PROJECT NAME

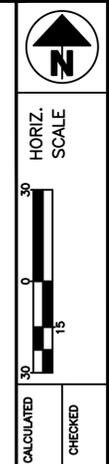
XXXX-E



LEGEND:

-  ACE - MOZART AMUR MAPLE
-  MAA - STARBURST AMUR MAACKIA
-  SYR - IVORY SILK TREE LILAC
-  EXISTING DECIDUOUS TREE TO REMAIN
-  EXISTING EVERGREEN TREE TO REMAIN
-  EXISTING SHRUBS TO REMAIN

HORIZ. SCALE

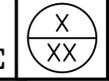


CALCULATED

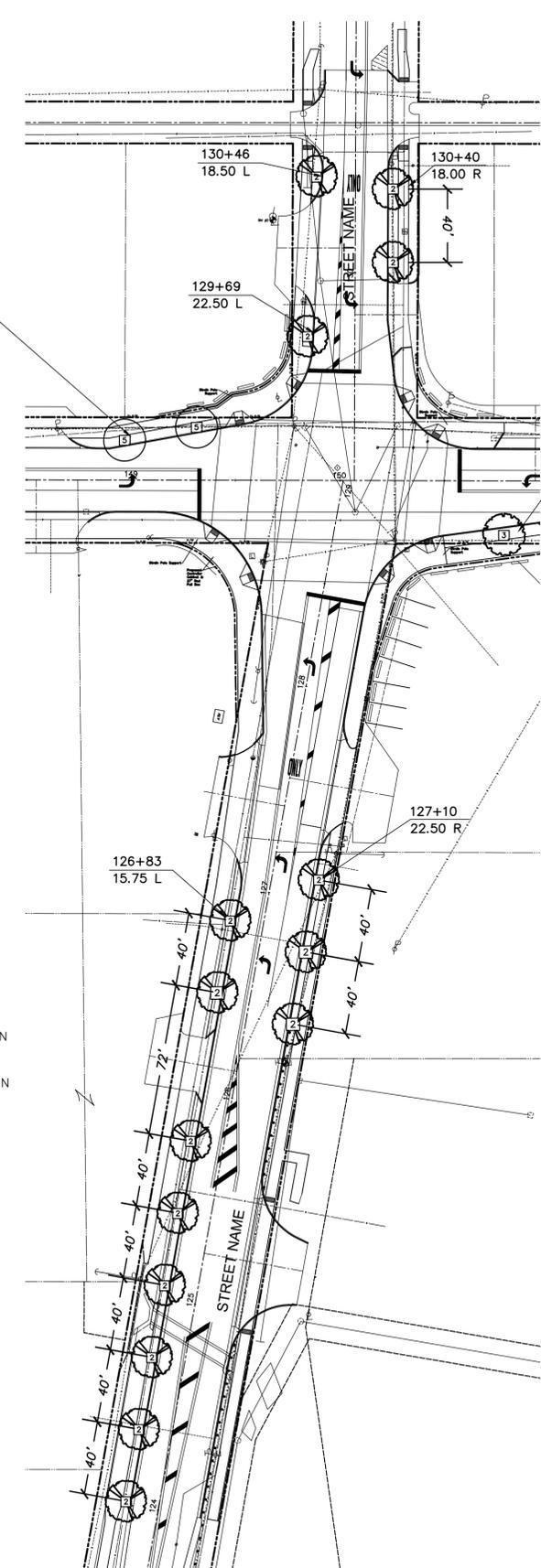
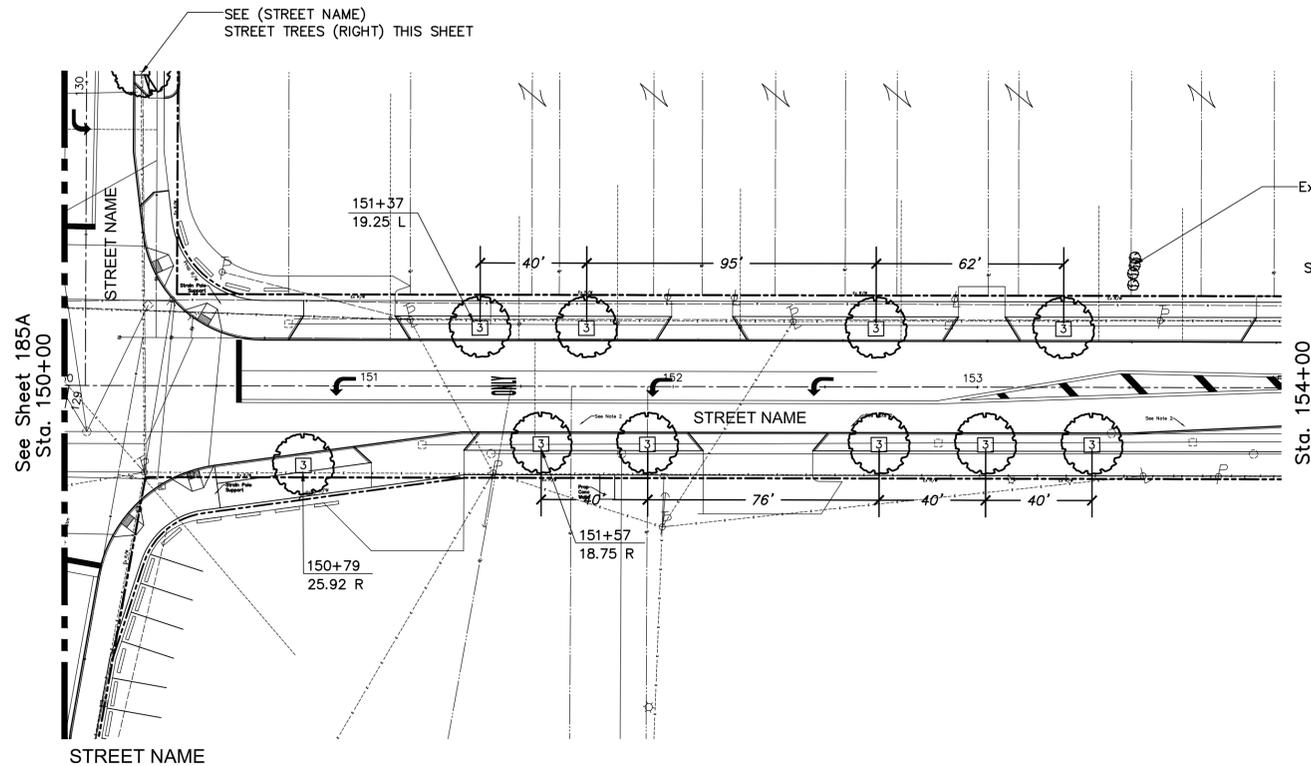
CHECKED

LANDSCAPE PLAN  
STA. 133+90 TO STA. 150+00

PROJECT NAME



REVISION 6/27/14  
 J:\Design and Construction\Design\Plan\_Review\Sample\_Sheets (E-Plan)\CAD\_Drawings\17\_01\_LANDSCAPING.dwg (Landscaping-2)



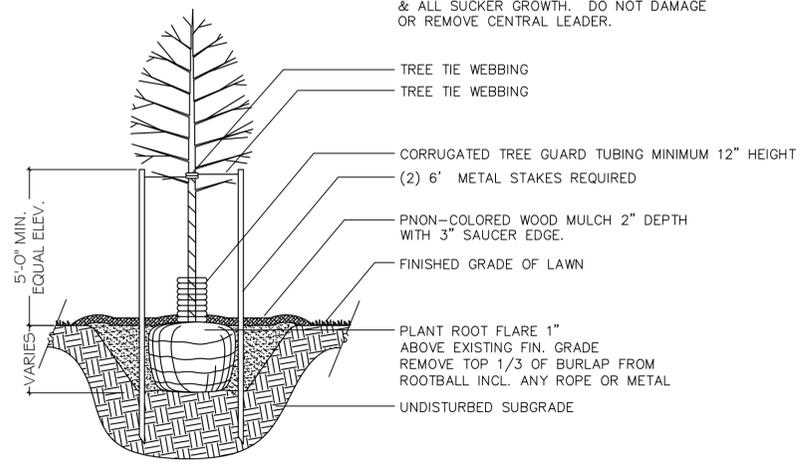
STREET NAME  
 SCALE: 1" = 30'

STREET NAME  
 SCALE: 1" = 40'

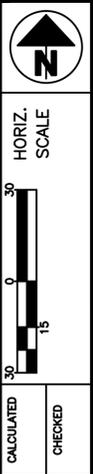
ITEM NO.	ESTIMATE QUANTITIES	KEY	UNIT	DESCRIPTION		
				PLANTING	SIZE	COMMENTS
661	44	ACE	EACH	ACER ginnala 'MOZART' MOZART AMUR MAPLE	2" CAL.	B&B
661	32	MAA	EACH	MAACKIA amurensis 'STARBURST' STARBURST AMUR MAACKIA	2" CAL.	B&B
661	10	SYR	EACH	SYRINGA retic ulata 'IVORY SILK' IVORY SILK TREE LILAC	2" CAL.	B&B, TREE FORM
				MISC.		
662	2150		GAL.	LANDSCAPE WATERING (25 GAL./TREE)		

- LEGEND:
- ACE - MOZART AMUR MAPLE
  - MAA - STARBURST AMUR MAACKIA
  - SYR - IVORY SILK TREE LILAC
  - EXISTING DECIDUOUS TREE TO REMAIN
  - EXISTING EVERGREEN TREE TO REMAIN
  - EXISTING SHRUBS TO REMAIN

NOTE:  
 REMOVE DEAD & BROKEN BRANCHES  
 & ALL SUCKER GROWTH. DO NOT DAMAGE  
 OR REMOVE CENTRAL LEADER.



STREET TREE PLANTING  
 N.T.S.



CALCULATED  
 CHECKED

LANDSCAPE PLAN STA. 150+00 TO STA. 154+00  
 LANDSCAPE PLAN STA. 124+00 TO STA. 130+50

PROJECT NAME

XXXX-E