

STATE OF OHIO 2010 SPECIFICATIONS

THE 2010 CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT, EXCEPT AS AMENDED AND/OR SUPPLEMENTED BY THESE PLANS.

STATIONING AND LOCATIONS

STATIONING AND LOCATIONS INDICATED ON THESE PLANS ARE APPROXIMATE. ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD AS DIRECTED BY THE ENGINEER.

ESTIMATED QUANTITIES

SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN TO BE USED "AS DIRECTED BY THE ENGINEER" SHALL BE MADE A MATTER OF THE RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT. ESTIMATED QUANTITIES OF MATERIALS SHALL NOT BE ORDERED FOR DELIVERY TO THE PROJECT UNLESS AUTHORIZED BY THE ENGINEER, AS PER CONTRACT DOCUMENTS, QUANTITIES MAY BE INCREASED, DIMINISHED OR DELETED AT THE OPTION OF THE COUNTY.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT, AND AGAIN BEFORE FINAL ACCEPTANCE BY THE COUNTY OF SUMMIT, REPRESENTATIVES AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE EXISTING SEWERS WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTIONS SHALL BE KEPT IN WRITING BY THE COUNTY.

CONSTRUCTION SCHEDULE AND INSPECTION

THE SUMMIT COUNTY ENGINEER'S OFFICE WILL PROVIDE INSPECTION SERVICES FOR THIS CONTRACT.

AFTER THE CONTRACT IS EXECUTED, THE CONTRACTOR SHALL CONTACT THE SUMMIT COUNTY ENGINEER'S OFFICE TO SCHEDULE A PRE-CONSTRUCTION MEETING. PRIOR TO THE MEETING, THE CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION SCHEDULE FOR REVIEW.

THE CONTRACTOR SHALL CONTACT THE ENGINEER'S OFFICE A MINIMUM 24 HOURS BEFORE HE BEGINS OR RESUMES WORK TO ARRANGE FOR INSPECTION.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE AND PAY FOR ANY ADDITIONAL PERMITS OR INSPECTION SERVICES WHICH MAY BE REQUIRED BY ANY OTHER AUTHORITY OR UTILITY.

WORK AUTHORIZATION

WHERE STORM SEWER AND DITCH CONSTRUCTION OCCURS ON PRIVATE PROPERTY, WORK AUTHORIZATION PERMITS SHALL BE SIGNED BY THE PROPERTY OWNERS WITHIN THE PROJECT LIMITS. COVENTRY TOWNSHIP TO OBTAIN ANY REQUIRED WORK AUTHORIZATIONS.

ALL CONSTRUCTION WORK SHALL BE CONFINED WITHIN THE WORK AUTHORIZATION LIMITS AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL COMPLY WITH ALL WORK AUTHORIZATION REQUIREMENTS.

POSITIVE DRAINAGE

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES AND SHALL BACKFILL AND GRADE EXCAVATED AREAS SO AS TO ELIMINATE PONDING ON THE SITE.

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 THE CONSTRUCTION LIMITS.

ROCK EXCAVATION

ANY ROCK EXCAVATION THAT MAY BE REQUIRED TO CONSTRUCT ITEM 603 CONDUIT SHALL BE INCLUDED IN THE PAYMENT FOR ITEM 603 CONDUIT. THE CONTRACTOR SHALL TAKE NOTE THAT NO COST ADJUSTMENTS WILL BE MADE FOR ROCK EXCAVATION.

CONDUIT END TREATMENT

IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE HEADWALLS, CONCRETE RIPRAP, ROCK CHANNEL PROTECTION, ETC.

EXISTING UTILITIES

THE CONTRACTOR SHALL NOTIFY IN WRITING, AT LEAST TWO (2) WORKING DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRE, POLES, PIPE, CONDUITS, MANHOLES, HYDRANTS, OR VALVES, OR OTHER STRUCTURES THAT WILL BE AFFECTED BY THIS OPERATION INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS. ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS. IF THE PROPOSED WORK IS FOUND TO CONFLICT WITH ANY EXISTING UTILITY DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY FOR ANY NECESSARY WORK AFFECTING THE UTILITY.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 O.R.C.

UTILITIES

THE FOLLOWING UTILITIES AND OWNERS MAY BE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

AT&T
50 W. BOWERY
AKRON, OHIO 44313
VERN LUNTSFORD-underground
OFFICE: 330-384-3610
CELL: 330-212-5732
BEN MILLER-Design
OFFICE: 330-384-2237

FIRST ENERGY
1910 W. MARKET ST.
BLDG. 3
AKRON, OHIO 44333
DAVIS MILLER
330-436-4056

DOMINION EAST OHIO
TRANSMISSION UNDERGROUND
7015 FREEDOM AVE. N.W.
NORTH CANTON, OHIO 44720
GEORGE TURNER
OFFICE: 330-266-2041
CELL: 330-575-7213

DOMINION EAST OHIO GAS
320 SPRINGSIDE DR.
AKRON, OHIO 44333
MARY LONG
330-664-2409

ONE-FOOT MINIMUM VERTICAL AND HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN DEO'S EXISTING PIPELINE(S) AND ALL OTHER IMPROVEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LATERAL AND SUBJACENT SUPPORT OF DEO'S PIPELINE(S). IN COMPLIANCE TO 29 CFR, PART 1926, SUBPART P, (SAFE EXCAVATION & SHORING). EXTREME CARE SHOULD BE TAKEN NOT TO HARM ANY DEO FACILITY OR APPURTENANCE. NOTIFY DEO IMMEDIATELY IF ANY HARM HAS BEEN INFLICTED UPON DEO'S FACILITIES (PIPELINES, ECT.) OR APPURTENANCES THERETO (PIPE COATING, TRACER WIRE, CATHODIC PROTECTION WIRES & DEVICES, TEST SITES, VALVE BOXES, ECT.)

ITEM 104: SCOPE OF WORK

THE WORK WITHIN THE LIMITS OF THIS IMPROVEMENT INCLUDES THE INSTALLATION AND/OR REMOVAL AND REPLACEMENT OF A CULVERT, HEADWALLS, STORM SEWER, AND PAVEMENT. THE ADJUSTMENT OR RECONSTRUCTION TO GRADE, AS REQUIRED, OF THE ROADWAY, DRAINAGE, STRUCTURES AND/OR APPURTENANCES WITHIN THE SUBJECT WORK LIMITS.

ITEM 201: CLEARING AND GRUBBING

ALL SURFACE OBJECTS: BRUSH, ROOTS, AND OTHER PROTRUDING OBSTRUCTIONS, INCLUDING ALL TREES AND STUMPS, SHALL BE CLEARED, REMOVED AND/OR GRUBBED AS DIRECTED BY THE ENGINEER IN THE FIELD; THIS ITEM SHALL ALSO INCLUDE ALL THE SPECIAL TREATMENT AS LISTED IN ITEM 201.03 SEC/ a,b,c, and d.

ITEM 202: REMOVAL OF STRUCTURES AND OBSTRUCTIONS

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER ODOT ITEM 603 CONDUIT.

ITEM 603: HOUSE CONNECTIONS

ALL EXISTING ROOF DRAINS, FOOTER DRAINS OR YARD DRAINS, WITHIN THE PROJECT LIMITS SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTING TO A STORM SEWER, MANHOLE OR CATCH BASIN.

THE LOCATION, TYPE, SIZE, AND GRADE OF REQUIRED REPLACEMENT WILL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

TIE-INS TO STORM SEWER SHALL BE CORE DRILLED AND MECHANICALLY FASTENED.

PAYMENT FOR THIS WORK SHALL BE INCLUDED WITH THE UNIT PRICE BID FOR ITEM 603 CONDUIT.

ITEM 603: CONNECTION TO EXISTING PIPE

WHERE THE PLANS PROVIDE FOR THE PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEMS.

ITEM 603: CONDUIT

WHEN THE ABOVE ITEM IS CALLED FOR ON THE PLANS (WITH REGARDS TO THE TYPE AND SIZE OF THE CONDUIT) ALL APPLICABLE PROVISIONS OF ITEM 603, AS SET FORTH IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS SHALL APPLY.

FOR THE BOX CULVERT, ALL PROVISIONS OF ODOT ITEM 706.05 SHALL APPLY EXCEPT FOR THE SIZE OF THE CULVERT. THE SIZE SHALL BE AS LISTED ON THE PLANS.

IN ADDITION TO THE ABOVE, THIS ITEM SHALL INCLUDE:

- THE RECONSTRUCTION OF DISTURBED FACILITIES AND SURFACES NOT ITEMIZED HEREIN, AS TO THEIR EXISTING CONDITIONS AND TO THE SATISFACTION OF THE ENGINEER. TOPSOIL WILL BE FURNISHED AND PLACED TO AN AVERAGE THICKNESS OF 4 INCHES.
- AND ANY OTHER ITEM NOT LISTED WHICH WILL ASSURE THE COMPLETION OF THE PROJECT.
- THE TEMPORARY AND PERMANENT RELOCATION OF ALL MAILBOXES, GUARDRAIL, HOUSE NUMBER SIGNS, NEWSPAPER BOXES AND ANY MISC. SIGNS NECESSARY FOR THE IMPROVEMENTS SHOWN WITHIN. ALL ITEMS SHALL BE RELOCATED, TEMPORARY AND PERMANENT, TO THE SATISFACTION OF THE ENGINEER.
- THE BACKFILL REQUIREMENTS AS LISTED IN THE TRENCH DETAIL.
- THE RECONNECTION OF EXISTING STORM SEWERS, YARD/HOUSE DRAINS TO THE PROPOSED STORM SEWER OR CATCH BASINS WHEN ENCOUNTERED IN THE FIELD DURING CONSTRUCTION OR WHERE LISTED IN THE IMPROVEMENT PLANS.
- THE REMOVAL OF EXISTING STRUCTURES, CONDUIT AND OBSTRUCTIONS SHALL BE PERFORMED AS STATED IN ITEM 202. ALL ITEMS SHALL BE COMPLETELY REMOVED FROM THE SITE AND DISPOSED OF ACCORDING TO ALL APPLICABLE LAWS AND REGULATIONS.

THE CASTINGS AND PIPES SHALL BE REMOVED BY THE CONTRACTOR.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 ITEM.

ITEM 606: LOCATIONS OF GUARDRAIL

THE LOCATION OF GUARDRAIL RUNS AS SHOWN IN THESE PLANS ARE SUBJECT TO ADJUSTMENT TO ASSURE THAT THE PLANNED INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC. THE COST FOR ALL POSTS AND FITTINGS REQUIRED FOR COMPLETE-IN-PLACE INSTALLATION OF GUARDRAIL SHOWN SHALL BE INCLUDED IN UNIT PRICE BID PER LINEAL FOOT OF GUARDRAIL.

ITEM 623 - CONSTRUCTION LAYOUT STAKES AS PER PLAN

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AS PER PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROCURE THE SERVICES OF A SURVEYOR REGISTERED IN THE STATE OF OHIO TO PROVIDE ALL CONSTRUCTION STAKING.

THE ABOVE REQUIREMENTS SHALL NOT BE CONSTRUED TO REPLACE ANY REQUIREMENTS AS STATED IN THE CURRENT PUBLICATION OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION MANUAL SPECIFICATIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE UNDER ITEM 623 - CONSTRUCTION LAYOUT STAKES, AS PER PLAN.

SUPPLEMENTAL SPECIFICATION 832: TEMPORARY SOIL EROSION & SEDIMENT CONTROL A.P.P.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH ODOT SUPPLEMENTAL SPECIFICATION 832, SUMMIT SOIL AND WATER CONSERVATION DISTRICT AND THE COUNTY OF SUMMIT ENGINEER CONSTRUCTION AND MATERIAL SPECIFICATIONS AND STANDARD DETAILS.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AN EROSION AND SEDIMENT CONTROL PLAN TO THE SUMMIT COUNTY ENGINEER'S OFFICE FOR APPROVAL. THE EROSION AND SEDIMENT CONTROL PLAN SHALL INCLUDE, AT A MINIMUM, FILTER FABRIC FENCE AND PERMANENT SEEDING AND MULCHING OF DISTURBED AREAS.

EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE ANY OTHER CONSTRUCTION COMMENCES ON THIS SITE.

THE CONTRACTOR SHALL, ON A DAILY BASIS, OR AS NEEDED, CLEAN ALL EXISTING STREETS OF MUD AND DIRT DURING THE CONSTRUCTION PHASE TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR THIS WORK SHALL BE MADE UNDER SUPPLEMENTAL SPECIFICATION 832, STORM WATER POLLUTION PREVENTION PLAN, LUMP SUM., A.P.P.

CALCULATED
DWS
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GENERAL NOTES

IRIS AVENUE/
BENDER AVENUE

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MAINTENANCE OF TRAFFIC

1. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING ALL LIGHTS, SIGNS AND BARRICADES FOR THE MAINTENANCE OF TRAFFIC AND SAFETY OF HIS WORK AT ALL THE LOCATIONS SHOWN ON THESE PLANS AND AS MAY BE UTILIZED IN CONFORMANCE WITH THE STATE OF OHIO "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", CURRENT EDITION, LATEST REVISION AND/OR AS DIRECTED BY THE ENGINEER.

2. THE CONTRACTOR HAS THE OPTION OF CLOSING A ROAD FOR THE PURPOSE OF CONSTRUCTION. PRIOR TO THE START OF CONSTRUCTION, MAINTENANCE OF TRAFFIC PLANS SHALL BE PROVIDED TO THE SUMMIT COUNTY ENGINEER'S OFFICE FOR APPROVAL FOR ANY ROADS THAT MAY BE REQUIRED TO BE CLOSED DURING THE DURATION OF CONSTRUCTION. THE DURATION OF THE ROAD CLOSURE SHALL BE LIMITED TO 60 HOURS. THE DETOUR ROUTES ARE SHOWN ON THE PROJECT LOCATION MAPS.

IF THE ROADWAY IS NOT CLOSED:

- THE CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC THROUGH HIS WORK ZONE AT ALL TIMES. THIS SHALL BE ACCOMPLISHED THROUGH THE USE OF APPROPRIATE SIGNS AND FLAGGERS DURING ACTIVE PERIODS OF WORK.

- AT THE END OF EACH WORK DAY AND AT ALL TIMES THE CONTRACTOR IS NOT ENGAGED IN CONSTRUCTION ACTIVITIES, BOTH LANES OF TRAFFIC SHALL BE OPEN TO TRAFFIC. SHOULD THE CONTRACTOR BE UNABLE TO OPEN BOTH LANES OF TRAFFIC AT THE END OF EACH WORKDAY, HE SHALL MAINTAIN TWO-WAY TRAFFIC AS OUTLINED IN 2. ABOVE OR SUBMIT AN ALTERNATE METHOD OF MAINTAINING TRAFFIC FOR APPROVAL BY THE ENGINEER.

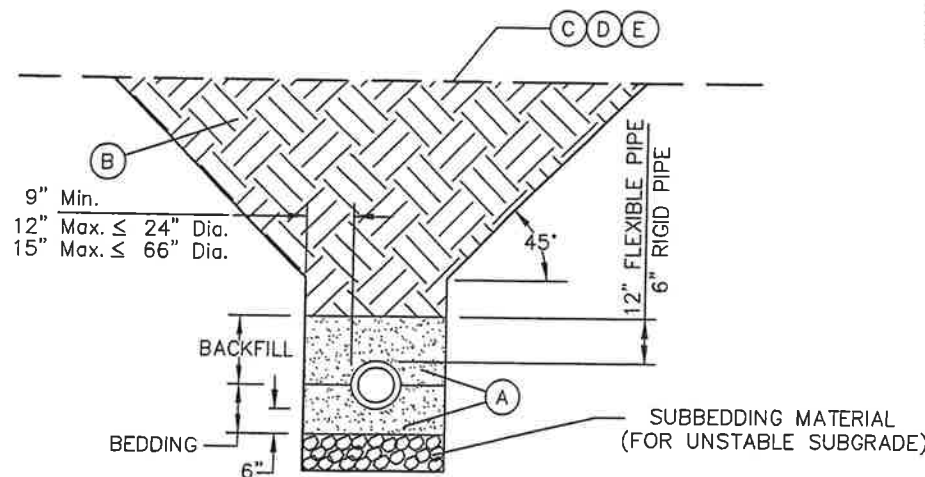
- THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN A MANNER SUCH THAT VEHICULAR INGRESS AND EGRESS SHALL BE PROVIDED AT ALL TIMES FOR PROPERTIES ADJACENT TO THE WORK. FOR ADDITIONAL REQUIREMENTS SEE ITEM 104.04.

3. ALL WORK REQUIRED TO ACCOMPLISH THE ABOVE MAINTENANCE OF TRAFFIC, SHALL BE PAID FOR AS FOLLOWS:

ITEM 614 - MAINTAINING TRAFFIC, LUMP SUM

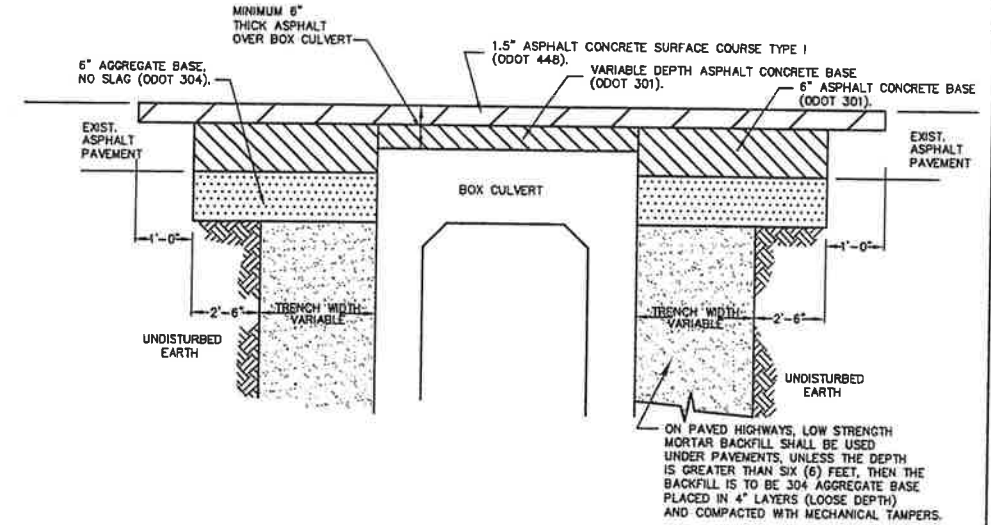
STORM SEWER OR CONNECTION TRENCH DETAIL

NOT TO SCALE



- NOTE:**
- (A) CRUSHED STONE AGGREGATE No. 67, THOROUGHLY COMPACTED (NO SLAG) INSTALLED PER ASTM D-2321 CLASS 1.
 - (B) TRENCH BACKFILL:
 - INSTALLATION UNDER PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH TYPE 1 OR TYPE 2 O.D.O.T. ITEM 613 LOW STRENGTH MORTAR BACKFILL. INSTALLATION WITHIN A 45-DEGREE INFLUENCE LINE FROM THE PAVEMENT EDGE SHALL BE INSTALLED IN ACCORDANCE WITH O.D.O.T. ITEM 304 BACKFILL.
 - SLAG MATERIAL OR RECYCLED CONCRETE IS NOT ACCEPTABLE. THE COUNTY ENGINEER MAY CONSIDER USE OF OTHER MATERIALS UNDER SPECIAL CONDITIONS. A WRITTEN REQUEST, INCLUDING EVIDENCE THAT THE REPLACEMENT MATERIAL WILL BE SUITABLE FOR BACKFILL MUST BE SUBMITTED FOR APPROVAL. SEE PIPE POLICY FOR ADDITIONAL REQUIREMENT FOR REPLACEMENT MATERIAL.
 - COMPACTION REQUIREMENTS ARE AS FOLLOWS:
 - (a) UNDER PROPOSED PAVEMENT
BACKFILL MATERIAL SHALL CONSIST OF TYPE 1 OR TYPE 2 LOW STRENGTH MORTAR BACKFILL (O.D.O.T. ITEM 613)
 - (b) NOT UNDER PROPOSED PAVEMENT BUT WITHIN A 45 DEGREE INFLUENCE FROM THE EDGE OF PAVEMENT -
ANY BACKFILL MATERIAL MUST BE COMPACTED TO AT LEAST 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY WITH THE MATERIAL'S MOISTURE CONTENT ADJUSTED TO WITHIN +1-2% OF THE OPTIMUM PRIOR TO COMPACTION.
 - (c) WITHIN THE R/W BUT NOT UNDER PAVEMENT OR WITHIN THE 45 DEGREE INFLUENCE LINE - ANY BACKFILL OR FILL MATERIAL MUST BE COMPACTED TO AT LEAST 85% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY WITH THE MATERIAL'S MOISTURE CONTENT ADJUSTED TO WITHIN +1-2% OF THE OPTIMUM PRIOR TO COMPACTION.
 - (d) IN DEPTHS OVER 8 FEET AND WHEN COMPACTING WITH A HOE-PAC OR EQUAL HYDRAULIC COMPACTOR, A CONTRACTOR MAY INSTALL THE FIRST LIFT UP TO 3 FEET IN DEPTH BEFORE COMPACTION. SUBSEQUENT LIFTS SHALL BE COMPACTED AS PER THE ABOVE.
ADDITIONALLY, ODOT ITEM 603.10 AND 603.11 MUST BE ADHERED TO. IF ANY CONFLICTING COMPACTION PERCENTAGES ARE FOUND TO EXIST BETWEEN THOSE INDICATED ABOVE AND ODOT SPECIFICATIONS, THE HIGHER COMPACTION PERCENTAGE SHALL GOVERN.
 - (C) ITEM 659 - 4" TOPSOIL
 - (D) ITEM 659 - SEEDING & MULCHING
 - (E) ITEM 659 - FERTILIZER

THESE REQUIREMENTS ARE TO BE FOLLOWED REGARDLESS OF THE MATERIAL USED TO BACKFILL OR FILL. THESE REQUIREMENTS PERTAIN TO INSTALLATION OF ALL UTILITIES, NOT JUST THE STORM SEWER.



FLEXIBLE PAVEMENT RESTORATION DETAIL BENDER AVENUE

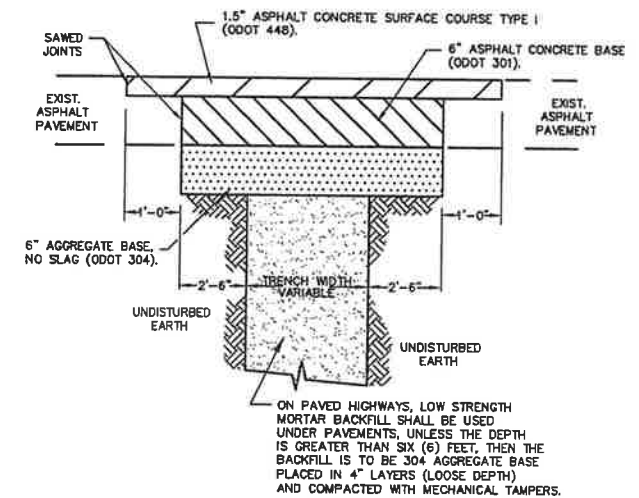
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PAVEMENT AND BERM RESTORATION

PAVEMENT AND BERM THAT IS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED PER THE PAVEMENT RESTORATION DETAIL.

ROADWAY MATERIAL COMPOSITION

- ITEM 301 - ASPHALT CONCRETE BASE-VARIABLE DEPTH, 4.5" MIN.
- ITEM 304 - 6" AGGREGATE BASE
- ITEM 448 - 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE I



FLEXIBLE PAVEMENT RESTORATION DETAIL IRIS AVENUE

NOT TO SCALE

PAVEMENT AND BERM RESTORATION

PAVEMENT AND BERM THAT IS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED PER THE PAVEMENT RESTORATION DETAIL.

ROADWAY MATERIAL COMPOSITION

- ITEM 301 - 6" ASPHALT CONCRETE BASE
- ITEM 304 - 6" AGGREGATE BASE
- ITEM 448 - 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE I

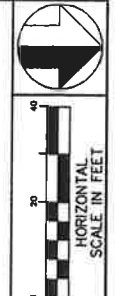
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GENERAL NOTES & DETAILS

**IRIS AVENUE/
BENDER AVENUE**

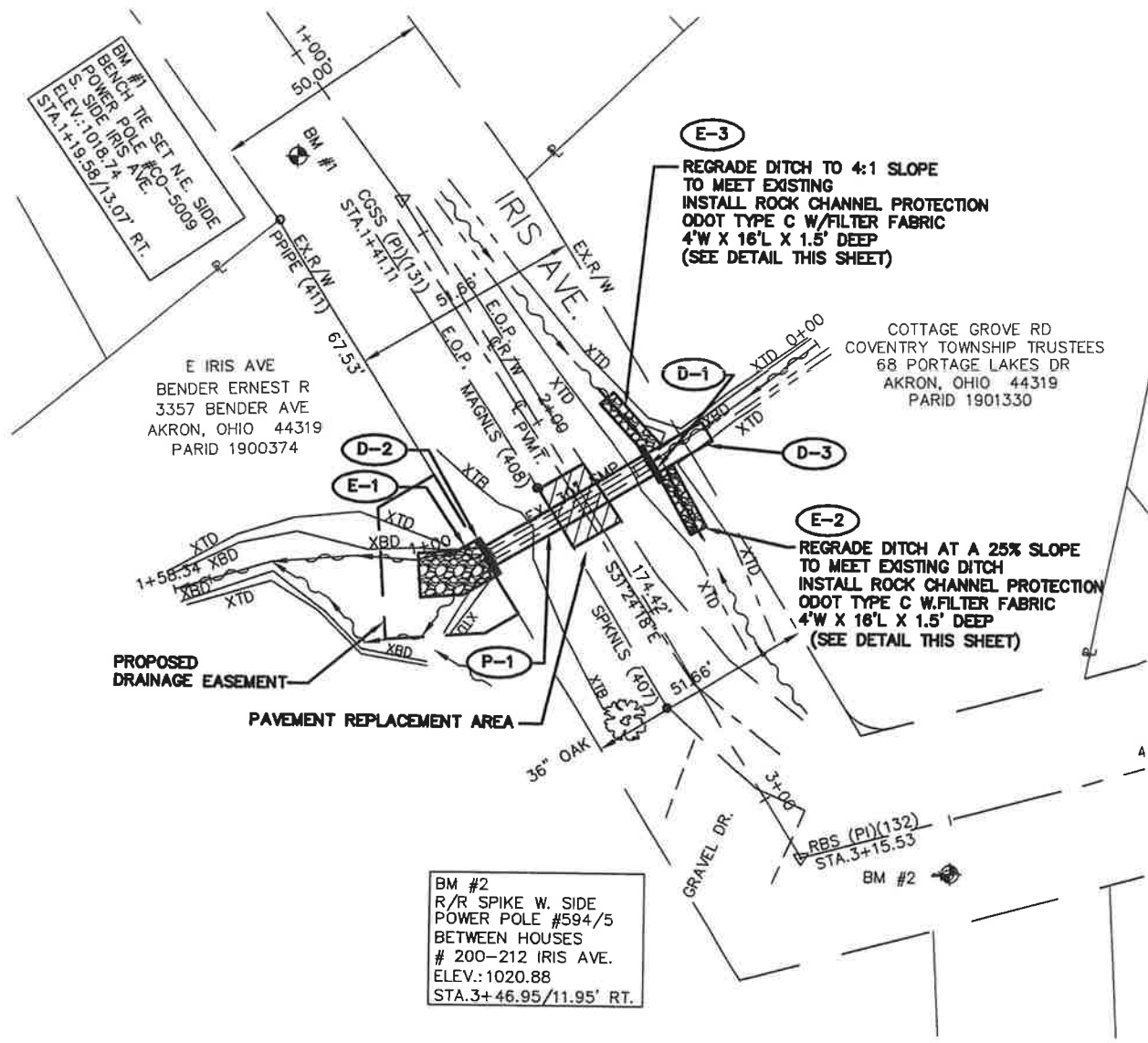
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**PLAN AND PROFILE - IRIS AVENUE CULVERT
COTTAGE GROVE SUBDIVISION - PHASE 1**

IRIS AVE.



REF. NO.	STATION	SIDE	601	601	601	602	603
			ROCK CHANNEL PROTECTION TYPE C CU. YD.	ROCK CHANNEL PROTECTION TYPE A W/FILTER CU. YD.	CONCRETE MASONRY RIPRAP CUTOFF WALL SQ. YD.	CONCRETE MASONRY HW-2.2 CU. YD.	60" CONDUIT TYPE A LIN. FT.
D-1	2+21.11	LT.				1.93	
P-1	2+20.89 - 2+21.12	LT.-RT.					43
D-2	2+20.88	RT.				1.93	
D-3	2+21.11	LT.			7.78		
E-1	2+20.88	RT.		16.67			
E-2	2+23.62 - 2+39.62	LT.	3.56				
E-3	2+03.14 - 2+18.62	LT.	3.56				
TOTALS			7.12	16.67	7.78	3.86	43

ITEM 448 - 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE 1, PG 64-22	0.85 CU. YDS.
ITEM 301 - 6" ASPHALT CONCRETE BASE, PG 64-22	2.94 CU. YDS.
ITEM 304 - 6" AGGREGATE BASE	2.94 CU. YDS.

NOTE: THE COUNTY WILL ONLY PAY UP TO FOR THE ABOVE QUANTITIES FOR THE MATERIAL USED, ANY ADDITIONAL QUANTITIES WILL BE AT THE CONTRACTOR'S EXPENSE.

LEGEND

- PROPOSED DITCH
- EXISTING DITCH
- EXISTING HYDRANT
- EXISTING UTILITY POLE
- EXISTING VALVE
- EXISTING MAIL BOX
- EXISTING SIGN
- XTD = EXISTING TOP OF DITCH
- XBD = EXISTING BOTTOM OF DITCH
- XTB = EXISTING TOP OF BANK

SURVEY MONUMENTATION LEGEND

- CGSS = COTTON GIN SPINDLE SET
- RBS = REBAR SET
- MAGNLS = MAG NAIL SET
- SPKNLS = SPIKE NAIL SET

PROPOSED DITCH REGRADE SECTION

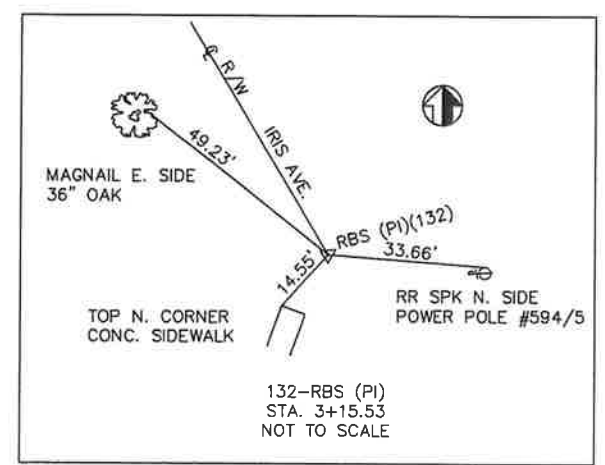
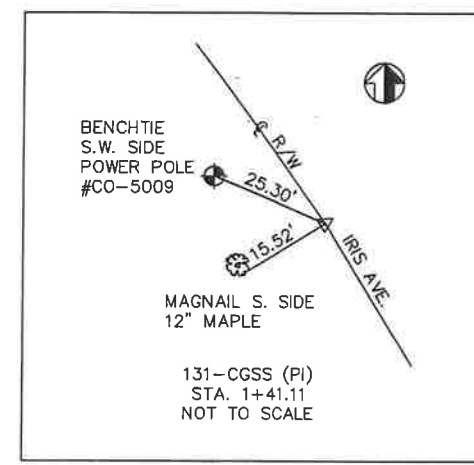
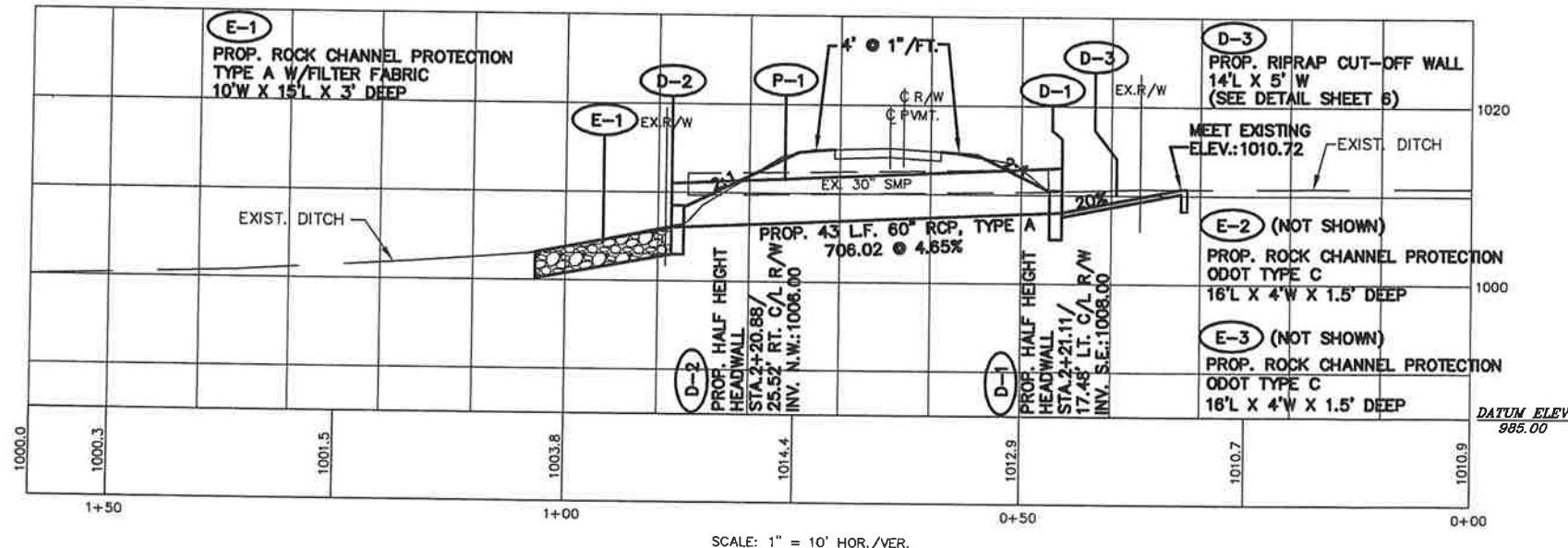
UNDERGROUND UTILITIES

2 WORKING DAYS
BEFORE YOU DIG
1-800-362-2764
1-800-925-0988

NOTE:
CONTRACTOR TO PROVIDE BYPASS PUMPING DURING WET WEATHER CONSTRUCTION. IF CONSTRUCTION IS PERFORMED DURING DRY SEASONS, BYPASS PUMPING MAY NOT BE NECESSARY.

SEE SHEET 6 FOR EASEMENT DETAIL

Property lines shown are for the purpose of showing basic division of ownership and do not represent an actual survey. This mapping should never be relied upon to establish the location of lines or the location of any other feature in relation to a property line. To establish a property line or the relationship of a feature to a property line you must engage the services of a Professional Surveyor registered to practice in the State of Ohio.



BM/GMON, GIS 212
 STA.13+99.66/16.11' LT.
 ELEV.: 997.30

3396 BENDER AVE.
 GENOVESE, ZANA S. & JAMES D. TRUSTEES
 3430 S BENDER
 PARID:1902379

SEE GRADING TYPICAL SECTION FOR GRADING DETAILS

PAVEMENT REPLACEMENT AREA
 NO0°07'32"E

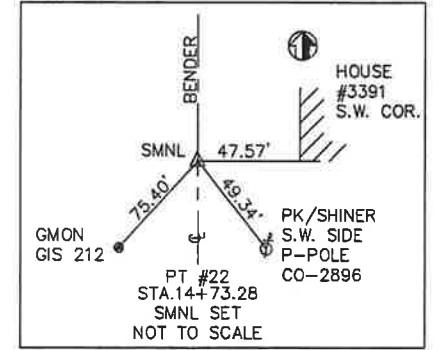
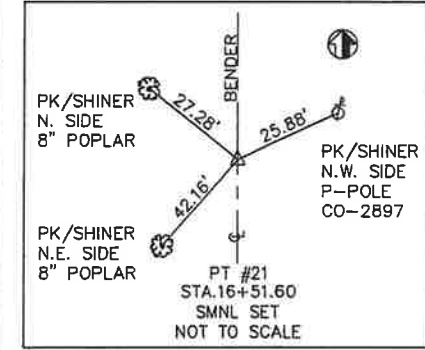
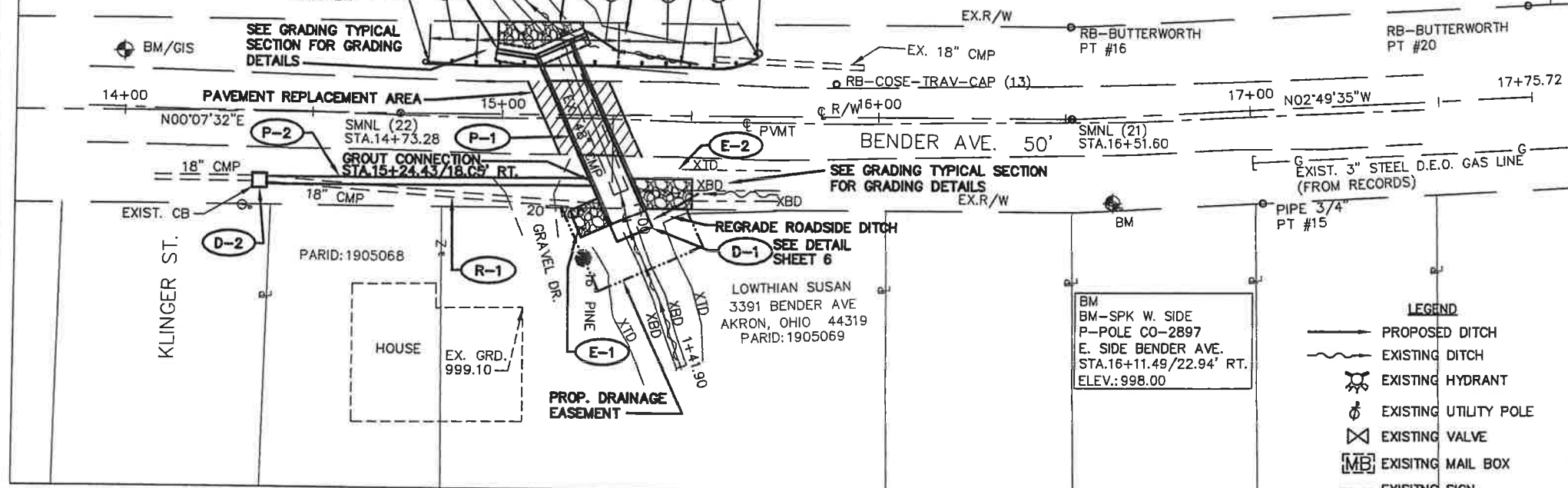
GR-1 NOTES:
 * ALL GUARDRAIL POSTS - EXCEPT THE FIRST POST ON THE SOUTH END AND THE FIRST TWO POSTS ON THE NORTH END - ARE TO BE INSTALLED 5.25' FROM THE EDGE OF PAVEMENT.
 1. 12.5 L.F. TYPE T ANCHOR ASSEMBLY
 2. 37.5 L.F. 18'-9" LONG-SPAN GUARDRAIL
 3. 25.0 L.F. TYPE 5 GUARDRAIL
 4. 12.5 L.F. TYPE 5 GUARDRAIL (20'R FULL WRAP END SECTION)

NOTE:
 CONTRACTOR TO PROVIDE BYPASS PUMPING DURING WET WEATHER CONSTRUCTION. IF CONSTRUCTION IS PERFORMED DURING DRY SEASONS, BYPASS PUMPING MAY NOT BE NECESSARY.

ALL CONSTRUCTION ACTIVITIES ARE REQUIRED TO STAY WITHIN THE ROAD R/W ON THE WEST SIDE OF THE ROAD.

SEE SHEET 6 FOR EASEMENT DETAILS
 SEE SHEET 7-10 FOR BOX CULVERT HEADWALL DETAILS

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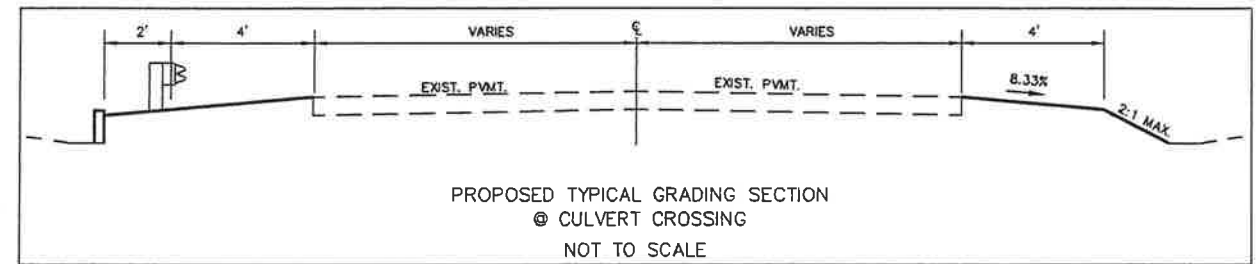


- LEGEND**
- PROPOSED DITCH
 - - - EXISTING DITCH
 - ⊕ EXISTING HYDRANT
 - ⊕ EXISTING UTILITY POLE
 - ⊕ EXISTING VALVE
 - MB EXISTING MAIL BOX
 - EXISTING SIGN

XTD = EXISTING TOP OF DITCH
 XBD = EXISTING BOTTOM OF DITCH

UNDERGROUND UTILITIES
 2 WORKING DAYS
 BEFORE YOU DIG
 1-800-362-2764
 1-800-925-0988

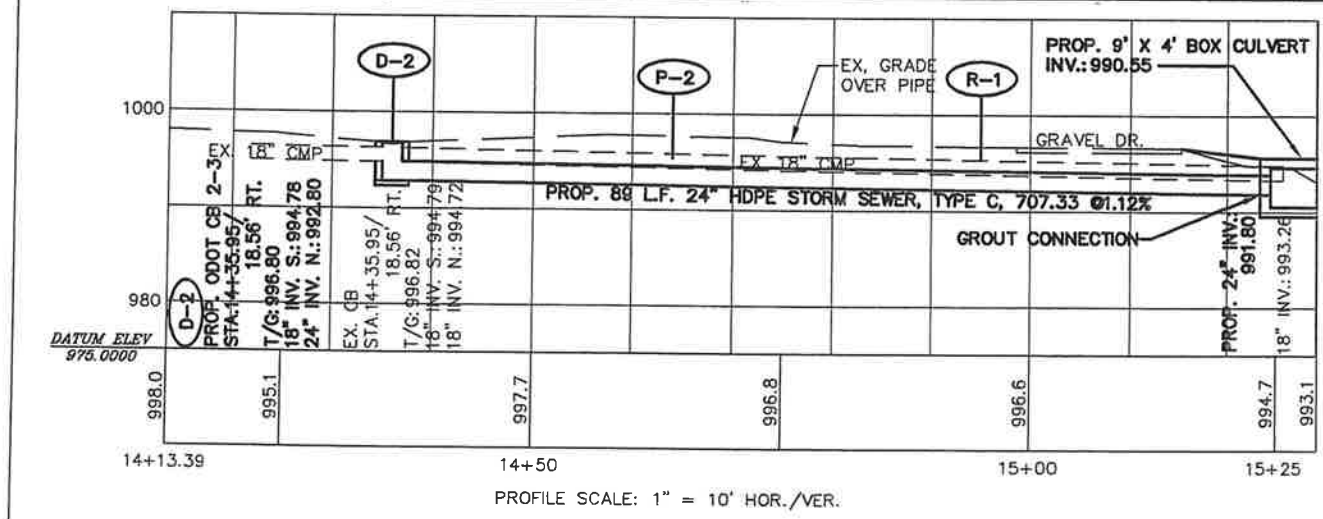
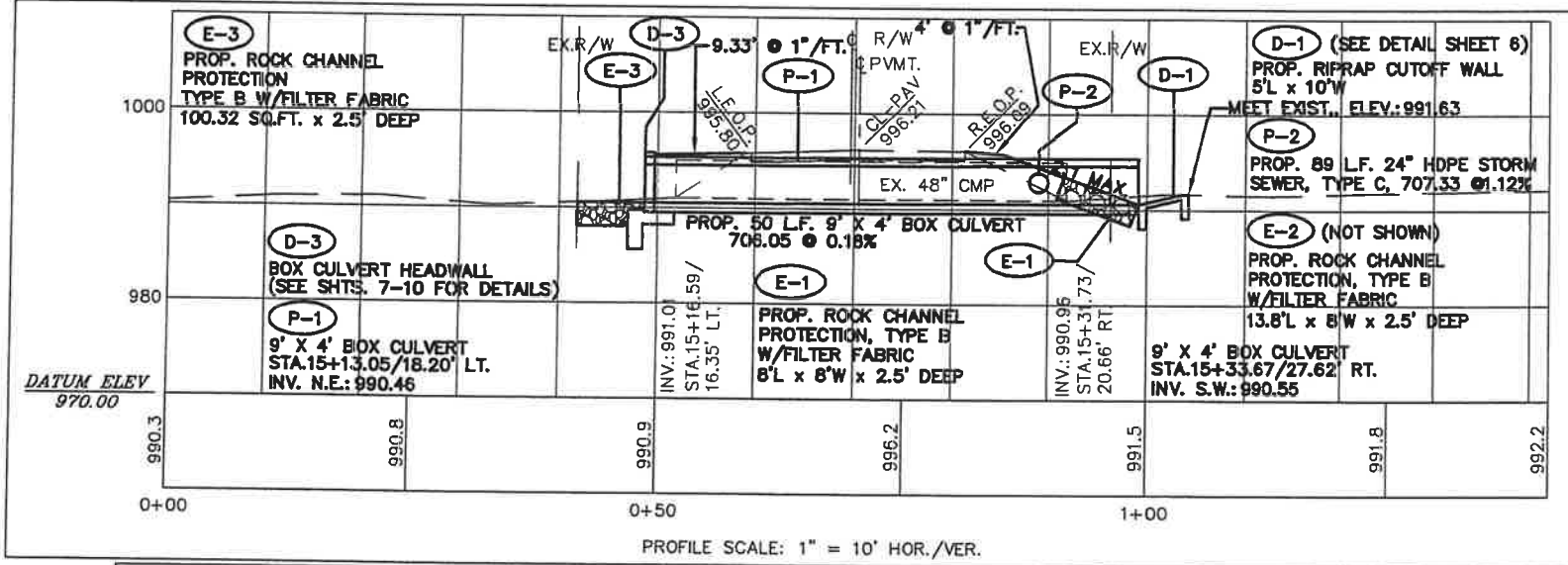
SURVEY MONUMENTATION LEGEND
 SMNL = SURVEY MARKER NAIL SET



ESTIMATED PAVEMENT REPLACEMENT QUANTITIES

ITEM 448 - 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE 1, PG 64-22	2.00 CU. YDS.
ITEM 301 - VARIABLE DEPTH/6" ASPHALT CONCRETE BASE, PG 64-22	6.10 CU. YDS.
ITEM 304 - 6" AGGREGATE BASE	2.85 CU. YDS.

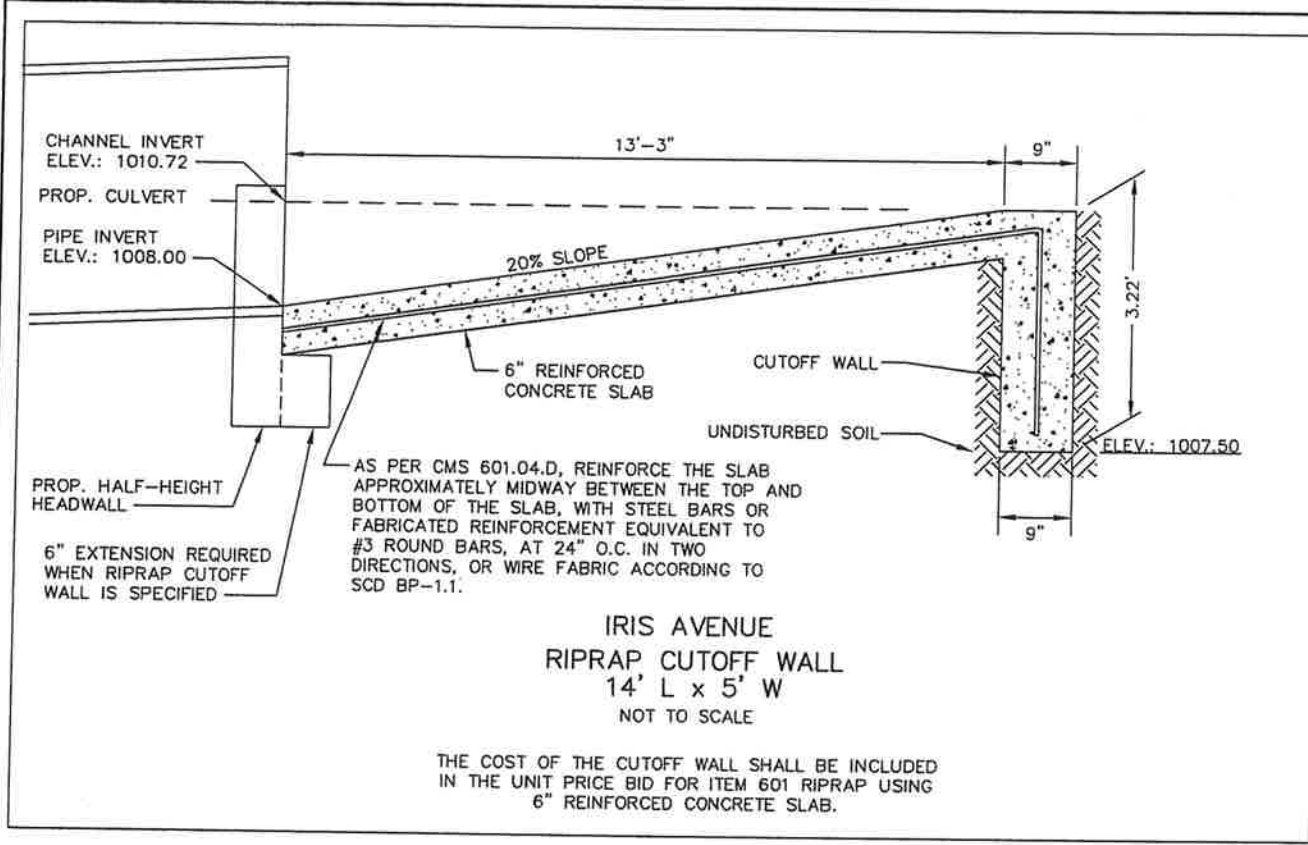
NOTE: THE COUNTY WILL ONLY PAY UP TO FOR THE ABOVE QUANTITIES FOR THE MATERIAL USED, ANY ADDITIONAL QUANTITIES WILL BE AT THE CONTRACTOR'S EXPENSE.



ESTIMATED QUANTITY TABLE

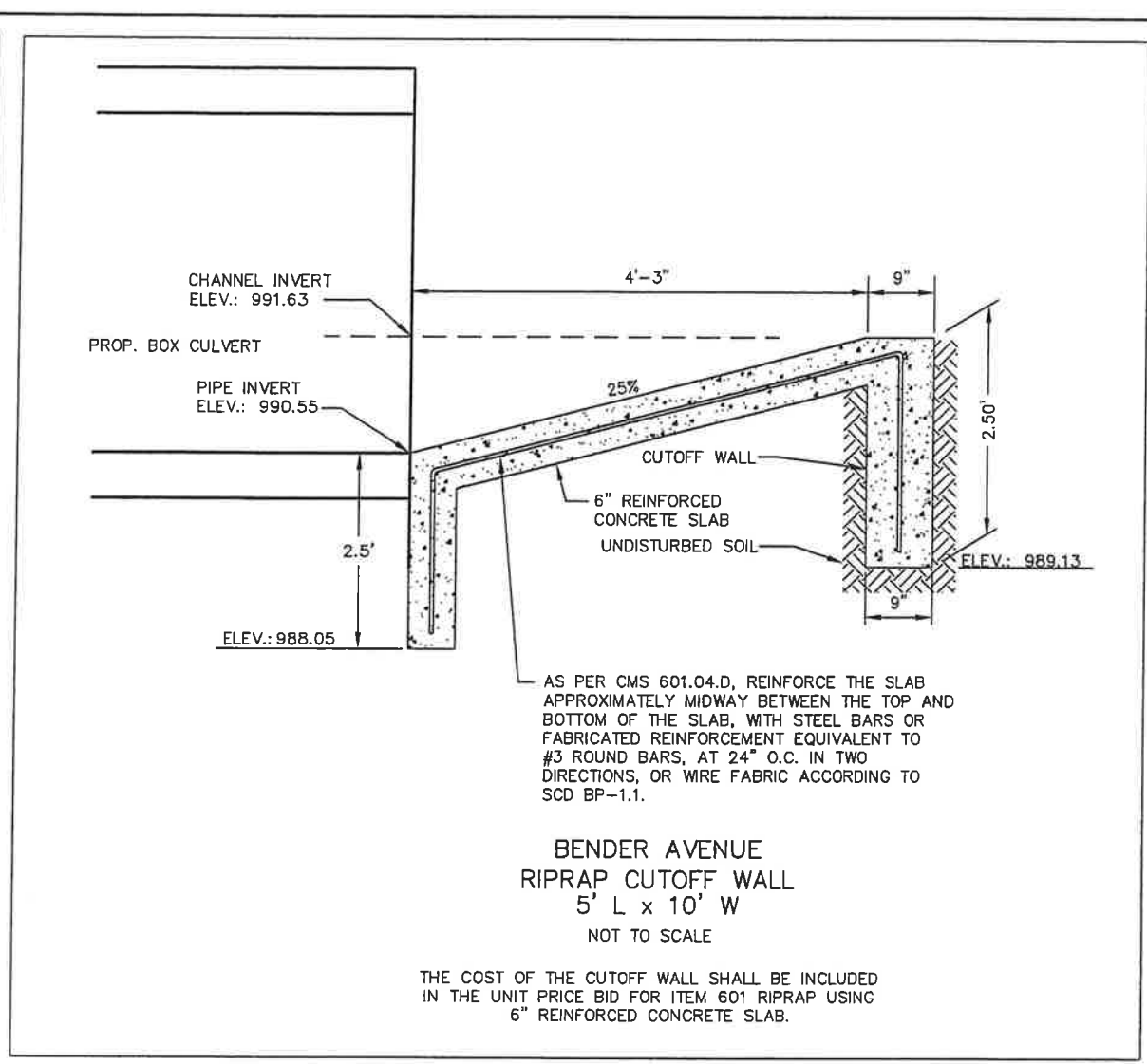
REF. NO.	STATION	SIDE	202	601	601	603	603	604	606	606	606
			PIPE REMOVED 18" CMP	ROCK CHANNEL PROTECTION TYPE B	CONCRETE MASONRY RIPRAP CUTOFF WALL	9' X 4' BOX CULVERT 706.05	24' HDPE TYPE C 707.33	ODOT CATCH BASIN CB-2-3	ANCHOR ASSEMBLY, TYPE T	GUARDRAIL, TYPE 5, LONG-SPAN	GUARDRAIL, TYPE 5
			LIN. FT.	CU. YD.	SQ. YD.	LIN. FT.	LIN. FT.	EACH	EACH	FT	FT
D-1	15+33.67	RT.			5.56						
P-1	15+10.36-15+33.657	LT.-RT.				50					
P-2	14+35.95-15+29.35	RT.					89				
E-1	15+22.15-15+27.63	LT.		5.92							
E-2	15+37.66-15+43.13	RT.		10.22							
E-3	2+23.62 - 2+39.62	RT.		10.93							
D-2	14+35.95	RT.						1			
R-1	2+23.62 - 2+39.62	RT.	89								
GR-1	14+80.40 - 14+92.91	LT.							1		
GR-1	14+92.91 - 15+30.41	LT.								37.5	
GR-1	15+30.41 - 15+66.74	LT.									37.5
TOTALS			89	27.07	5.56	50	89	1	1	37.5	37.5

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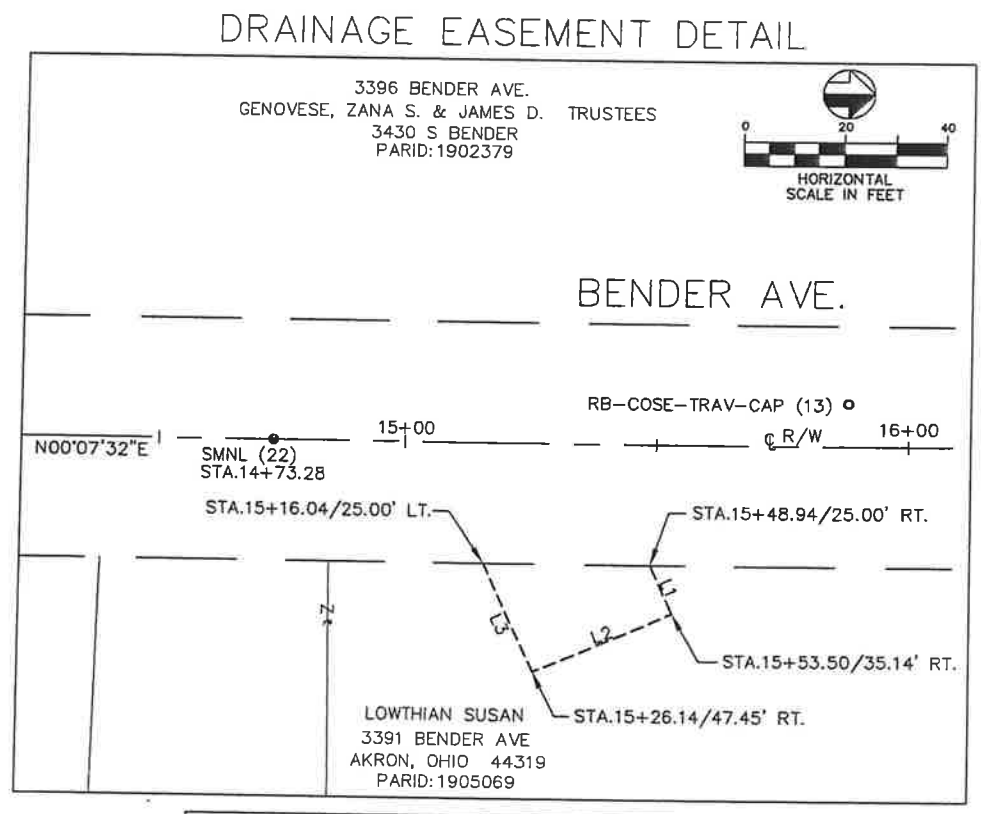
**IRIS AVENUE
RIPRAP CUTOFF WALL**
14' L x 5' W
NOT TO SCALE

THE COST OF THE CUTOFF WALL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 601 RIPRAP USING 6" REINFORCED CONCRETE SLAB.

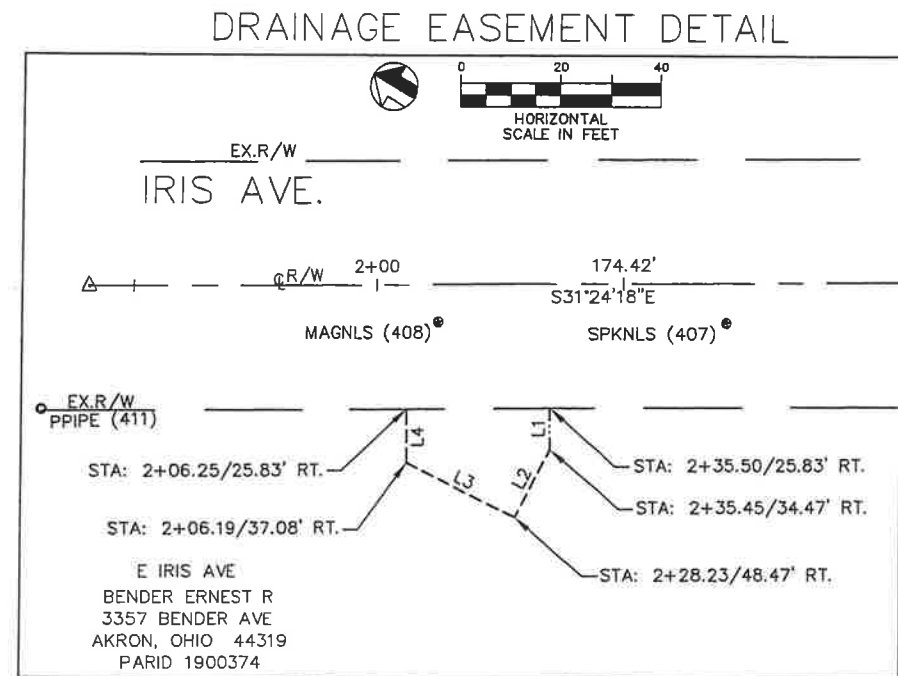


**BENDER AVENUE
RIPRAP CUTOFF WALL**
5' L x 10' W
NOT TO SCALE

THE COST OF THE CUTOFF WALL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 601 RIPRAP USING 6" REINFORCED CONCRETE SLAB.



LINE TABLE		
LINE	LENGTH	BEARING
L1	11.12'	N65°53'52"E
L2	30.00'	S24°06'08"E
L3	24.62'	N65°53'52"E



LINE TABLE		
LINE	LENGTH	BEARING
L1	8.64	N58°54'25"E
L2	15.75	N85°54'49"E
L3	24.80	S04°05'11"E
L4	11.25	N58°54'25"E



CALCULATED
DUS
CHECKED
MM

**DETAILS - RIPRAP CUTOFF WALLS/DRAINAGE EASEMENTS
COTTAGE GROVE SUBDIVISION - PHASE 1**

BENDER AVE.

GENERAL NOTES

DESIGN SPECIFICATIONS: THIS STANDARD DRAWING CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA: THE FOLLOWING DESIGN DATA IS ASSUMED:

- INTERNAL ANGLE OF FRICTION * * = 30 DEGREES
- COEFFICIENT OF FRICTION * * = 0.30
- UNIT WEIGHT OF SOIL = 120 PCF
- UNIT WEIGHT OF CONCRETE = 150 PCF
- SLOPE OF BACKFILL = 2:1 *TYPE A & B HEADWALLS ONLY*
- HEIGHT OF LIVE LOAD SURCHARGE = 2 FT *TYPE C HEADWALLS ONLY*
- MAXIMUM FOUNDATION BEARING PRESSURE = 2000 P.S.F.

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 PSI
FOOTING, WINGWALL AND FORESLOPE WALL

REINFORCING STEEL - ASTM A615, A616, OR A617
GRADE 60 MINIMUM YIELD STRENGTH
60,000 PSI *ALL REINFORCING SHALL BE EPOXY COATED*

PRECAST CONCRETE: AT THE OPTION OF THE CONTRACTOR, PRECAST HEADWALLS MAY BE FURNISHED PER ITEM 602.03 PRECAST STRUCTURES, PROVIDED THEY ARE SIZED TO MEET THE SOIL LOADING AND RESISTANCE PARAMETERS, AND MEET OR EXCEED THE MATERIAL STRENGTHS AND WALL LIMITS AS SHOWN AND SPECIFIED. FULL COMPENSATION FOR THE PRECAST SUBSTITUTION IS THE VOLUME OF CONCRETE AND THE WEIGHT OF THE REINFORCING STEEL FOR THE CORRESPONDING CAST-IN-PLACE STRUCTURE.

FORESLOPE WALL ANCHOR DOWELS: ANCHOR PER CMS 510 WITH NONSHRINK, NONMETALLIC GROUT CONFORMING TO CMS 705.20 AND TO A DEPTH OF 5". PAYMENT FOR DOWEL HOLES, GROUT AND INSTALLATION SHALL BE INCLUDED WITH ITEM 511.

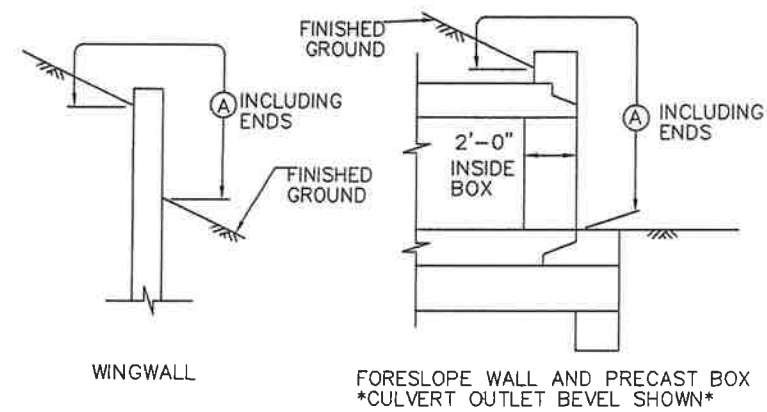
AS AN ALTERNATIVE TO RESIN BONDING, THREADED INSERTS OR NONPROTRUDING MECHANICAL CONNECTORS CAST INTO THE CULVERT BY THE MANUFACTURER MAY BE USED PROVIDED THEY CAN RESIST AN ULTIMATE PULL-OUT STRENGTH OF 12 KIPS AND MAINTAIN A MINIMUM COVER OF 3 INCHES AT THE BOTTOM OF THE CULVERT SLAB. MECHANICAL CONNECTORS MUST PROVIDE AN "L-SHAPED" BAR INSIDE THE CULVERT WITH A MINIMUM HORIZONTAL LENGTH OF 12 INCHES. PAYMENT FOR INSERTS OR MECHANICAL CONNECTORS SHALL BE INCLUDED WITH ITEM 603.

POROUS BACKFILL WITH FILTER FABRIC 1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND TO 12" BELOW THE EMBANKMENT SURFACE. POROUS BACKFILL SHALL BE #57 LIMESTONE OR APPROVED EQUAL. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.

WEEPHOLES SHALL BE PLACED 6" TO 12" ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10'-0". A MINIMUM OF ONE WEEPHOLE SHALL BE PROVIDED PER WINGWALL.

PREFORMED EXPANSION JOINT FILLER: PREFORMED EXPANSION JOINT FILLER *PEJF* CONFORMING TO CMS 705.03, 1 INCH THICK, SHALL BE PLACED ABOVE THE FOOTING BETWEEN THE SIDES OF THE BOX CULVERT AND THE ENDS OF THE WINGWALLS. PAYMENT FOR MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER.

SEALING OF FORESLOPE WALL AND WINGWALLS: ALL EXPOSED FORESLOPE WALL AND WINGWALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE EPOXY-URETHANE SEALER SHALL BE PER ITEM 512 - SEALING OF CONCRETE SURFACES.

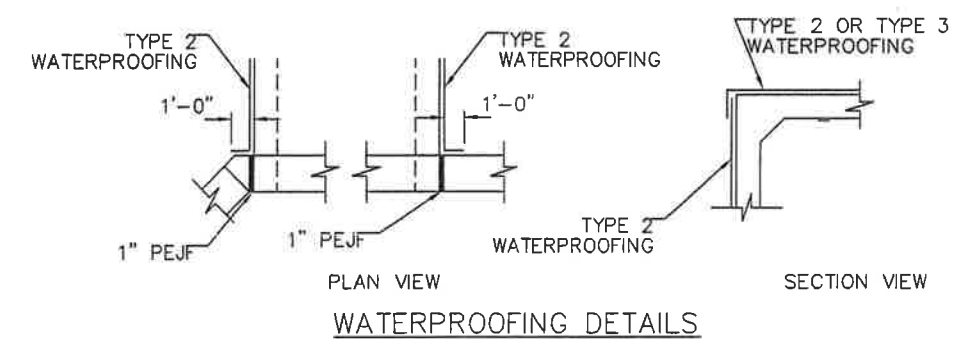


LIMITS OF ITEM 512-SEALING CONCRETE SURFACES
(A) - SEAL ENTIRE CONCRETE SURFACE AREA

WATERPROOFING: TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25, SHALL EXTEND VERTICALLY DOWN THE ENTIRE SIDES OF THE PRECAST CULVERT SECTIONS FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

IF PAVEMENT IS NOT PLACED DIRECTLY ON TOP OF THE CULVERT, TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

IF PAVEMENT IS TO BE USED DIRECTLY ON TOP OF THE CULVERT, TYPE 3 WATERPROOFING, PER CMS 512.10 AND 711.29 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 3 WATERPROOFING.



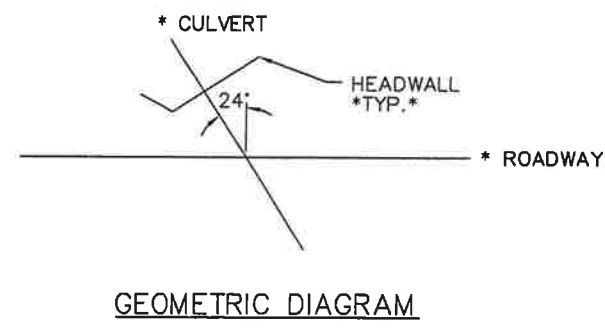
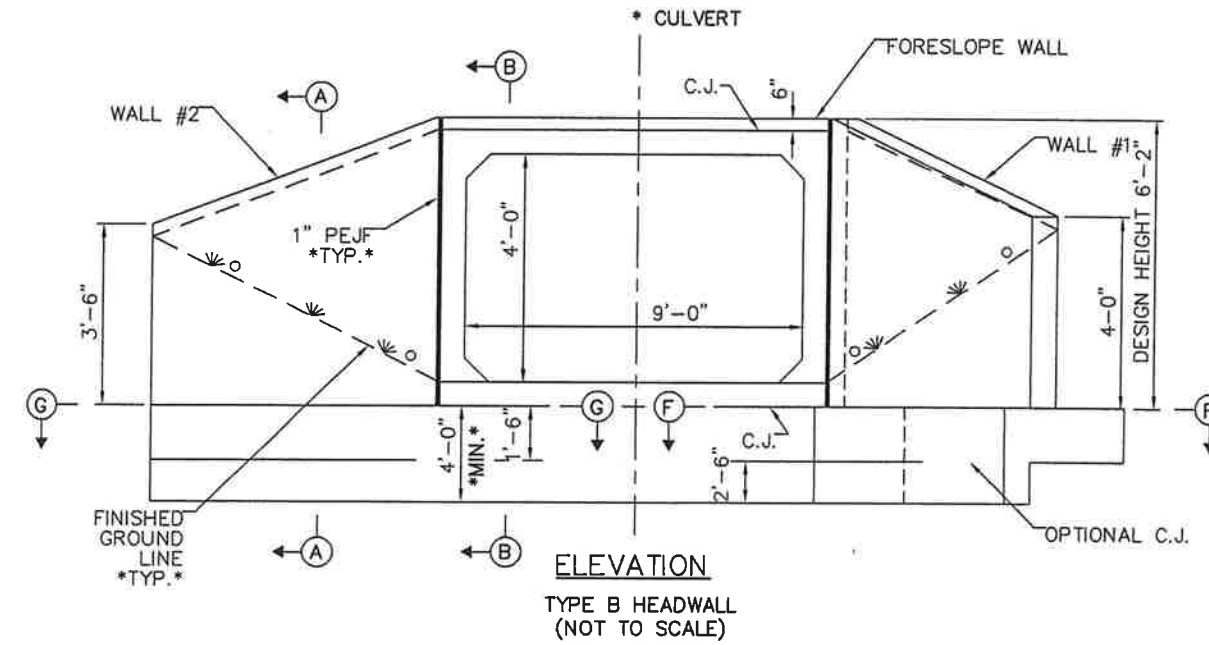
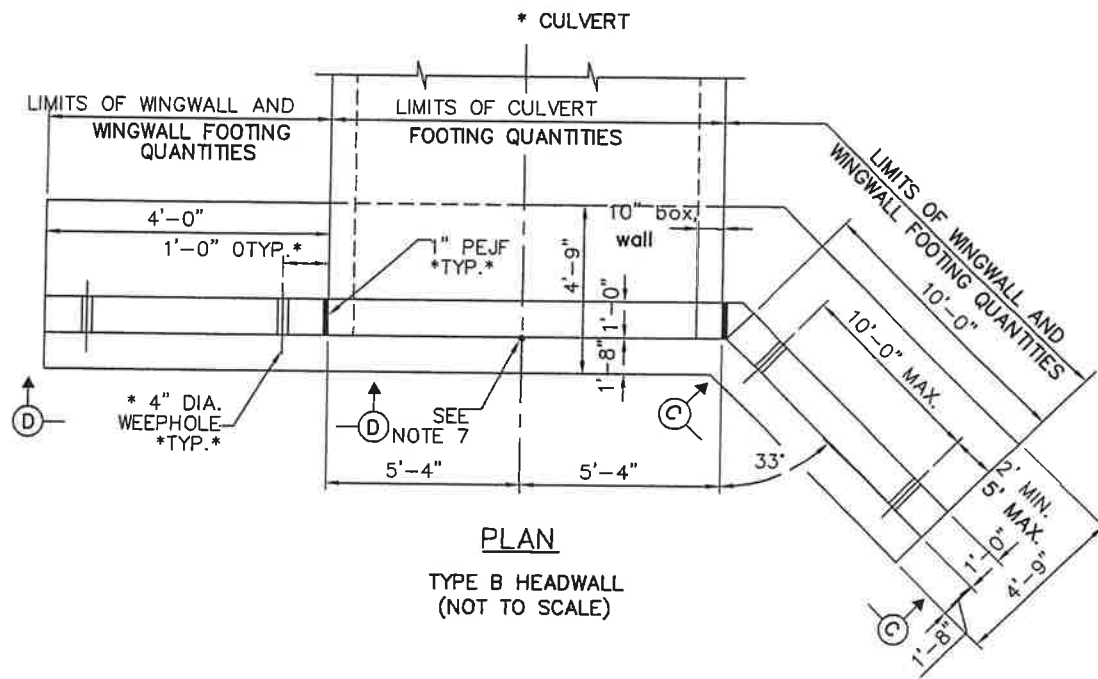
BASIS OF PAYMENT: ALL LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTING, CUTOFF WALL, WINGWALLS AND FORESLOPE WALL SHALL BE INCLUDED WITH ITEM 511 - CLASS C CONCRETE *RET-WALL* WINGWALL- INCLUDING FOOTING*. PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

ESTIMATED HEADWALL QUANTITIES			
ITEM	TOTAL	UNIT	DESCRIPTION
503	LUMP		UNCLASSIFIED EXCAVATION *WINGWALL FOOTING*
509	1192	LB.	EPOXY COATED REINFORCING STEEL
511	2.83	CU. YD.	CLASS C CONCRETE, RETAINING WALL OR WINGWALL
511	10.71	CU. YD.	CLASS C CONCRETE, FOOTING
511	0.21	CU. YD.	CLASS C CONCRETE, HEADWALLS
512	70.6	SQ. YD.	TYPE 2 MEMBRANE WATERPROOFING
512	77.4	SQ. YD.	TYPE 3 MEMBRANE WATERPROOFING
516	12.3	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER
518	LUMP		POROUS BACKFILL WITH FILTER FABRIC
512	7.5	SQ. YD.	SEALING OF CONCRETE SURFACES *EPOXY-URETHANE*

NOTE: TOTALS CARRIED TO GENERAL SUMMARY SHEET

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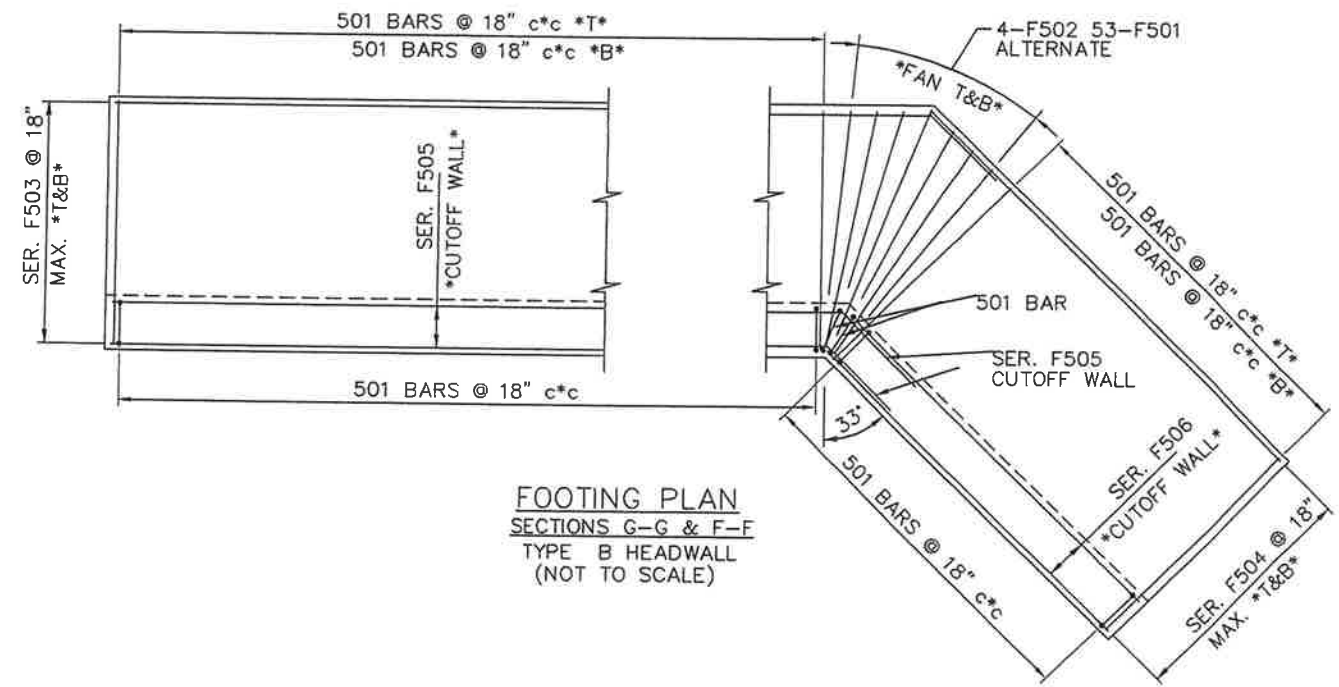
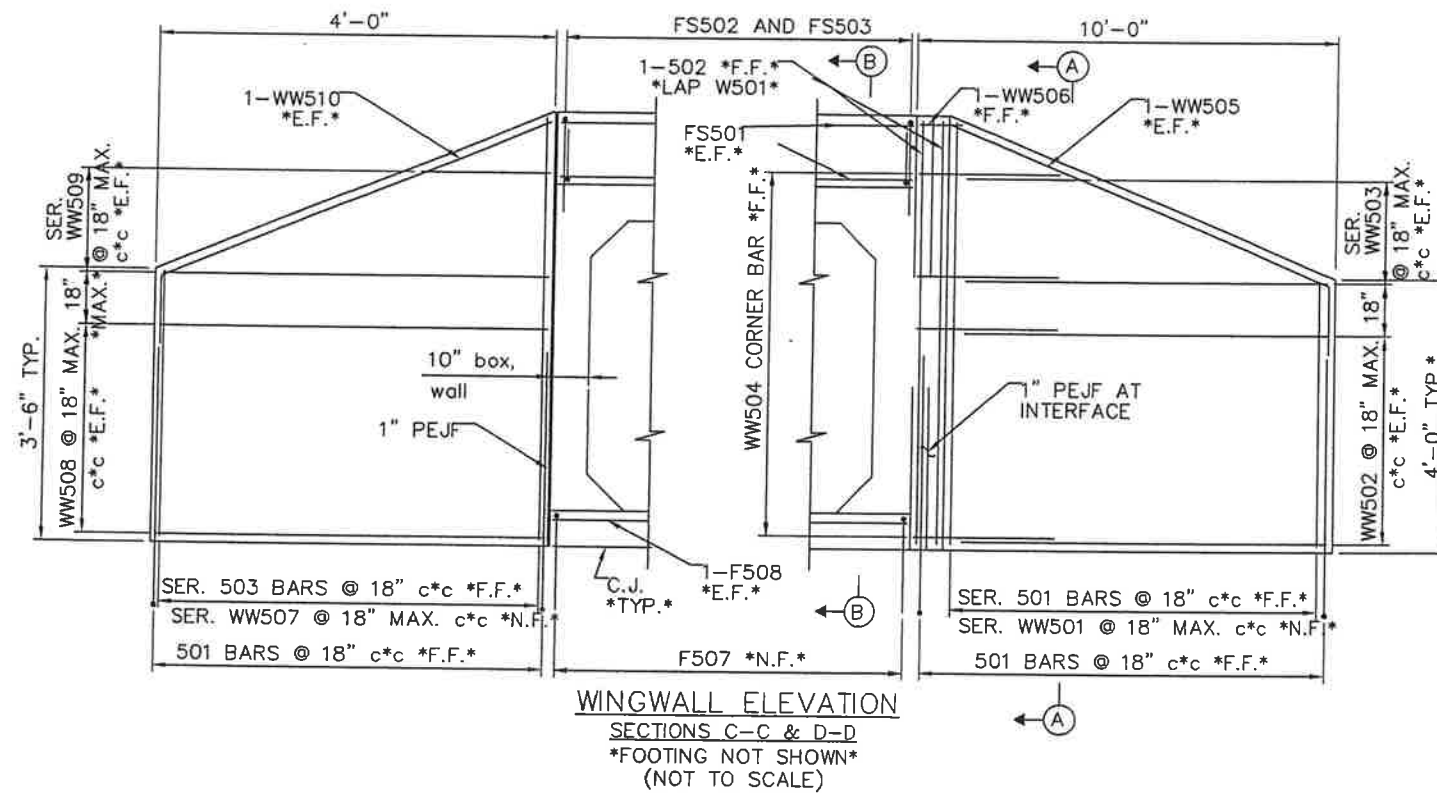
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NOTES

1. FOR SECTIONS A-A, B-B, SEE SHEET 9/10.
2. FOR FOOTING DESIGNS, SEE SHEET 9/10.
3. FOR FORESLOPE WALL REINFORCING, SEE SHEET 9/10.
4. FOR HEADWALL REINFORCING SCHEDULE, SEE SHEET 10/10.
5. POROUS BACKFILL NOT SHOWN FOR CLARITY.
6. THESE WALLS ARE DESIGNED FOR 2/3 OF THE WALL PANEL HEIGHT AND SHOULD BE USED ONLY FOR WALL CONFIGURATIONS SHOWN IN THESE STANDARDS.
7. THE STATION AND OFFSET WITH RESPECT TO THE CENTERLINE OF SURVEY SHALL BE SHOWN ON THE PLANS.

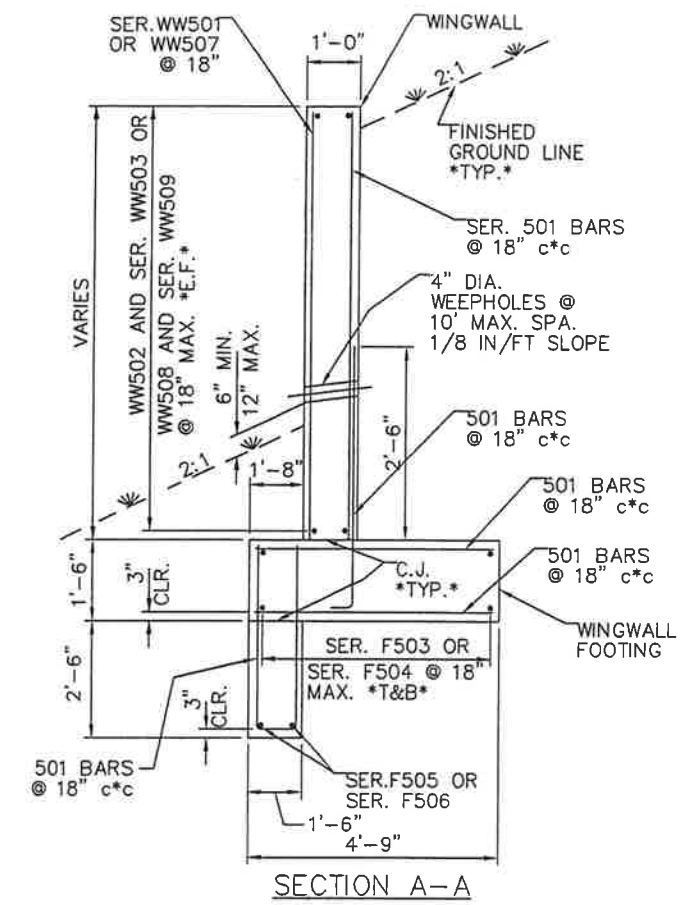
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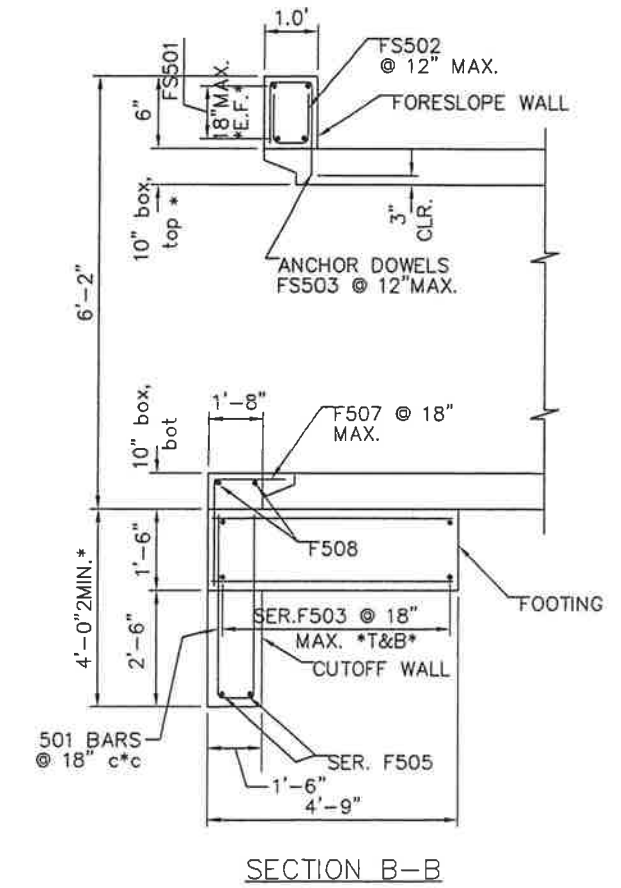
LEGEND:

C.J.	CONSTRUCTION JOINT	N.F.	NEAR FACE
CLR.	CLEAR	SER.	SERIES
DIA.	DIAMETER	STR.	STRAIGHT
E.F.	EACH FACE	*T*	TOP
F.F.	FAR FACE	*B*	BOTTOM
MAX.	MAXIMUM	T&B	TOP AND BOTTOM
MIN.	MINIMUM	TYP.	TYPICAL
PEJF	PREFORMED EXPANSION JOINT FILLER	INC.	INCREMENT

- NOTES**
- FOR CULVERT LOCATION PLAN, SEE SHEET 5/10.
 - THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, WW501 IS A NO.5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
 - THE LAP SPLICE LENGTHS USED IN THESE DETAILS ARE



POROUS BACKFILL NOT SHOWN FOR CLARITY
(NOT TO SCALE)



CULVERT INLET BEVEL SHOWN
(NOT TO SCALE)

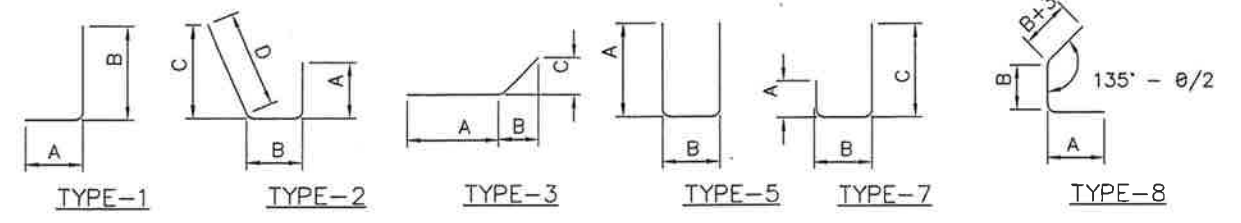
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BOX CULVERT HEADWALL DETAILS

BENDER AVE.

TYPE B HEADWALL REINFORCING SCHEDULE

BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS				INC.
					A	B	C	D	
WINGWALLS									
X501	1	3'- 10"							
	SERIES TO		42	STR.					0'- 3 3/4"
	of 8	6'- 0"							
X502	2	6'- 0"	13	STR.					
X503	1	3'- 4"							
	SERIES TO		20	STR.					0'- 10 3/4"
	of 4	6'- 0"							
Y501	14	4'- 1"	60	1	0'- 6"	3'- 8"			
WW501	1	3'- 10"							
	SERIES TO		42	STR.					0'- 3 3/4"
	of 8	6'- 0"							
WW502	6	9'- 8"	61	STR.					
WW503	2	4'- 10"							
	SERIES TO		31	STR.					4'- 10 "
	of 2	9'- 8"							
WW504	5	3'- 9"	20	2	0'- 7"	0'- 3 3/4"	2'- 6 "	2'- 11 3/4"	
WW505	2	12'- 4"	26	3	2'- 5"	2'- 0"	9'- 8"		
WW506	1	1'- 4"	2	8	0'- 7"	0'- 3 3/4"			
WW507	1	3'- 4"							
	SERIES TO		20	STR.					0'- 10 3/4"
	of 4	6'- 0"							
WW508	6	3'- 8"	23	STR.					
WW509	2	1'- 10"							
	SERIES TO		12	STR.					1'- 10 "
	of 2	3'- 8"							
WW510	2	6'- 10"	15	3	2'- 5"	2'- 6"	3'- 8"		
FOOTING & CUTOFF WALL									
V501	18	4'- 5"	83	STR.					
W501	18	4'- 5"	83	STR.					
Z501	20	8'- 2"	171	5	3'- 7"	1'- 2"			
F501	6	4'- 0"	26	STR.					
F502	8	3'- 2"	27	STR.					
	2	16'- 2"			13'- 8 1/4"				
F503	2	9'- 0"							
	SERIES TO		145	3	TO	1'- 4 "	2'- 1/2"		0'- 9 3/4"
	of 4	18'- 7"			16'- 1 1/4"				
F504	2	11'- 5"							
	SERIES TO		86	STR.					0'- 9 3/4"
	of 4	11'- 5"							
F505	1	16'- 2"			13'- 8 1/4"				
	SERIES TO		35	3	TO	1'- 4 "	2'- 1/2"		0'- 7 "
	2	16'- 9"			14'- 4 "				
	1	9'- 0"							
F506	2	9'- 7"							
	SERIES TO		20	STR.					0'- 7 1/8"
F507	8	3'- 7"	30	1	1'- 8"	2'- 0"			
F508	2	10'- 4"	22	STR.					
FORESLOPE WALL									
FS501	4	10'- 4"	44	STR.					
FS502	12	0'- 11"	12	5	0'- 3"	0'- 8"			
FS503	12	1'- 8"	21	7	0'- 3"	0'- 8"	1'- 0"		
	TOTAL		1,192						



CALCULATED BY: BAK
 CHECKED BY: BAK
BOX CULVERT HEADWALL REINFORCING SCHEDULE
BENDER AVE.
 10
 10

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