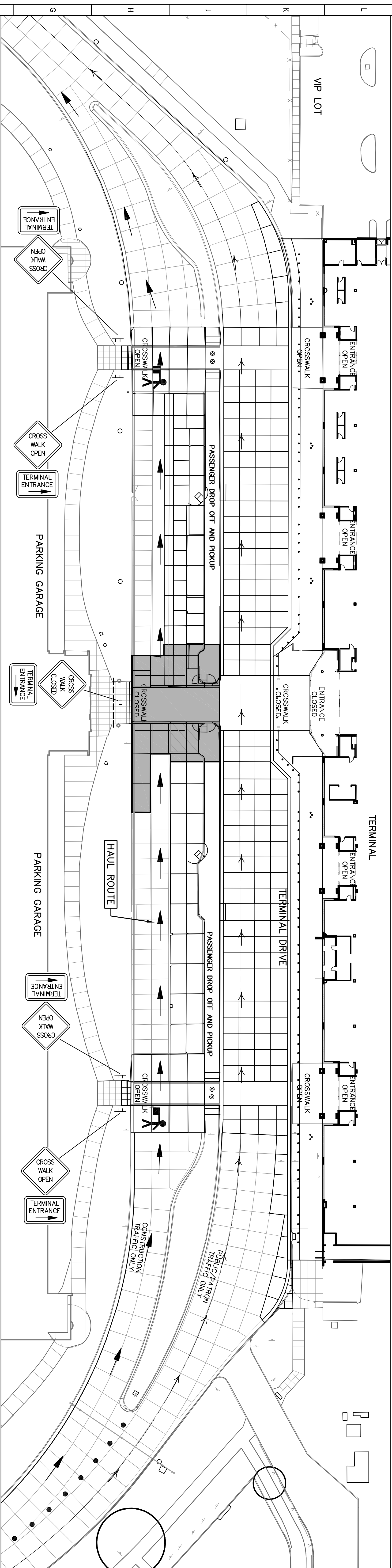
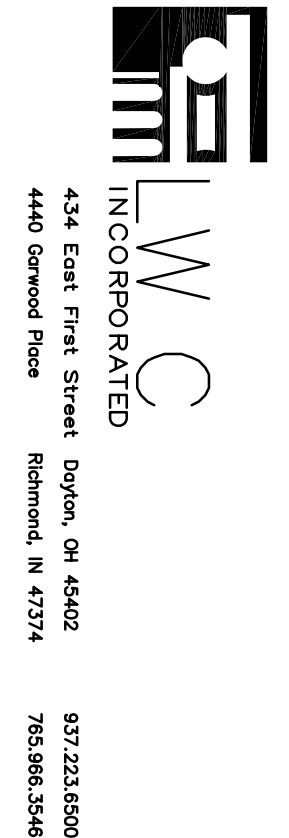


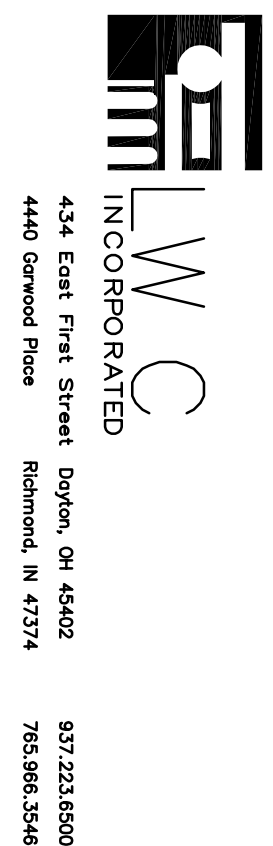
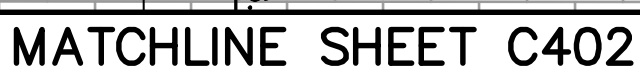


CANOPY RENOVATION
3600 TERMINAL DRIVE #300
VANDALIA, OH 45377

DEMOLITION PLAN

Crash No.	Date
13602.00	2014.3.31
Drawn	Drawing No.
ENB	C301
Checked	
jWB	



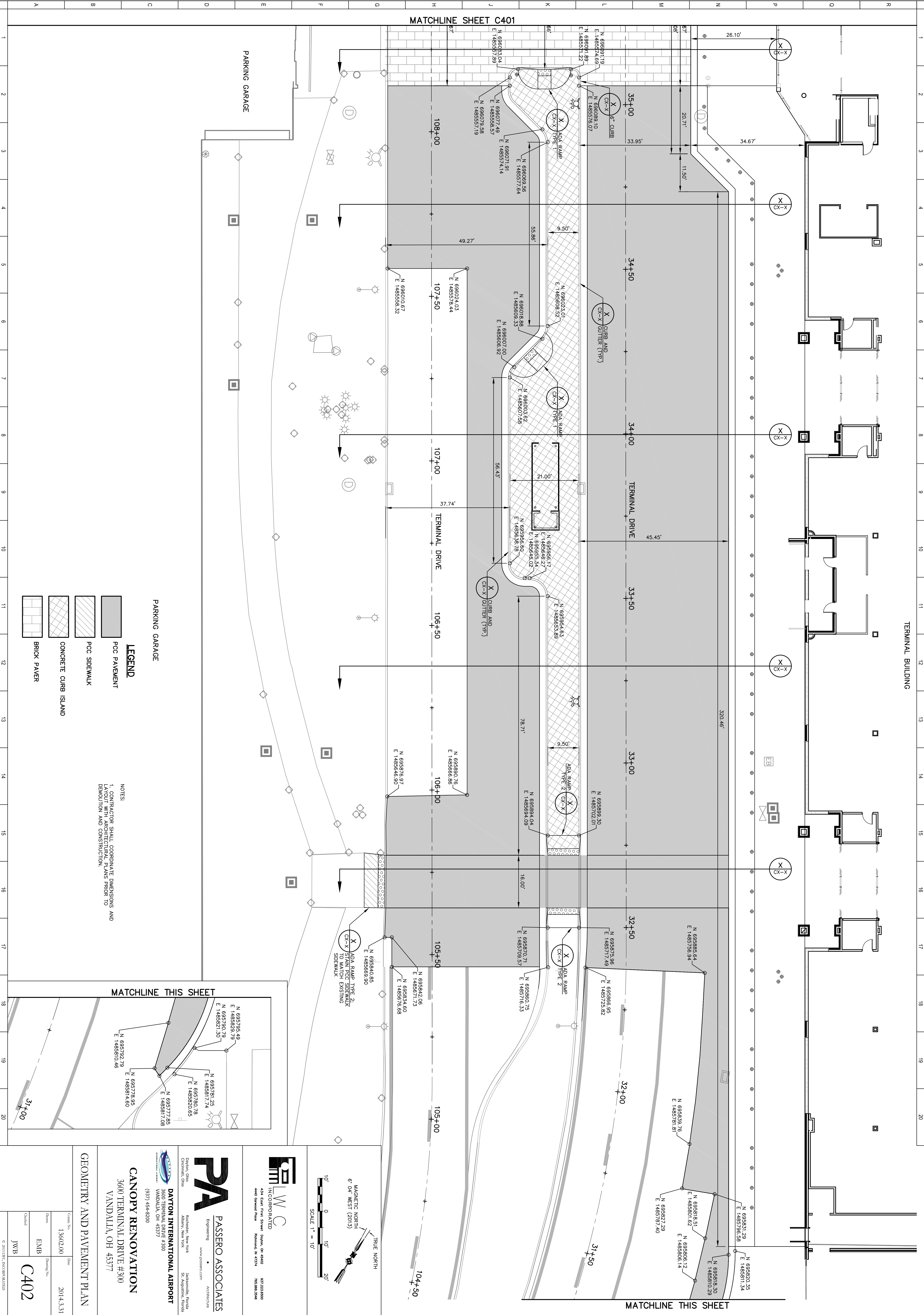


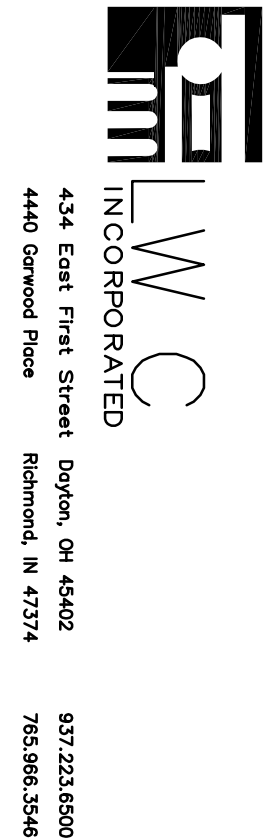
 **DAYTON INTERNATIONAL AIRPORT**
3600 TERMINAL DRIVE #300
VANDALLA, OH 45377

GEOMETRY AND PAVEMENT PLAN

Comm. No.	Date
13602.00	2014.3.31
Items	Drawing No.
EMB	C401
Checked	
jWB	

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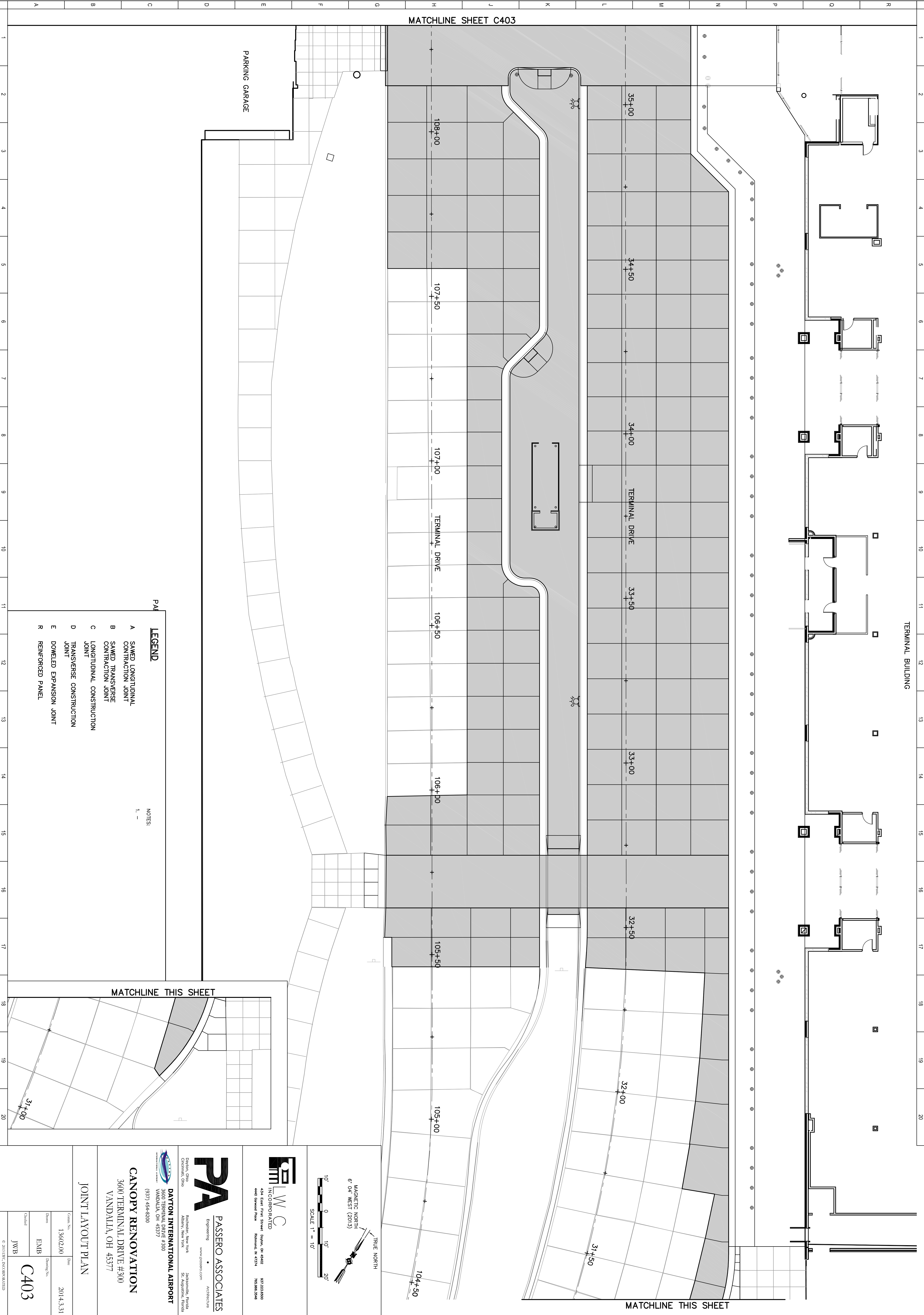


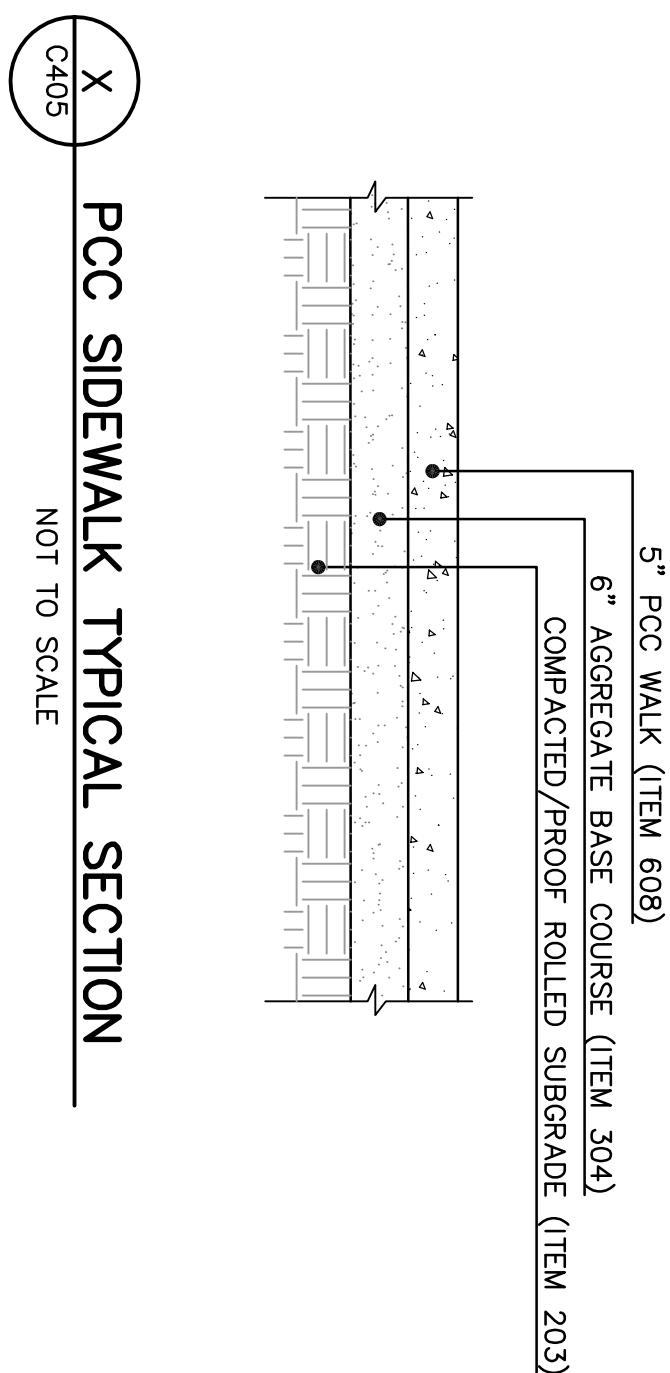


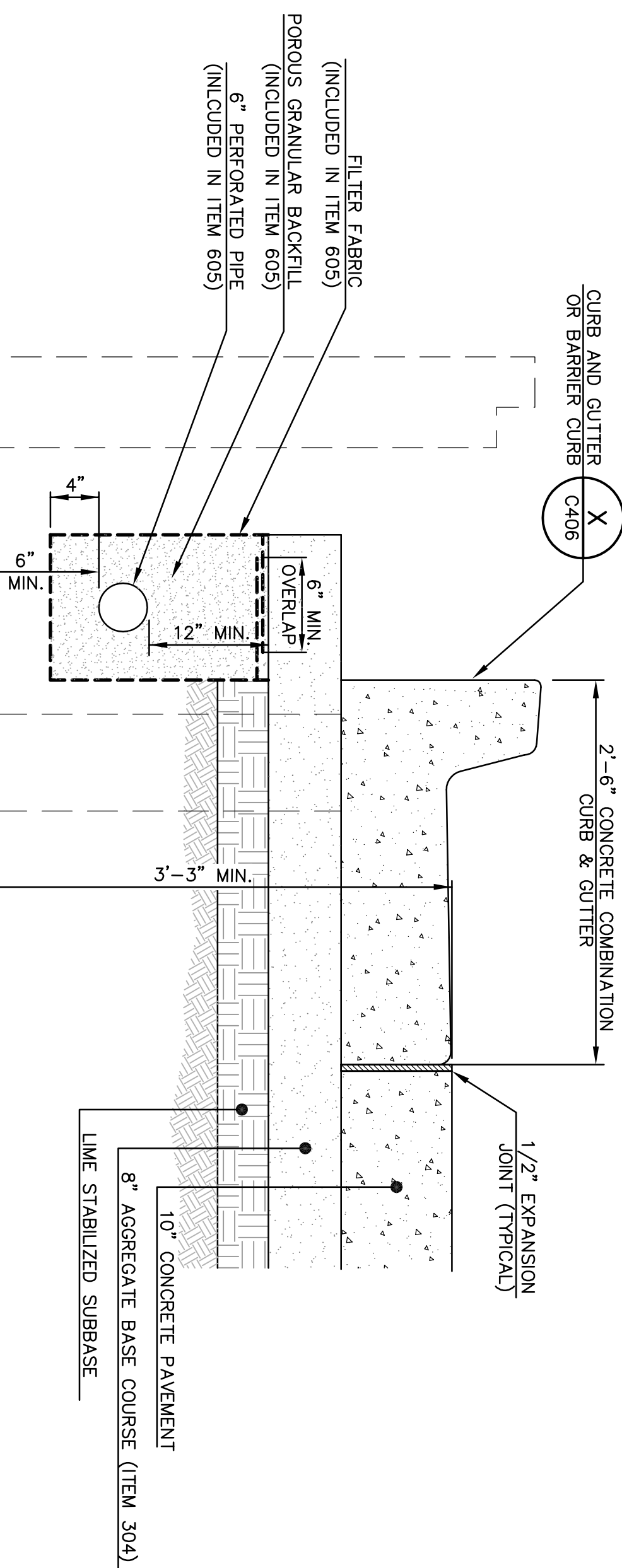
DAYTON INTERNATIONAL AIRPORT
3600 TERMINAL DRIVE #300
VANDALLIA, OH 45377

JOINT LAYOUT PLAN

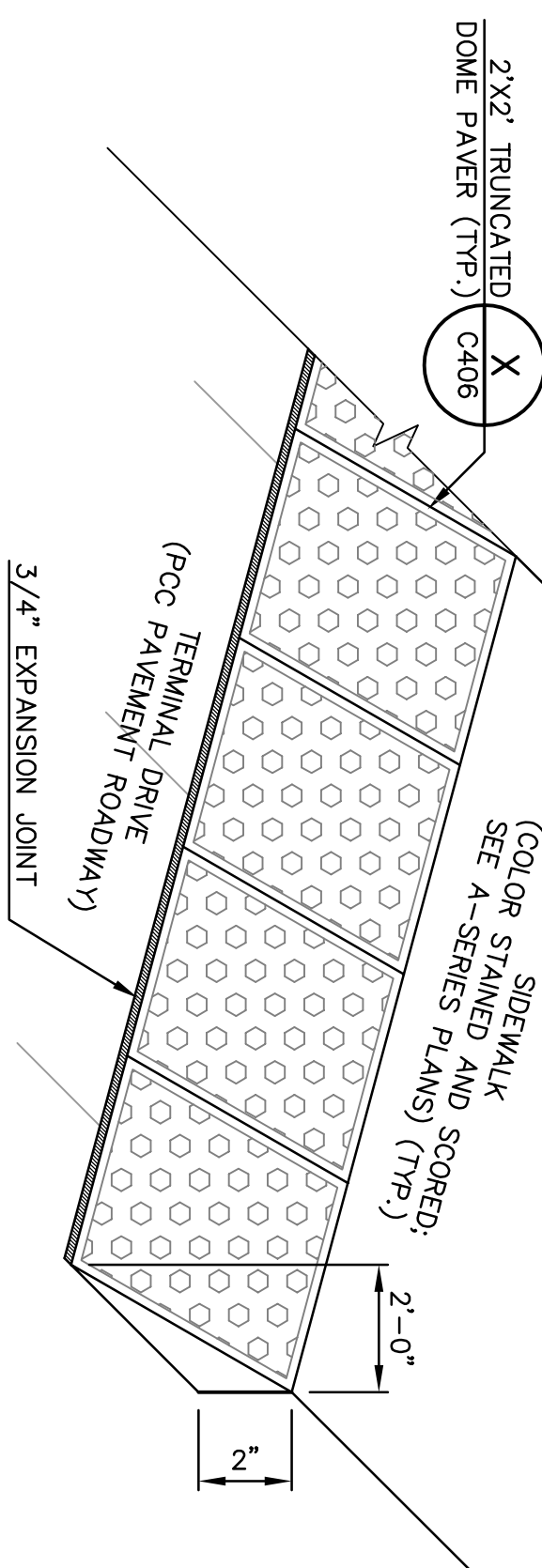
Column No.	Date
13602.00	2014.3.31
Drawn	Drawing No.
ENB	C403
Checked	
JWB	



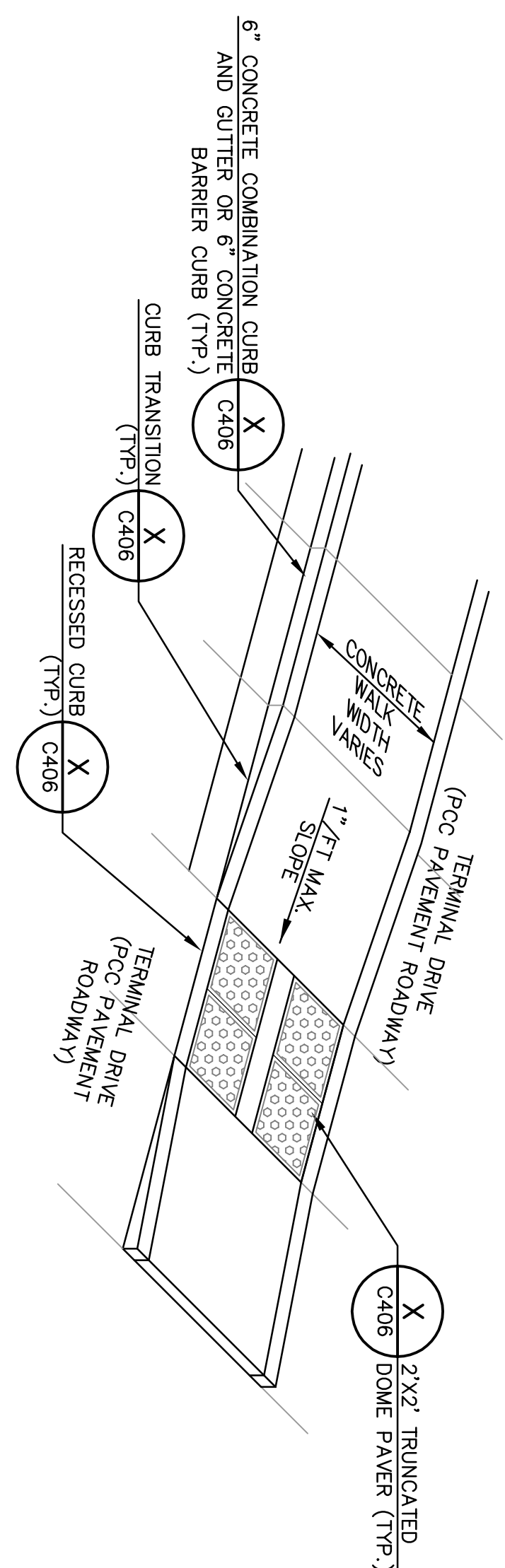
PRELIMINARY



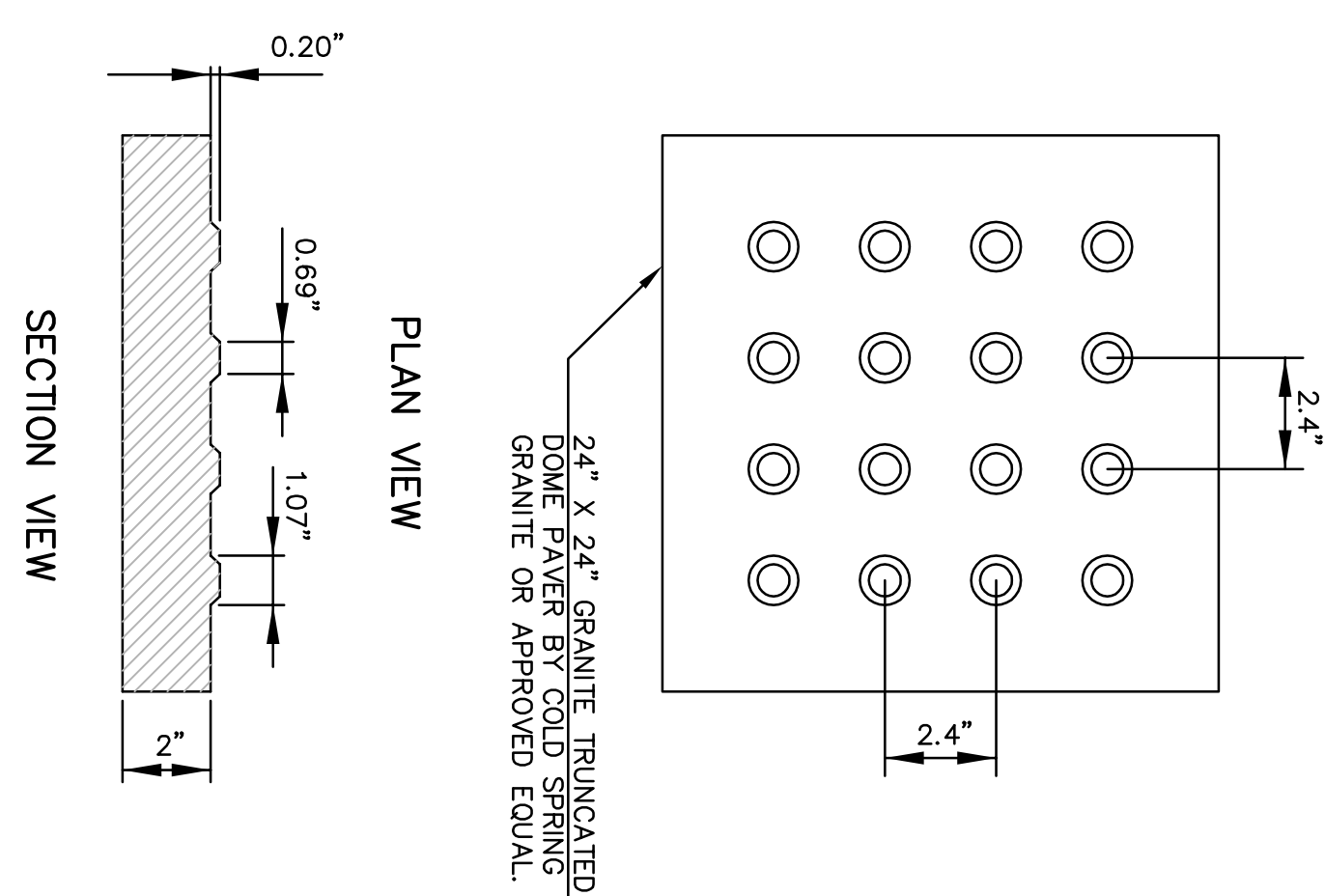
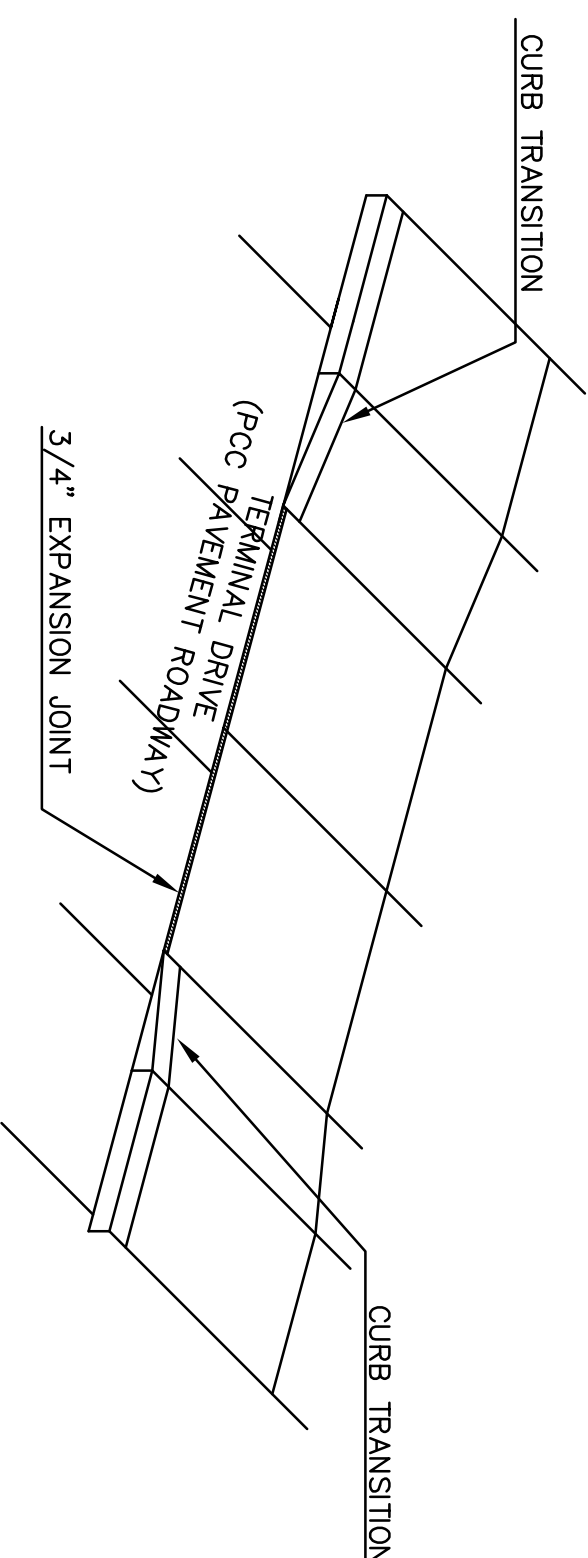
1. NO SEPARATE MEASUREMENT/PAYMENT WILL BE MADE FOR CONCRETE ISLANDS.
2. ITEMS SHOWN, SUCH AS CURB AND GUTTER, BARRIER CURB, 5' CONCRETE WALKWAY, STABILIZED SUBGRADE, ETC., SHALL BE MEASURED/PAYD FOR AT THE CONTRACT UNIT PRICE FOR EACH ITEM.
3. THE ADDITIONAL AGGREGATE BASE FOR THE AGGREGATE BASE AT ISLANDS WILL BE MEASURED AND PAID FOR AT THE CONTRACT PRICE FOR AGGREGATE BASE.



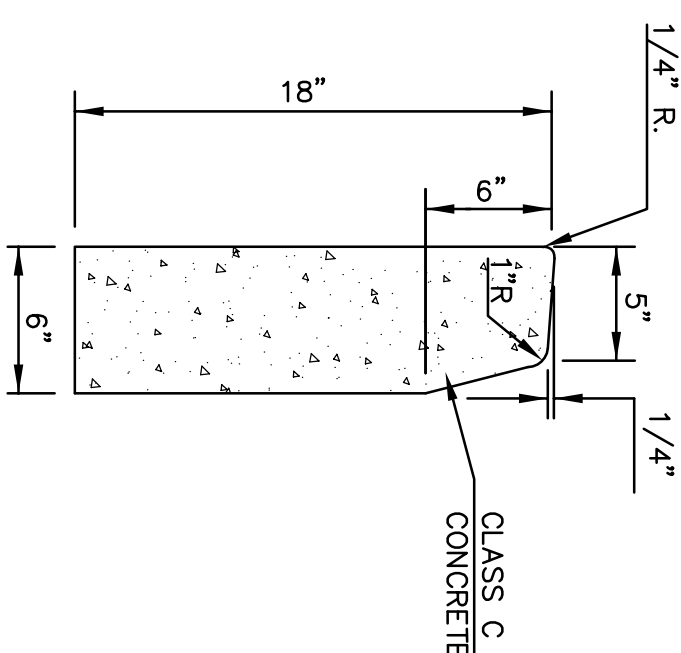
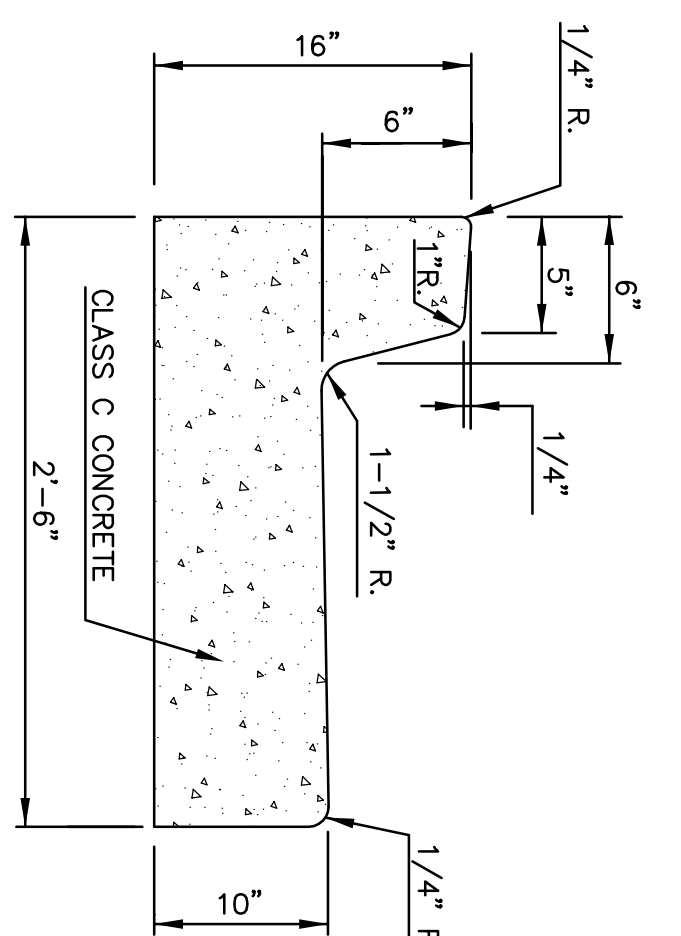
SIDEWALK/CURB TRANSITION
NOT TO SCALE



CURB TRANSITIONS AT TERMINAL ENTRANCES
NOT TO SCALE



TRUNCATED DOME PAVER
NOT TO SCALE



6" CONCRETE COMBINATION CURB & GUTTER

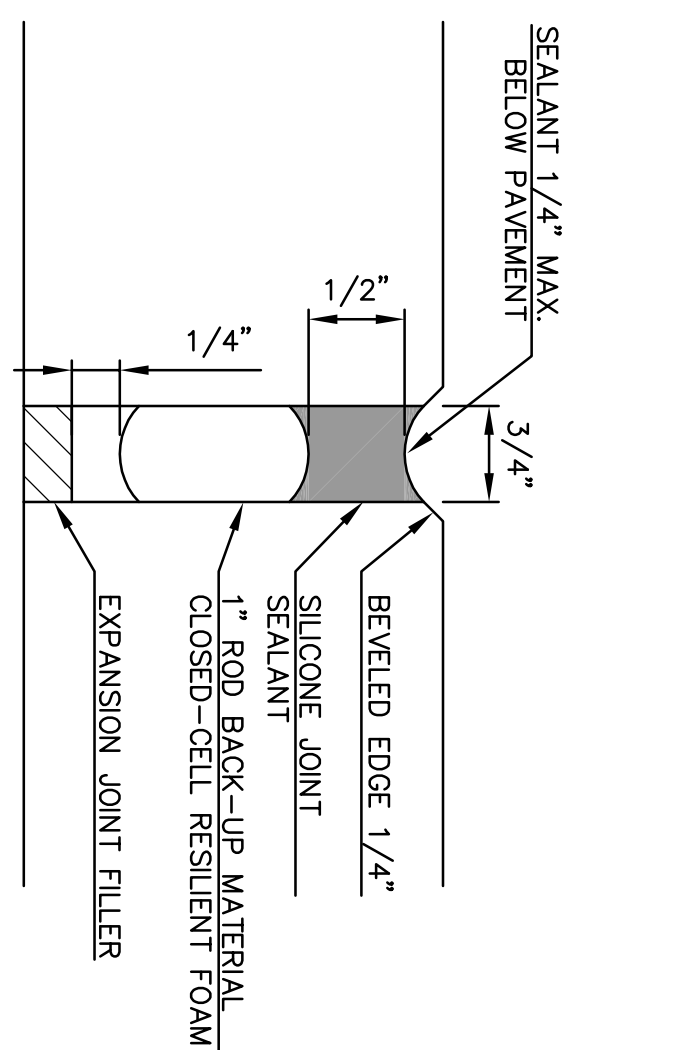
NOTE: PROVIDE CONTROL JOINTS @ 10' O.C. MAX.

6" CONCRETE BARRIER CURB
NOT TO SCALE

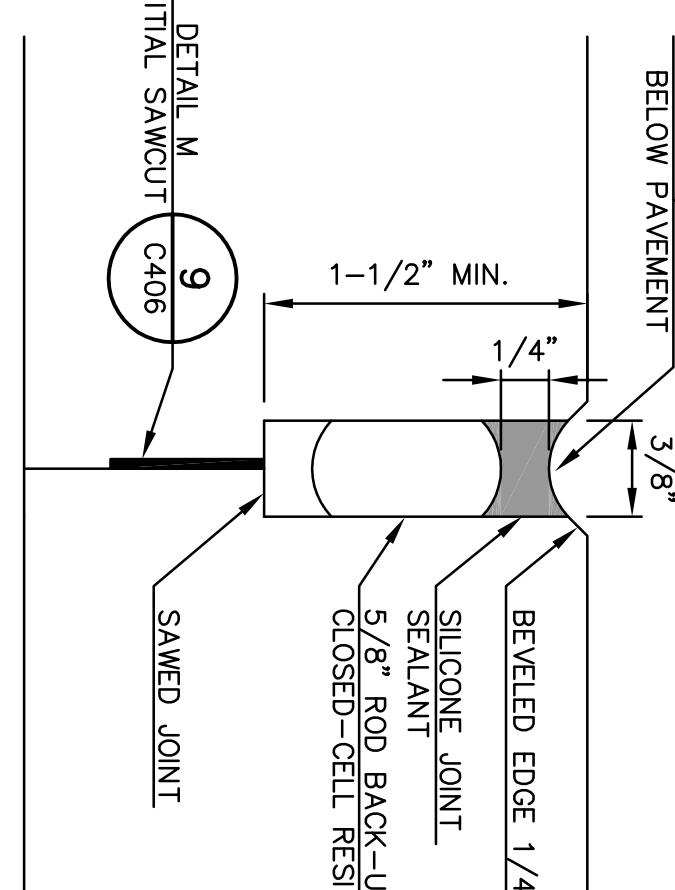
NOTE: PROVIDE CONTROL JOINTS @ 10' O.C. MAX.

GUTTER SLOPE TABLE		
GUTTER SLOPE	ROADWAY SLOPE	CROSS SECTION
-4.00%	-2.00%	
-2.00%	-1.00%	
0.00%	0.00%	
+2.00%	+1.00%	
+2.00%	+2.00%	

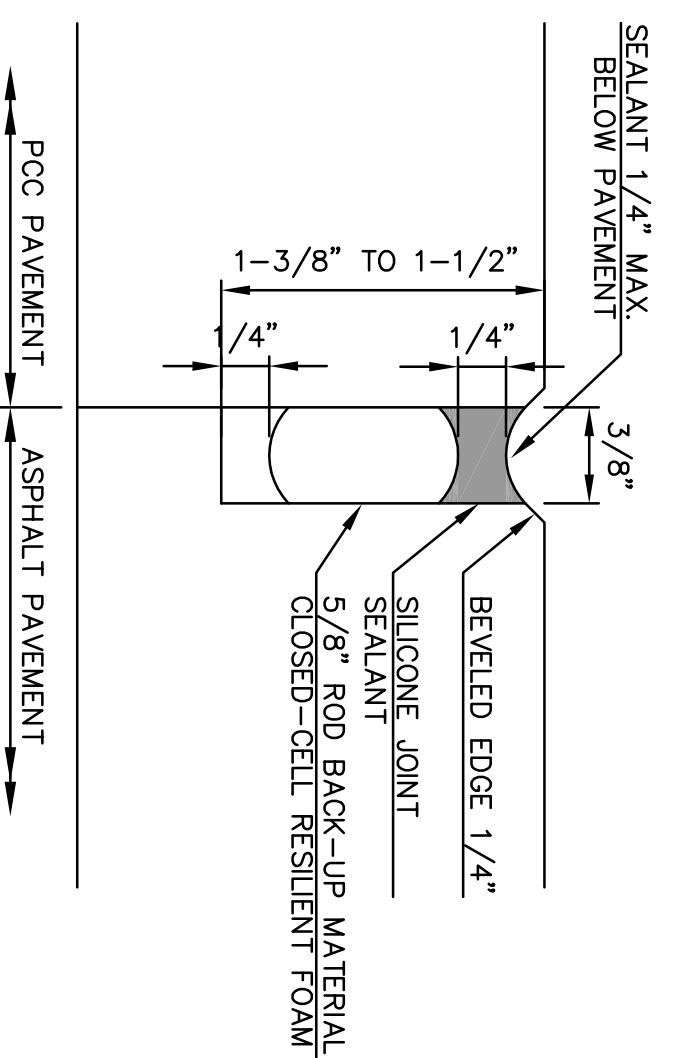
GUTTER SLOPE TABLE
NOT TO SCALE



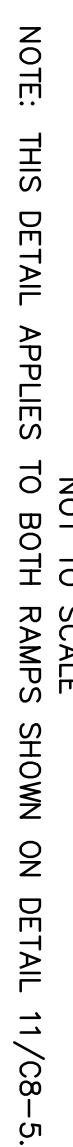
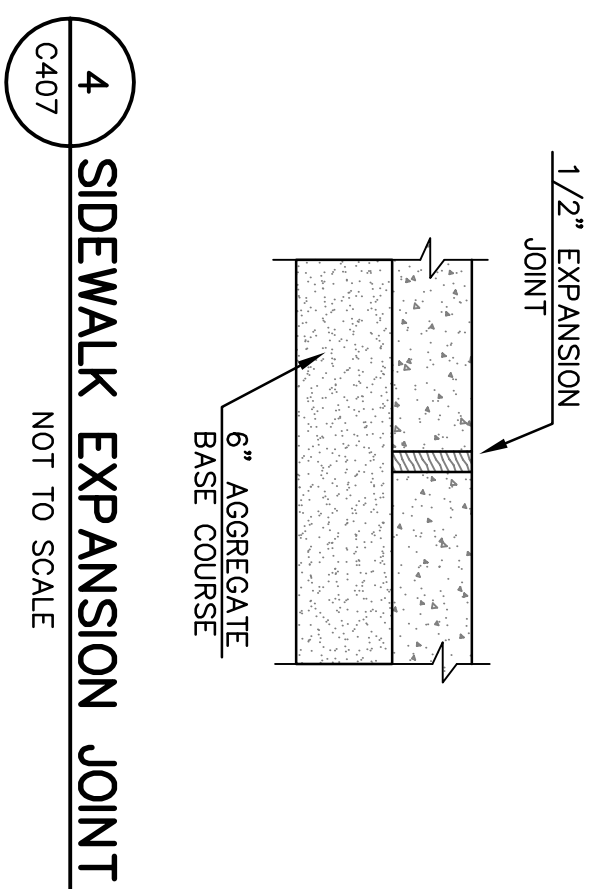
EXPANSION JOINT SEAL
NOT TO SCALE



CONSTRUCTION JOINT SEAL
NOT TO SCALE



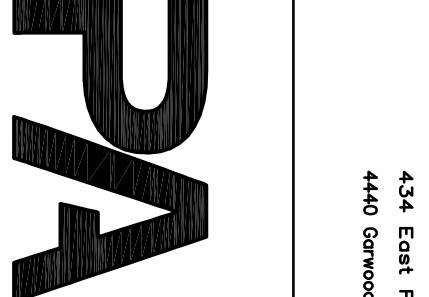
DETAIL 2
BITUMINOUS CONCRETE JOINT SEAL
NOT TO SCALE
C406

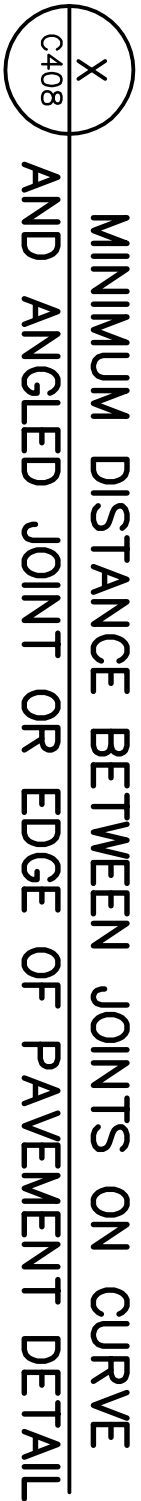


1. THE DETECTABLE WARNING STRIP DOES NOT HAVE A SEPARATE PAY ITEM. IT IS INCIDENTAL TO ITEM 608.2 - CURB RAMP.
2. FLARED SIDE SLOPE SHALL NOT EXCEED 1:10. IF X IS LESS THAN 48 IN, THEN THE SLOPE OF THE FLARED SIDE SHALL NOT EXCEED 1:12.

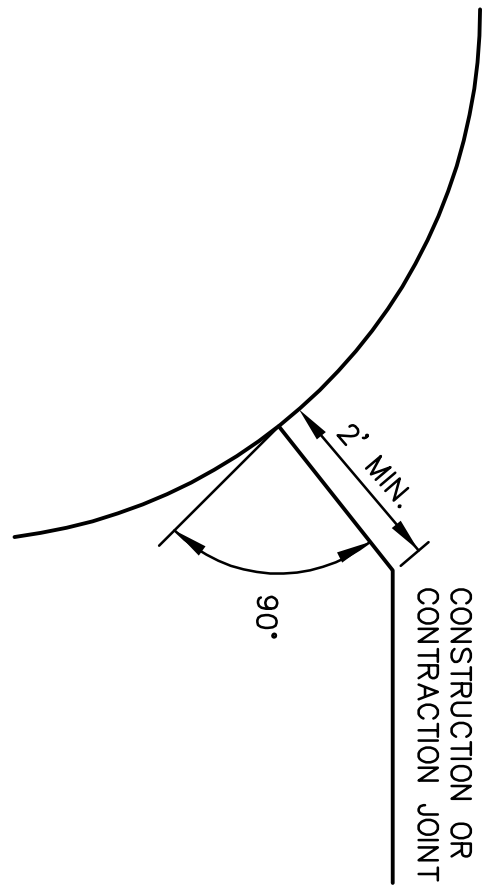


1. CROSSWALK YIELD LINE MARKINGS MAY BE 12" WIDE X 18" LONG (6 MARKINGS PER 12' LANE), OR 24" WIDE X 36" LONG (4 MARKINGS PER 12' LANE).

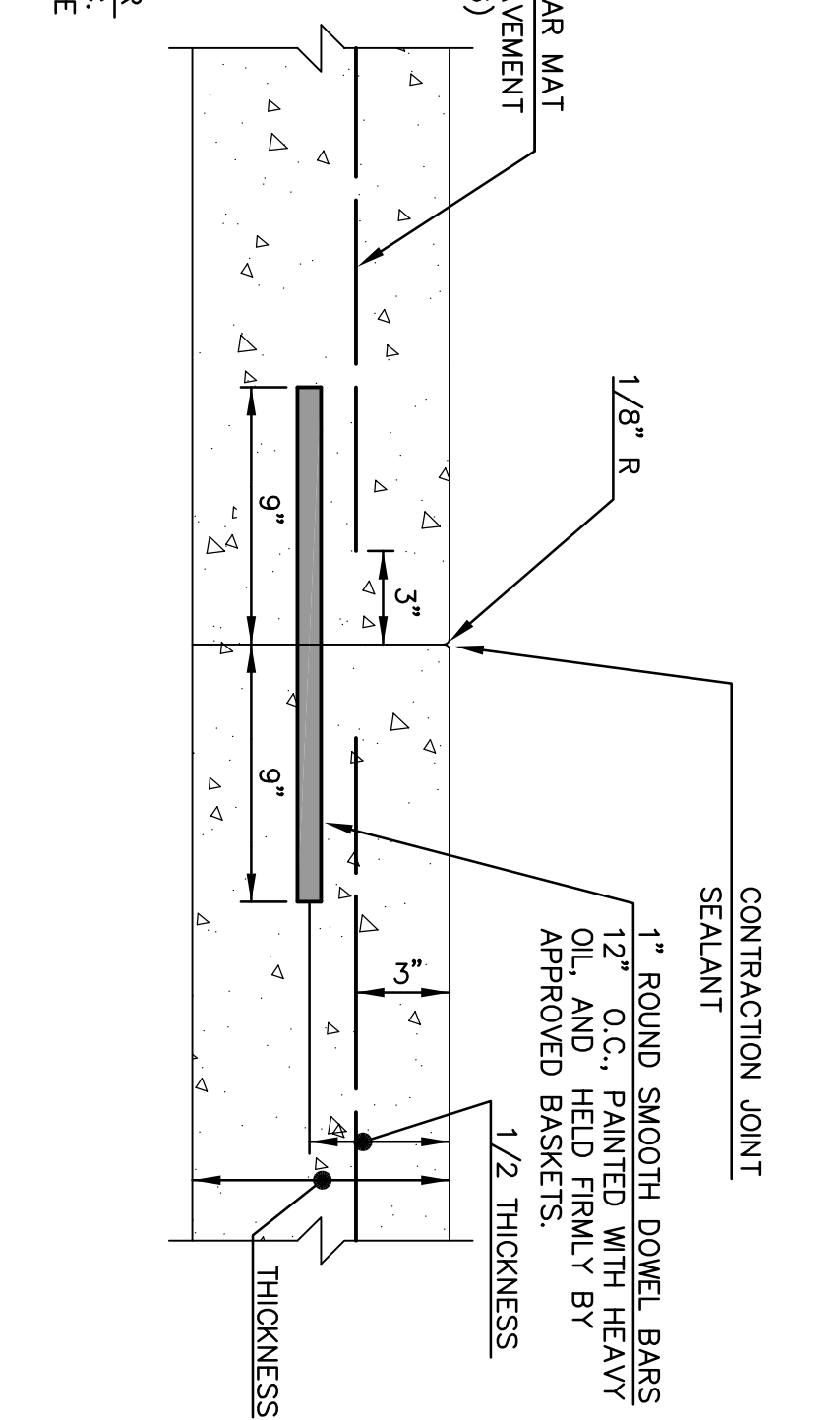
	LWC INCORPORATED	1000 West Street 4440 Grand Ridge Dayton, Ohio 45424	Dayton, Ohio Cincinnati, Ohio	Dayton, Ohio Albany, New York Jacksonville, Florida St. Augustine, Florida	937.233.4200 706.666.3546
			Engineering • Architecture www.pfaassociates.com PASSERO ASSOCIATES		
			DAYTON INTERNATIONAL AIRPORT 3600 TERMINAL DRIVE #200 VANDALLA, OH 45377 (937) 454-9200		
CANOPY RENOVATION 3600 TERMINAL DRIVE #200 VANDALLA, OH 45377			Typical Sections and Pavement Details		
(Client No.) 13402.00	Date ENAB (Issued) JWB	(Date) Drawing No. C407	2014.03.31		



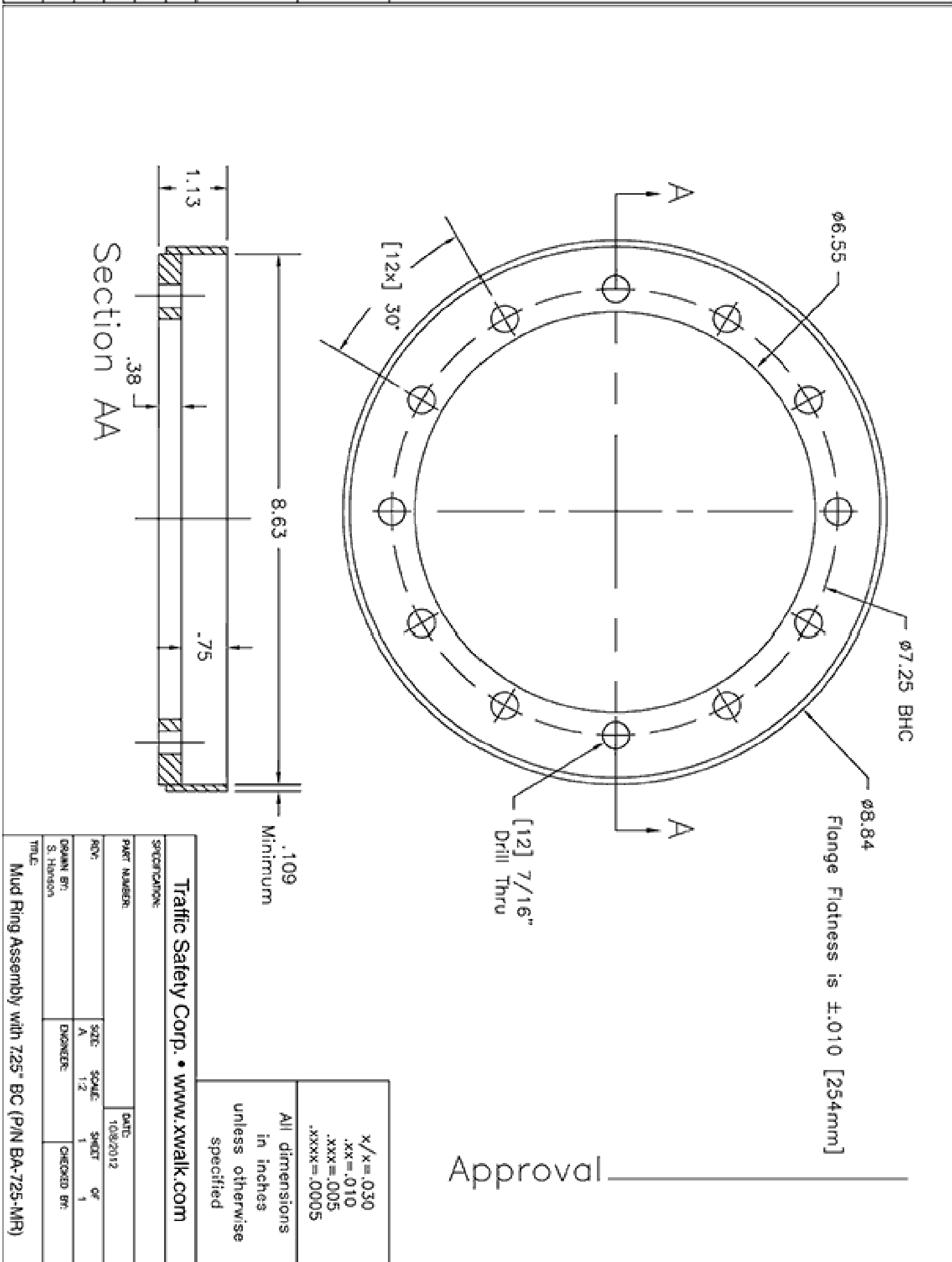
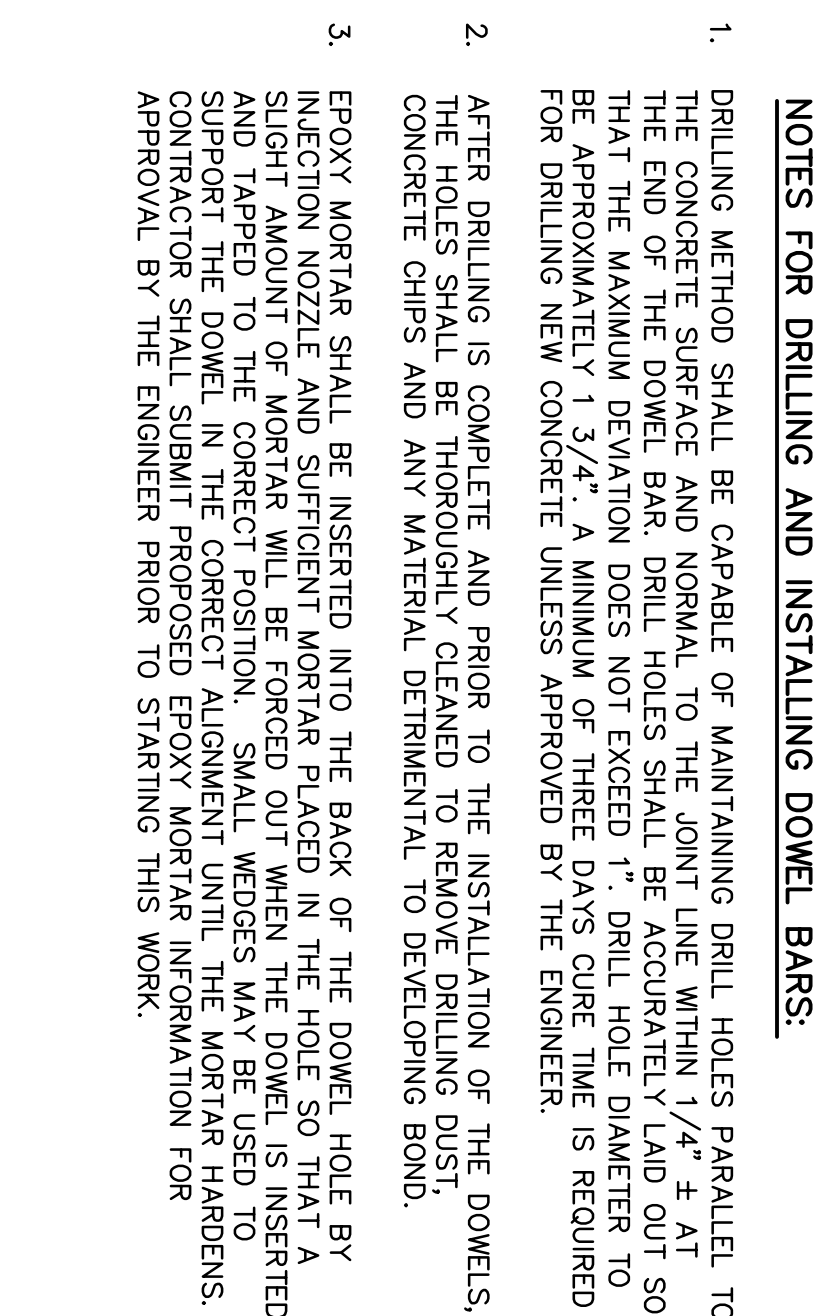
IN ODD SHAPED SLABS, REINFORCING MAY CONSIST OF TWO UNITS WITH AN APPROVED LONGITUDINAL HINGE. THE HINGE SHALL CONSIST OF W4 OR D4 STEEL WIRES CONNECTING THE TWO UNITS SUCH THAT THE LONGITUDINAL MEMBERS ON EITHER SIDE OF THE HINGE WILL BE PROPERLY SPACED WHEN THE REINFORCING IS IN THE FINAL POSITION.



 454 First Street Dayton, OH 45402 4440 Diamond Place Cincinnati, Ohio 45224 45214 45214		83723-8000 703-686-5546	
 Engineering		Architecture	
PASSERO ASSOCIATES		www.passero.com	
Dayton, Ohio Cincinnati, Ohio		Rochester, New York Albany, New York Jacksonville, Florida St. Augustine, Florida	
DAYTON INTERNATIONAL AIRPORT 3600 TERMINAL DRIVE #310 VANDALIA, OH 45377 (937) 454-8200		CANOPY RENOVATION 3600 TERMINAL DRIVE #300 VANDALIA, OH 45377	
TYPICAL SECTIONS AND PAVEMENT DETAILS			
(Center Line) 13602.00	(Right) EXMB	(Date) 2014.3.31	(Drawing No.) C408
JWB		C 2014.3.31 INK/BLACK/WHITE	



4 TRANSVERSE CONSTRUCTION JOINT



1. THE FIXTURE SHALL BE MODEL FI-TS600 AS MARKETED BY TRAFFIC SAFETY CORPORATION OR APPROVED EQUAL. IN ORDER BE CONSIDERED EQUAL, THE ALTERNATE FIXTURE SHALL SATISFY THE FOLLOWING REQUIREMENTS.

2. CONSTRUCTION - THE FIXTURE SHALL BE BIDIRECTIONAL AND OF MODULAR DESIGN COMPRISED OF A TOP CASTING AND TWO (2) PRE-FOCUSED OPTICAL CARTRIDGES MADE OF HIGH TENSILE STRENGTH ALUMINUM ALLOY. THE FIXTURE SHALL BE 0.00" ABOVE GRADE WHEN MOUNTED IN THE FACTORY SUPPLIED MOUNTING. THE DIAMETER OF THE FIXTURE SHALL NOT EXCEED 8" AND ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL.

3. DURABILITY - THE FIXTURE SHALL WITHSTAND A STATIC LOAD OF 44,000 LB. WITHOUT SUSTAINING PERMANENT DEFORMATION OR CRACKING OF MATERIALS. LEADS, GASKETS, ETC. SHALL BE RATED TO WITHSTAND 300 DEGREES F.

4. LED/LIGHT CARTRIDGE – EACH LENS SHALL BE MOLDED OF HIGH PERFORMANCE OPTICAL GRADE GLASS AND FORMED IN A REMOVABLE FACTORY SEALED OPTICAL CARTRIDGE. TWO CARTRIDGES REQUIRED PER FIXTURE. EACH CARTRIDGE CONSUMES 2.5 WATTS PER CARTRIDGE (5 WATTS PER FIXTURE) DURING THE ACTIVATION PERIOD OF THE FIXTURE.

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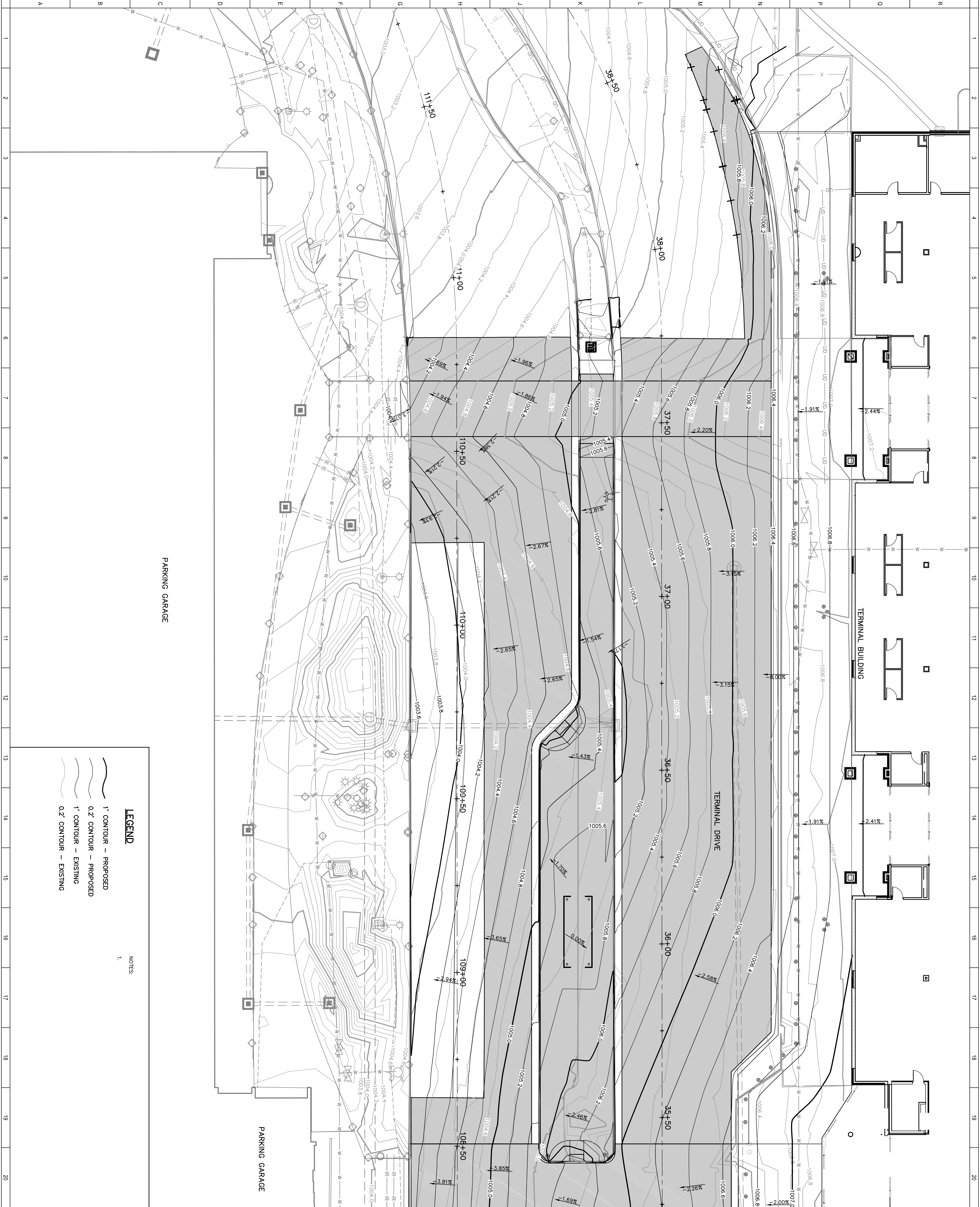
3600 TERMINAL DRIVE #3
VANDALIA, OH 45377

TYPICAL SECTIONS AND
PAVEMENT DETAILS

Comm. No.	Date
13602.00	2014.3.31

Drawing No.	ENB
Drawn	

Checked	C409
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PARKING GARAGE

TERMINAL BUILDING

TERMINAL DRIVE

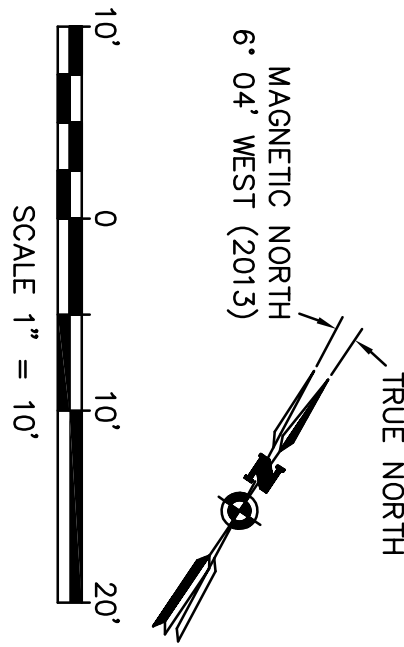
PARKING GARAGE

LEGEND

- 1' CONTOUR - PROPOSED
- 0.2' CONTOUR - PROPOSED
- 1' CONTOUR - EXISTING
- 0.2' CONTOUR - EXISTING

NOTES:
1.

MATCHLINE SHEET C702



LMWC
INCORPORATED
434 East First Street Dayton, OH 45402
4440 Grandview Place Cincinnati, OH 45224
937.233.8000
763.868.3246

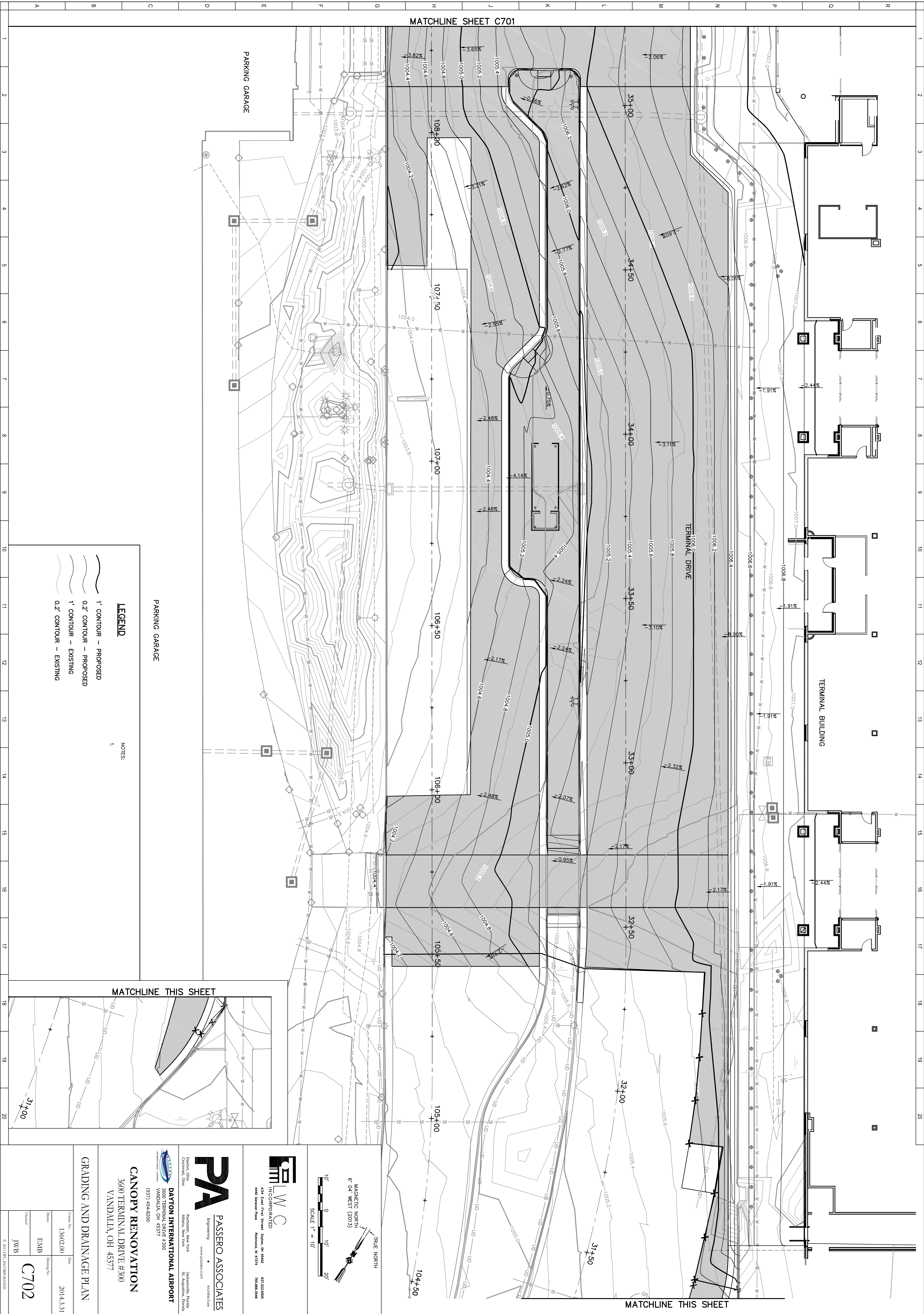
PA
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CANOPY RENOVATION
3600 TERMINAL DRIVE #300
VANDALIA, OH 45377

GRADING AND DRAINAGE PLAN

Grading No.	13602.00	Date	2014.3.31
Drawn	ENAB	Design No.	
Checked	JWB		
C701			

PRELIMINARY

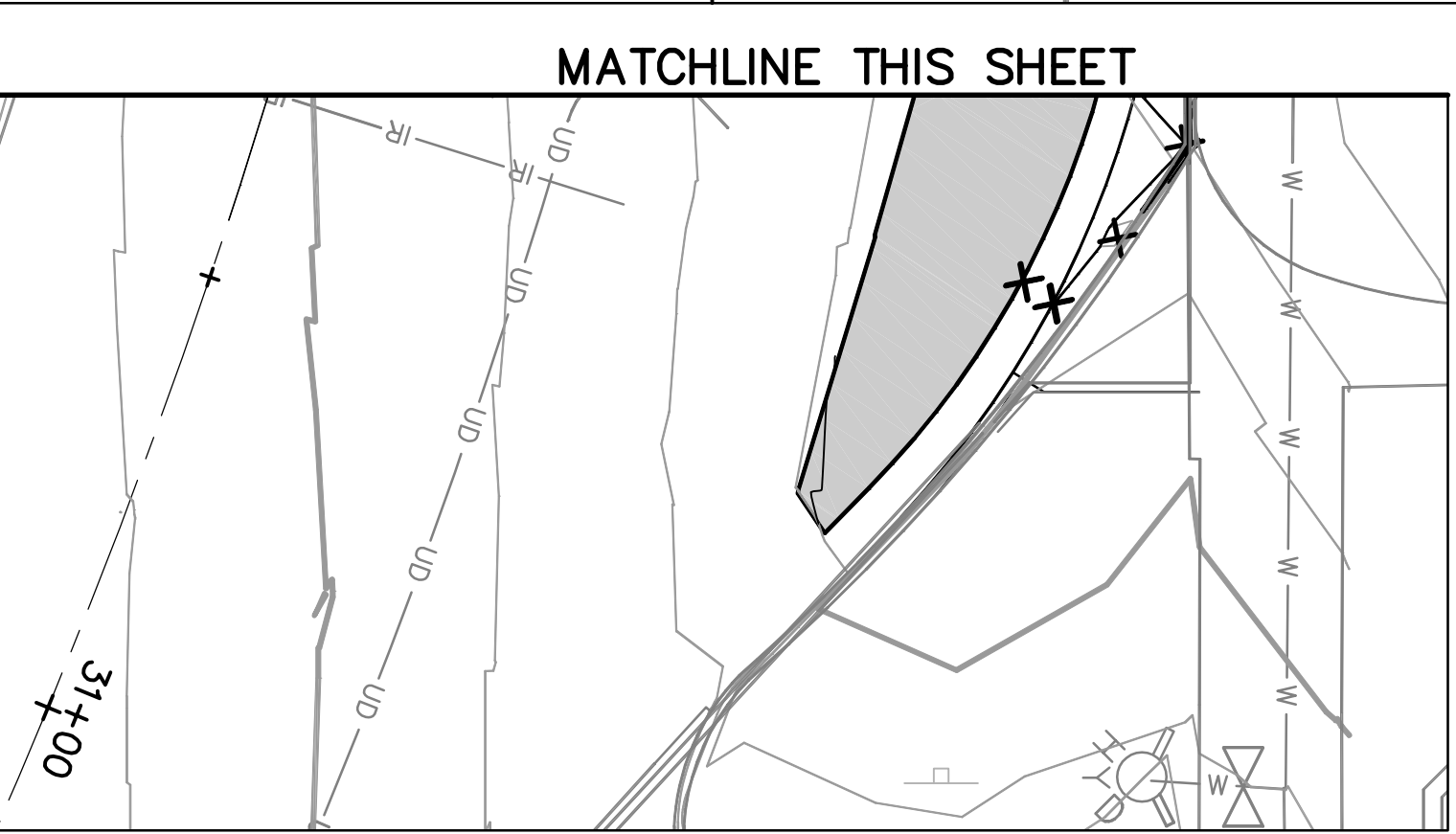


LEGEND

- 1' CONTOUR - PROPOSED
- 0.2' CONTOUR - PROPOSED
- 1' CONTOUR - EXISTING
- 0.2' CONTOUR - EXISTING

NOTES:

-



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GRADING AND DRAINAGE PLAN

Cont'n. No.	Date
13602.00	2014.3.31
ENAB	Drawing No.
Checked	
JWB	

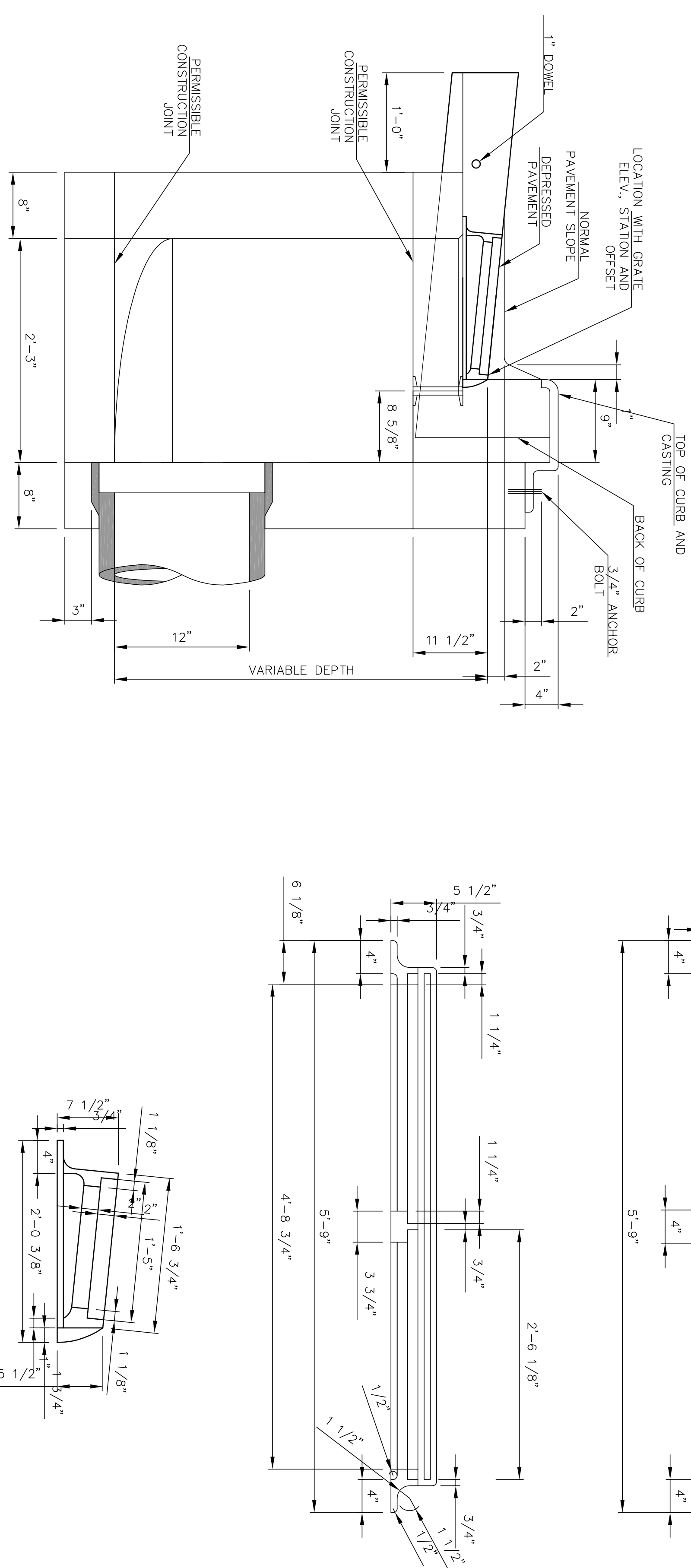
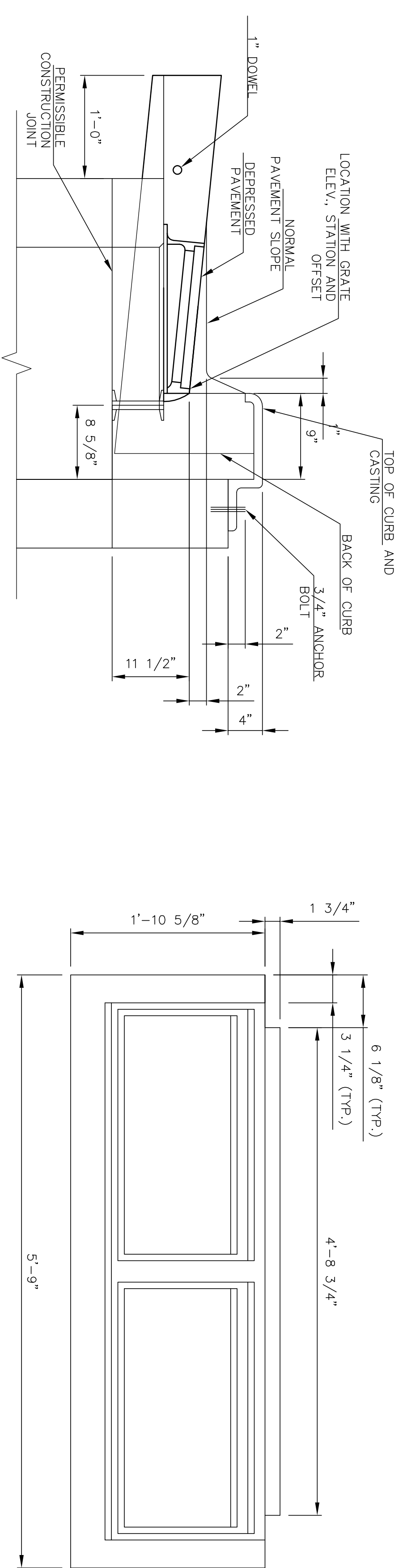
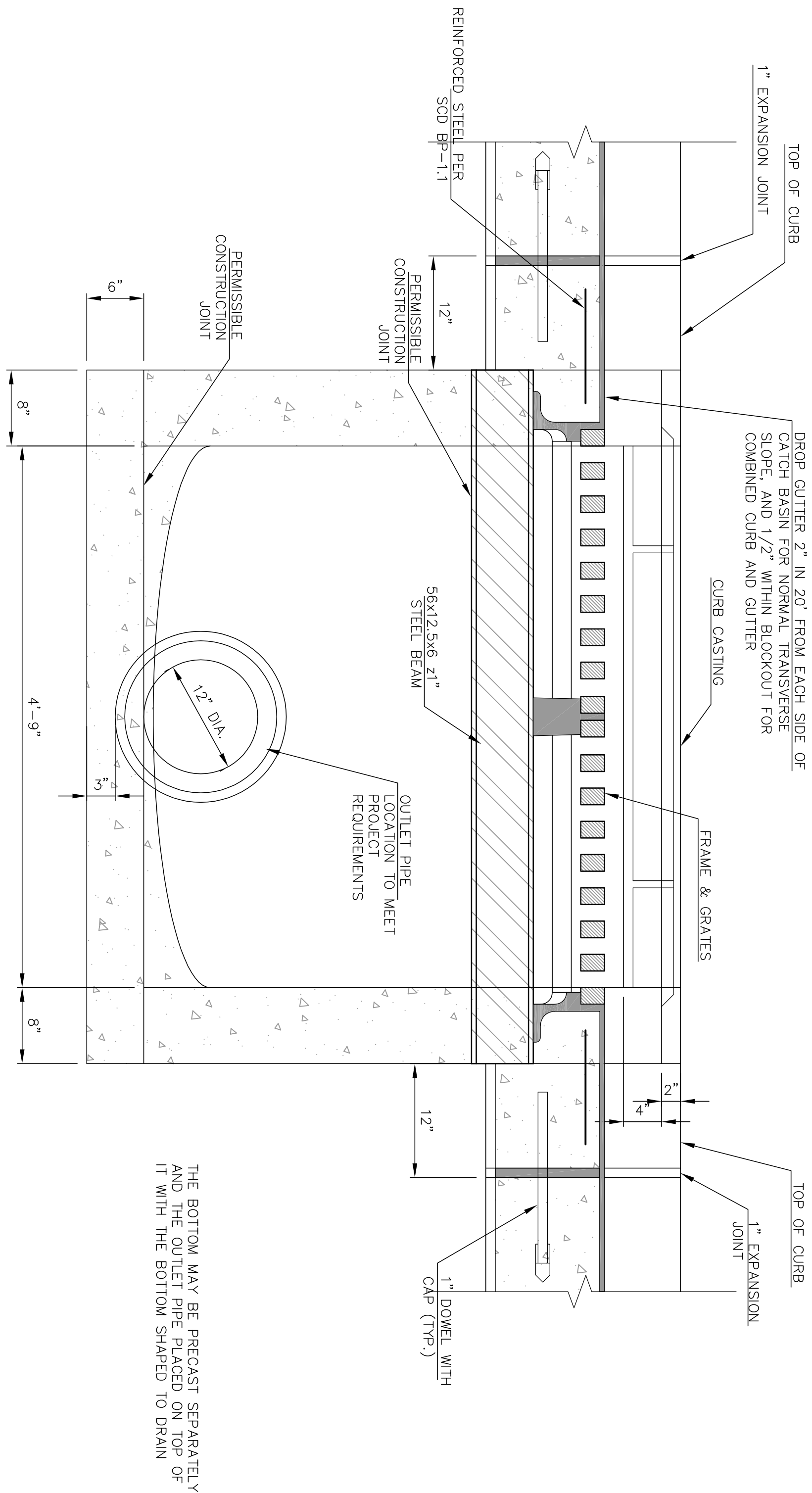
C702

FMWC INCORPORATED
454 East First Street
440 Grandview Place
Dayton, OH 45402
Piquette, OH 42374
937.233.8000
765.868.3546

MAGNETIC NORTH
6° 04' WEST (2013)

10' 0 10' 20'
SCALE 1" = 10'

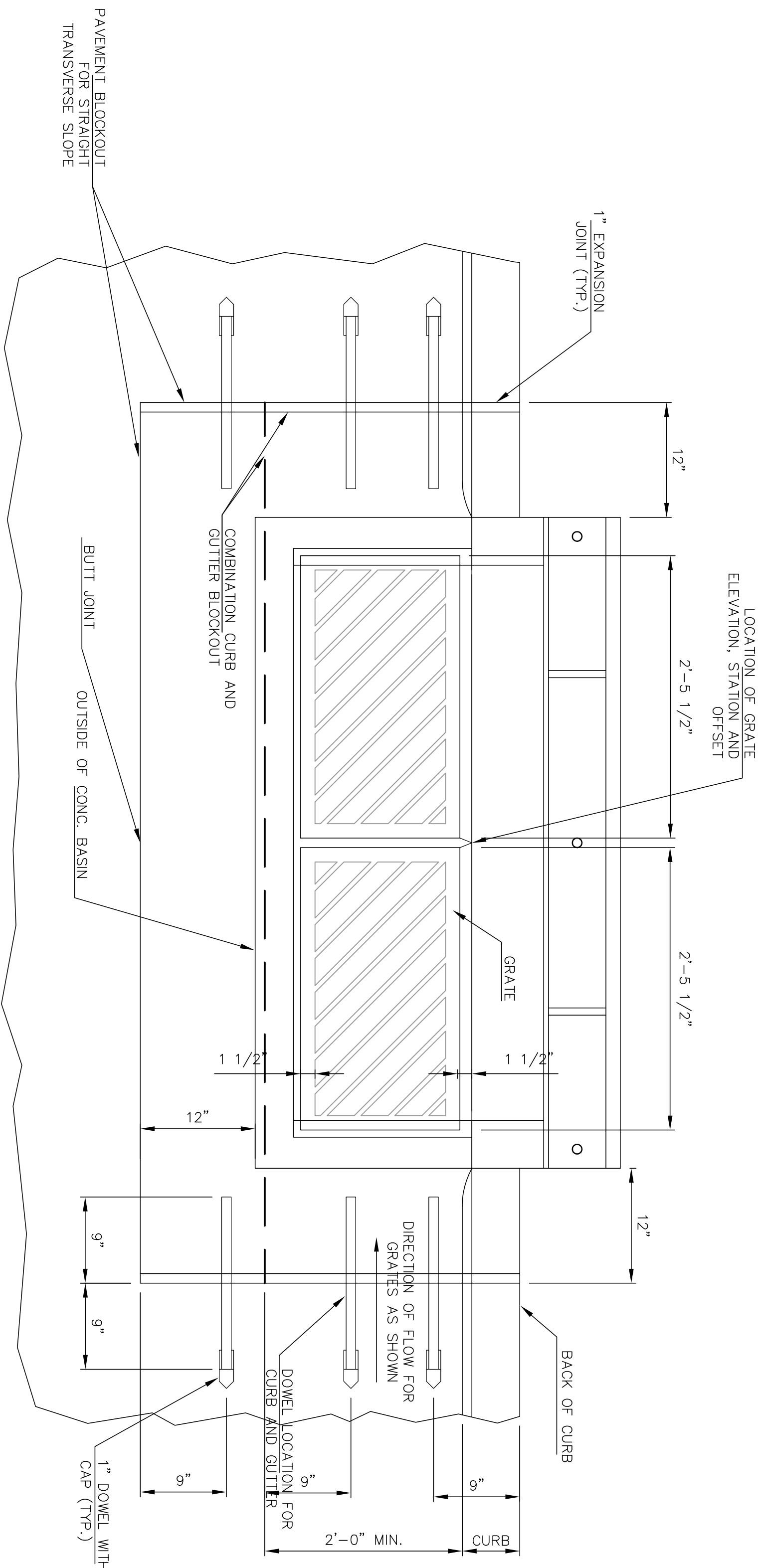
TRUE NORTH



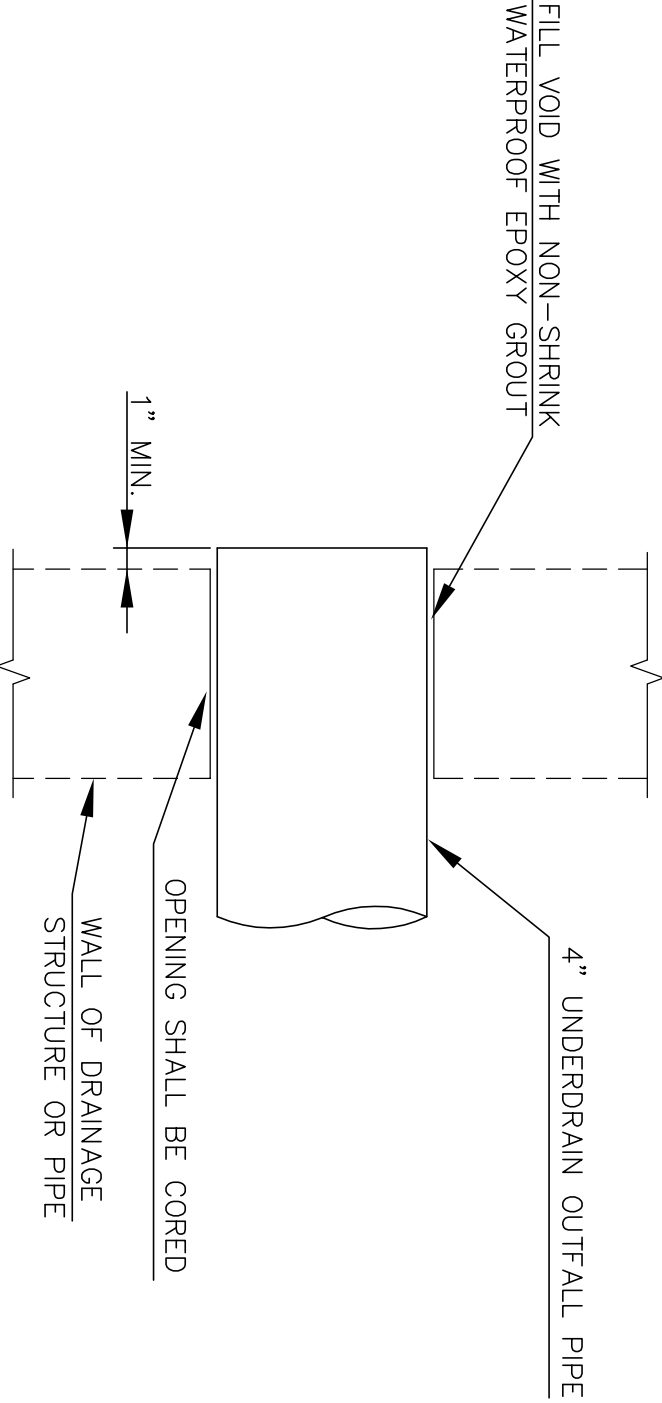
1 SECTION B-B WITH CURB (2" DEPRESSION)
CX-X
NOT TO SCALE

1 END VIEW FRAME
CX-X
CATCH BASIN NO. 3
NOT TO SCALE

1 CATCH BASIN NO. 3 AND PAVEMENT JOINTS
CX-X
NOT TO SCALE

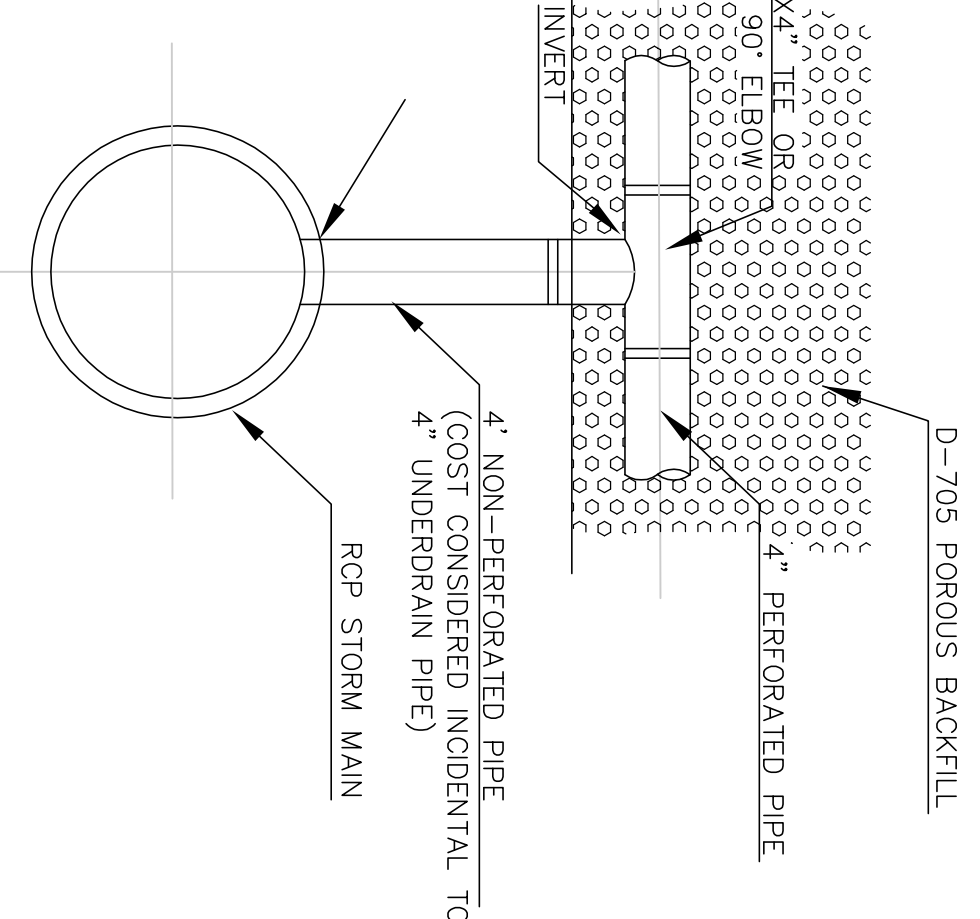


- NOTES:
1. GRATES, TWO REQUIRED. GRATE "V" SHALL BE PROVIDED UNLESS THE PLANS SPECIFY OTHERWISE. GRATE "V" SHALL BE PROVIDED UNLESS THE PLANS SPECIFY OTHERWISE. IT SHALL BE PLACED SO THAT THE DIAGONAL BARS DIRECT DRAINAGE FLOW TOWARD THE CURB.
 2. CASTINGS, THE DESIGN SHALL BE ESSENTIALLY THE SAME AND EQUALLY AS STRONG AS SHOWN.
 3. BEARING AREAS, THE FRAME AND GRATE SHALL BE SO FITTED AND FINISHED AS TO PROVIDE A FIRM AND EVEN SEAT. NO PROJECTIONS SHALL EXIST ON BEARING AREAS AND THE GRATE SHALL SEAT IN ITS FRAME WITHOUT ROCKING.
 4. WALLS, WHEN USED IN PLACE OF CONCRETE, BRICK, SIDE WALLS SHALL BE 8" NOMINAL THICKNESS.
 5. PRECAST CONSTRUCTION, PERMITTED EXCEPT FOR THE ABOVE. PRECAST WALLS SHALL HAVE A MINIMUM THICKNESS OF 6" AND REINFORCING SHALL BE SUFFICIENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE. THE WALL THICKNESS REDUCTION SHALL BE FROM THE OUTSIDE.
 6. MINIMUM DEPTH, THE MINIMUM DEPTH IS PER THE COVER REQUIREMENTS FOR THAT PIPE TYPE.
 7. OPENINGS, THE MAXIMUM PIPE OPENING SHALL BE THE O.D. OF THE PIPE BEING SUPPLIED PLUS 2" WHEN FABRICATED OR FIELD CUT. THE INTERSTITIAL SPACE SHALL BE FILLED WITH GROUT.
 8. DOWELS, FOUR 1"x8" DOWELS ARE REQUIRED FOR CONCRETE PAVEMENT OR GUTTER BLOCKOUT.
 9. TEXT: THE FOLLOWING TEXT SHALL BE CAST INTO THE TOP OF THE CURB CASTING: "DUMP NO WASTE" AND "DRAINS TO WATERWAY".



UNDERDRAIN OUTFALL CONNECTION

NOTE:
COST OF CORING AND GROUTING SHALL BE CONSIDERED INCIDENTAL TO ITEM 605.1 "4\"/>



UNDERDRAIN CONNECTION TO STORM MAIN

Grading No.	Date
13602.00	2014.3.31

DRAINAGE DETAILS

CANOPY RENOVATION
3600 TERMINAL DRIVE #300
VANDALIA, OH 45377

PASSERO ASSOCIATES, INC.
Engineering
www.passero.com
Architectural

Dayton, Ohio
3600 Terminal Drive #300
Vandalia, OH 45377
(937) 454-8200

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3600 Terminal Drive #300
Vandalia, Ohio 45377
(937) 454-8200

W.C. INCORPORATED
4534 East First Street
4440 Grandwood Place
Dayton, OH 45402
Bloomington, IN 47204
937.223.8500
765.866.3546



NOT TO SCALE



SECTION K-K



SECTION J-J



SECTION L-L



NOT TO SCALE



(CB B2 ONLY)



PLAN



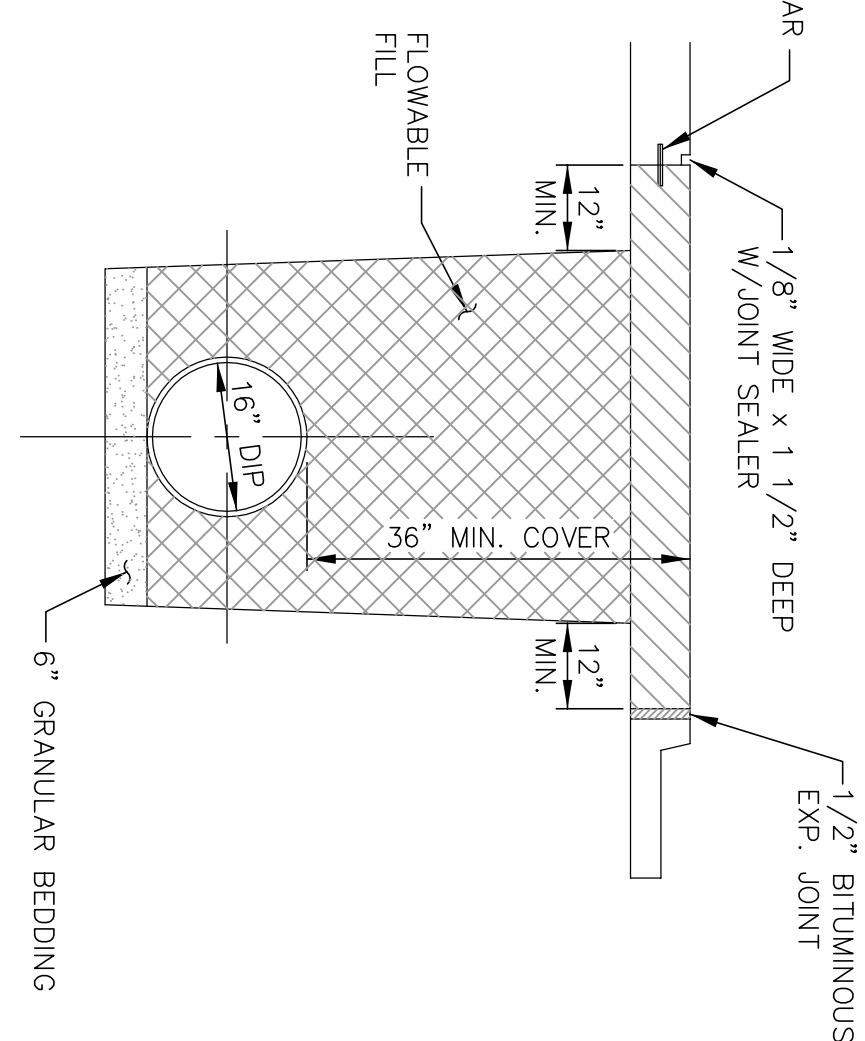
SECTION 0-0



FRAME AND LID



SECTION N-
LID
NOT TO SCALE



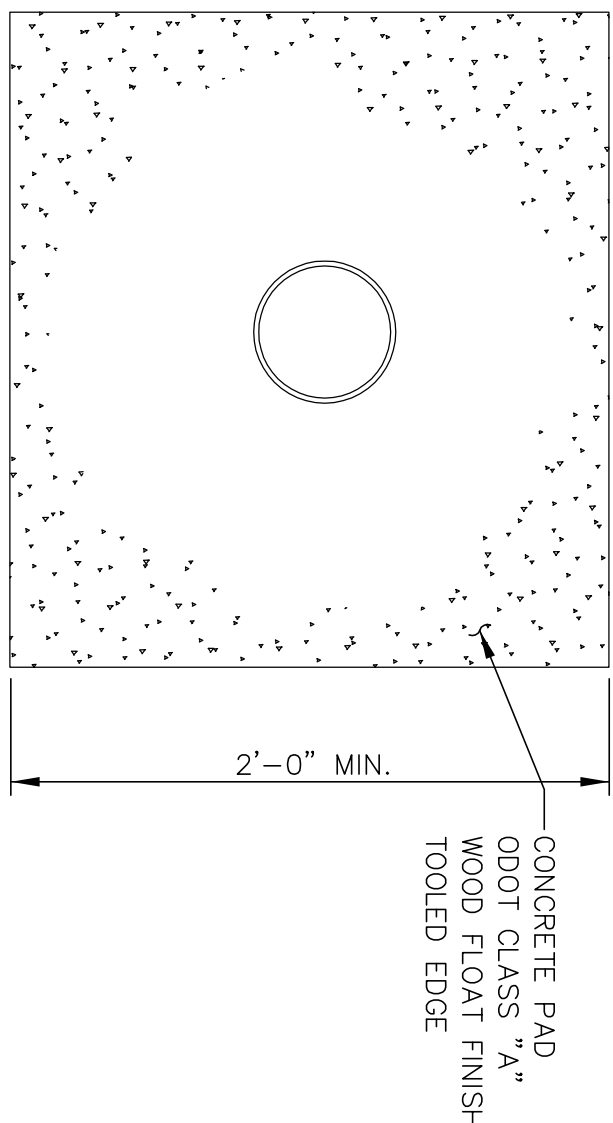
TYPICAL CONCRETE

1. ALL EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE REQUIRED TO FIELD LOCATE EXACT LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEPARTMENT OF WATER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR DEPTH OF THE UNDERGROUND FACILITIES SHOWN ON THE ASSIGNED CONSTRUCTION DRAWINGS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF DAYTON FOR ALL WORK INVOLVING REMOVAL AND REPLACING OR RELOCATING THESE UTILITIES SHALL BE INCIDENTAL TO THE COSTS FOR LOCATING, EXCAVATING AND PROTECTING THEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE DETERMINED BY HAND DIGGING AND/OR SURVEY.
2. LOCATION, SUPPORT PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE DEPARTMENT OF WATER.
4. ALL WORK SHALL CONFORM TO THE CITY OF DAYTON, CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION).
5. NO CONSTRUCTION SHALL COMMENCE UNTIL CITY OF DAYTON PERMITS HAVE BEEN ISSUED AS REQUIRED.
6. ALL PROJECTS GROSS (FIELD OR OFFICE) REQUESTS, CHANGES, ADDITIONS, OR DELAYNS PERTAINING TO PUBLIC WATER MAIN, STORM SEWER, AND SANITARY SEWER FACILITIES SHALL ONLY BY DIRECTION OR REQUEST OF THE DEPARTMENT OF WATER.
7. RESIDENTS AND BUSINESSSES AFFECTED BY STREET CLOSURES SHALL BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF THE ACTUAL STREET CLOSING.
8. ROADWAY RESTORATION WITHIN THE CITY OF DAYTON CORPORATION LIMITS SHALL BE DONE IN COMPLIANCE WITH THE DEPARTMENT OF PUBLIC WORKS' RULES AND REGULATIONS FOR MAJOR OPENINGS IN A PUBLIC WAY (LATEST EDITION).
9. PORT-A-LIGHTS PRIOR TO ANY CONSTRUCTION, EXCAVATION OR DESIGN, THE CONTRACTOR SHALL CALL AND NOTIFY THE OHIO TRENCH PROTECTION SERVICE AT A 800-852-2274 FOR ALL OTHER LICENSES, PERMITS, AND NOTICES THAT MAY BE NEEDED IN THIS AREA, AND ARE NOT INDICATED ON CITY'S PLANS, OR NOTIFIED DIRECTLY BY THE CONTRACTOR.
10. APPROVAL OF PLANS BY THE DEPARTMENT OF WATER DOES NOT RELIEVE THE DESIGNER, OWNER, OR PERSON IN CONTROL, OF THE PROPERTY FROM LIABILITY FOR INJURY TO PERSONS OR PROPERTY.

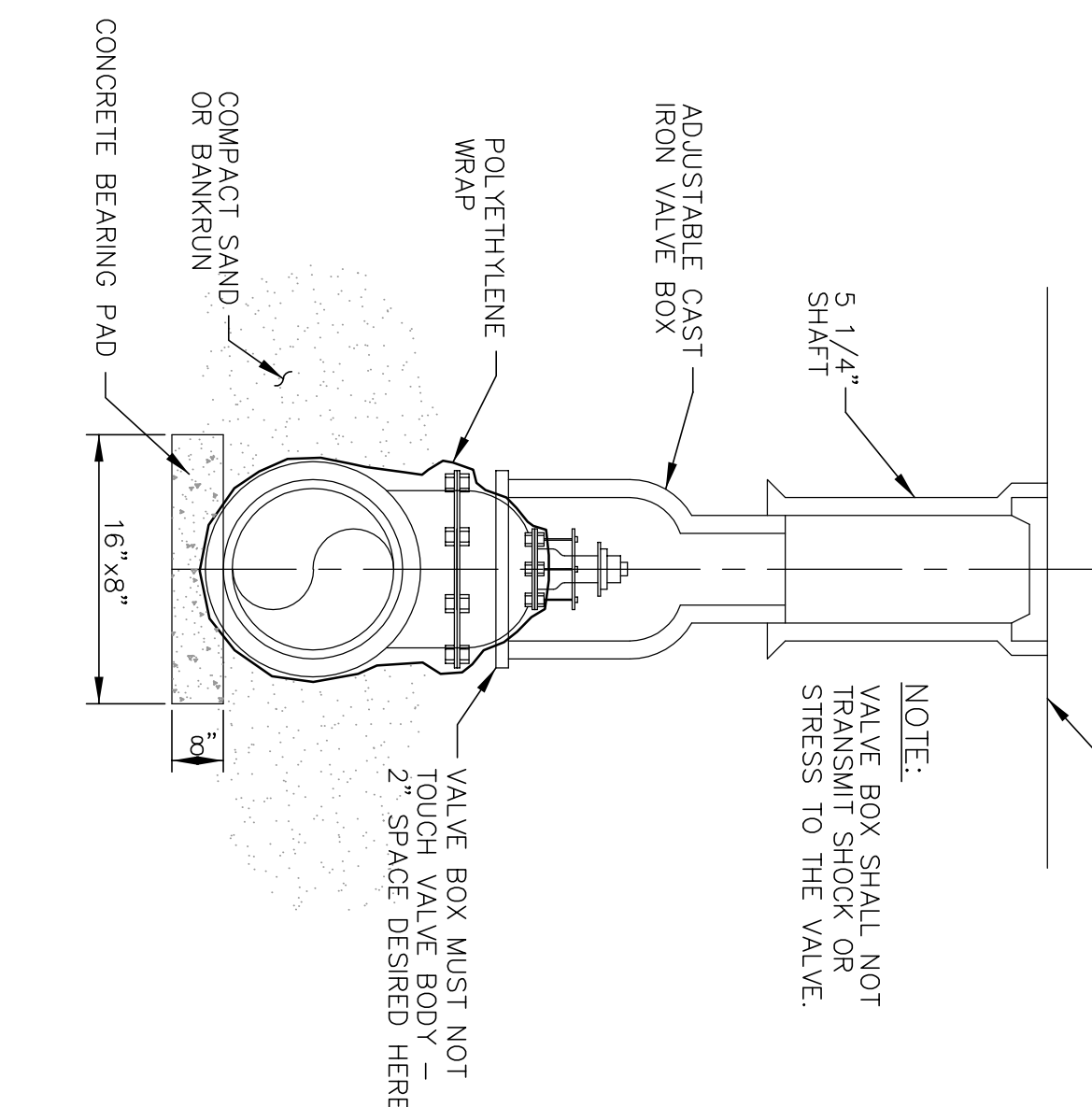
11. APPROVAL OF THE PLANS SHALL BECOME VOID IF CONSTRUCTION HAS NOT COMENCED WITHIN THIRTY (30) MONTHS FROM THE DATE APPROVED BY THE DEPARTMENT OF WATER. IN ADDITION, THE PLANS SHALL BECOME VOID IF CONSTRUCTION IS NOT COMPLETED WITHIN TWO (2) YEARS FROM THE DATE APPROVED BY THE DEPARTMENT OF WATER.

ALL PLANS INCLUDING MENHIS BEDDING AND BACKFILL INTENDED TO SUPPORT A WATER MAIN, SANITARY

1. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. ALL TRAFFIC CONTROL DEVICES AND THE MAINTENANCE OF TRAFFIC PLAN SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS.
2. THE CITY OF DAYTON SHALL INSPECT THE OPEN TRENCH PRIOR TO BACKFILLING.
3. ALL BACKFILL MATERIAL SHALL BE COMPACTED IN UNIFORM LAYERS TO INSURE AGAINST SETTLEMENT.

ELEVATION

1. 6" BRANCH LINE TO BE RESTRAINED FULL LENGTH.
2. CONCRETE THRUST BLOCK TO BE INSTALLED AT MAIN LINE TEE.
3. WOOD (OAK) THRUST BLOCK TO BE INSTALLED BEHIND INLET OF FIRE HYDRANT.
4. WASHED GRAVEL 3/4" OR LARGER TO BE PUT AROUND BRANCH OF FIRE HYDRANT.
5. MAXIMUM EXTENSION ALLOWED IS 24" (7' BORE HYDRANT).
6. RESTRAIN MAIN RUN ON THE TEE, ONE FULL LENGTH EACH DIRECTION.
7. PAINT HYDRANT ABOVE GRADE WITH #55 ENamel YELLOW OR RUSTOLDED YELLOW #944.



NOTE: RESTRAIN ALL NEW JOINTS.
RESTRAIN 8" PIPE 19' EACH SIDE
OF 45° BENDS.

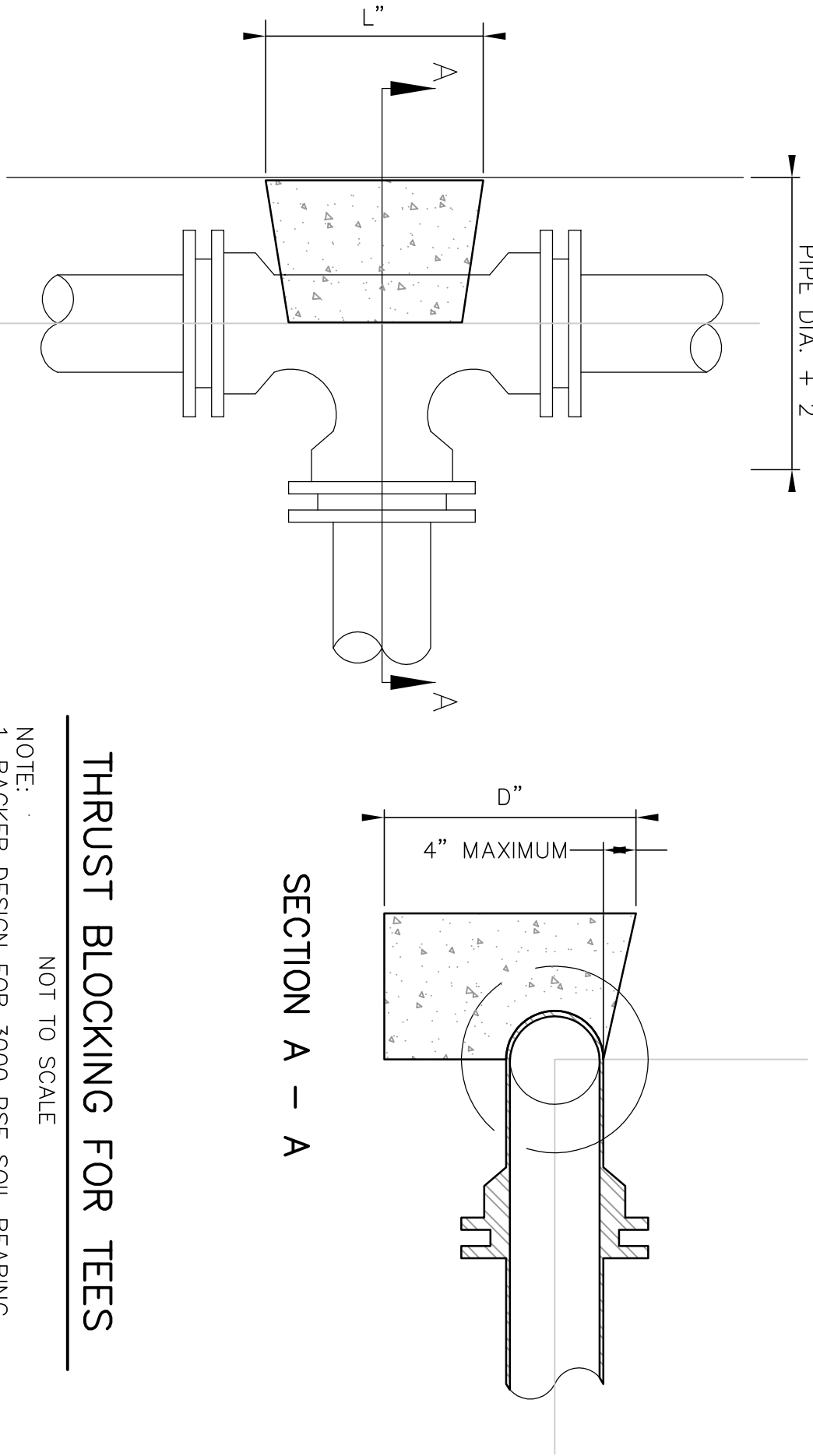
CITY OF DAYTON WATER MAIN NOTES:

1. ALL EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE REQUIRED TO FIELD LOCATE EXISTING LOCATIONS AND ELEVATIONS OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE DEPARTMENT OF WATER ASSURES NO RESPONSIBILITY FOR THE ACCURACY OR DEPTH OF THE UNDERGROUND UTILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING THE DAMAGE TO THE EXISTING UTILITIES. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING AND IDENTIFYING ALL COSTS FOR LOCATING, REMOVING AND REPLACING OR RELOCATING THESE UTILITIES SHALL BE INCURRED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING AND IDENTIFYING ALL COSTS FOR LOCATING, REMOVING AND REPLACING OR RELOCATING THESE UTILITIES SHALL BE INCURRED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING AND IDENTIFYING ALL COSTS FOR LOCATING, REMOVING AND REPLACING OR RELOCATING THESE UTILITIES SHALL BE INCURRED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING AND IDENTIFYING ALL COSTS FOR LOCATING, REMOVING AND REPLACING OR RELOCATING THESE UTILITIES SHALL BE INCURRED BY THE CONTRACTOR.
2. LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER OR NOT SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE DEPARTMENT OF WATER.
4. ALL WORK SHALL CONFORM TO THE CITY OF DAYTON, CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION).
5. NO CONSTRUCTION SHALL COMMENCE UNTIL CITY OF DAYTON PERMITS HAVE BEEN ISSUED AS REQUIRED.
6. ALL PROJECTS OWNERS (FIELD OR OFFICE), REQUESTS, CHANGES, ADDITIONS, OR DIRECTIONS PERTAINING TO PUBLIC WATERMAIN, STORM SEWER, AND SANITARY SEWER FACILITIES SHALL, ONLY BY DETENTION OR REQUEST TO THE CITY OF DAYTON, BE REVIEWED AND APPROVED BY THE CITY OF DAYTON.
7. REPAIRS AND REPLACEMENTS NEEDED BY STREET CLOSURES SHALL BE NOTED A MINIMUM OF 48 HOURS IN ADVANCE OF THE ACTUAL STREET CLOSURE.
8. A SODIUM RESTRICTION WITHIN THE CITY OF DAYTON CORPORATION LIMITS SHALL BE DONE IN COMPLIANCE WITH THE DEPARTMENT OF PUBLICS WORKS' RULES AND REGULATIONS FOR MAKING OPENINGS IN A PUBLIC WATERMAIN (LATEST EDITION).
9. FIRST-EIGHT HOURS PRIOR TO ANY CONSTRUCTION, EXCAVATION OR DIGGING, THE CONTRACTOR SHALL CALL AND NOTIFY THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AT 1-800-482-2374, ALL OTHER AGENCIES, WHICH MAY HAVE UNDERGROUND UTILITIES IN THIS AREA AND NOT MEMBERS OF OUPS, SHALL BE NOTIFIED DIRECTLY BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF DAYTON, OHIO, AND THE DEPARTMENT OF WATER, PRIOR TO ANY CONSTRUCTION OF THE PROJECT.
11. APPROVAL OF THE PLANS SHALL BECOME VOID IF CONSTRUCTION HAS NOT COMMENCED WITHIN THE 12 MONTHS FROM THE DATE OF APPROVAL. APPROVAL OF THE PLANS SHALL BECOME VOID IF CONSTRUCTION IS NOT COMPLETED WITHIN TWO (2) YEARS FROM THE DATE APPROVED BY THE DEPARTMENT OF WATER.
12. IN ADDITION TO THE NOTES ON THIS SHEET, CONTRACTOR'S ATTENTION SHALL BE DIRECTED TO THE NOTES ON THE ATTACHED SHEETS AS WELL.
13. CONNECTED LINES ARE TO BE MADE TO A MINIMUM OF THREE FEET ABOVE THE CROWN OF ANY PROPOSED WATER MAIN, SANITARY OR STORM SEWER LINES PRIOR TO CUTTING OF TRENCHES FOR PLACEMENT OF SAID LINES. ALL LINES SHALL BE CONTROLLED, COMPACTED AND INSPECTED.

PRELIMINARY

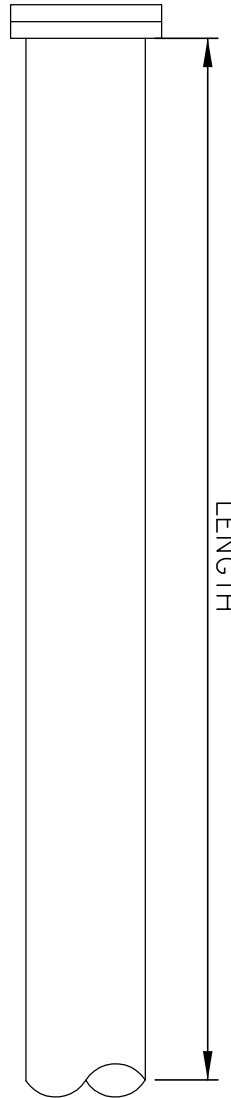
BRANCH												
3"	4"	6"	8"	12"	16"	20"	24"					
L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.					
3"	12 5 0.5											
4"	10 6 0.5	11 8 0.8										
6"	9 7 0.5	11 8 0.8	18 12 1.9									
8"	8 8 0.5	10 9 0.7	23 16 3.5									
12"	6 12 0.6	8 12 0.8	18 12 1.9	23 16 3.5	38 22 8.7							
16"	6 16 0.8	6 16 0.8	14 16 2.0	20 18 3.3	36 23 8.7	49 30 13.6						
20"	6 20 1.0	6 20 1.0	11 20 1.9	18 20 3.3	35 24 8.7	48 32 13.6	60 38 26.5					
24"	6 24 1.2	6 24 1.2	9 24 1.9	15 24 3.3	30 28 8.7	42 36 14.0	54 42 26.3	68 48 45.4				

STEEL WILL BE USED AS REQUIRED BY THE ENGINEER

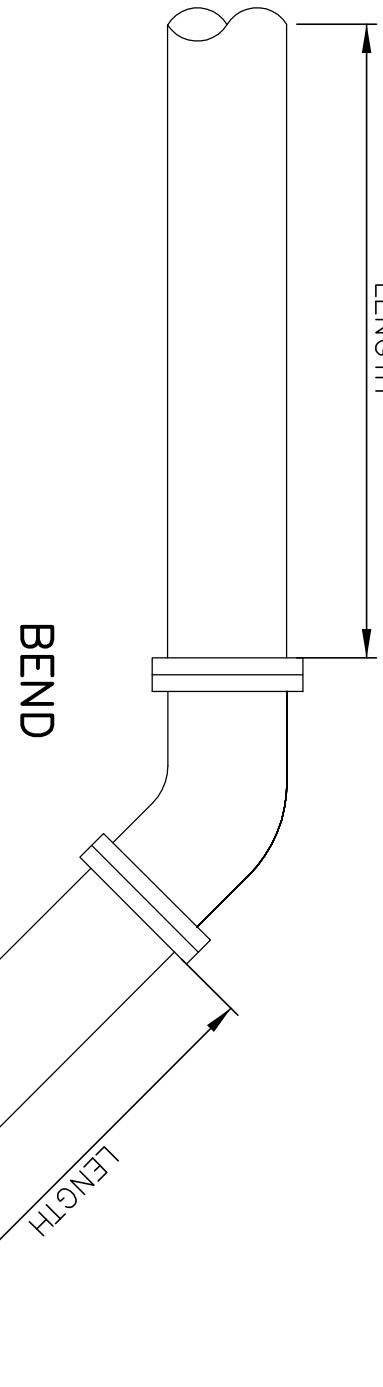


THRUST BLOCKING FOR TEES

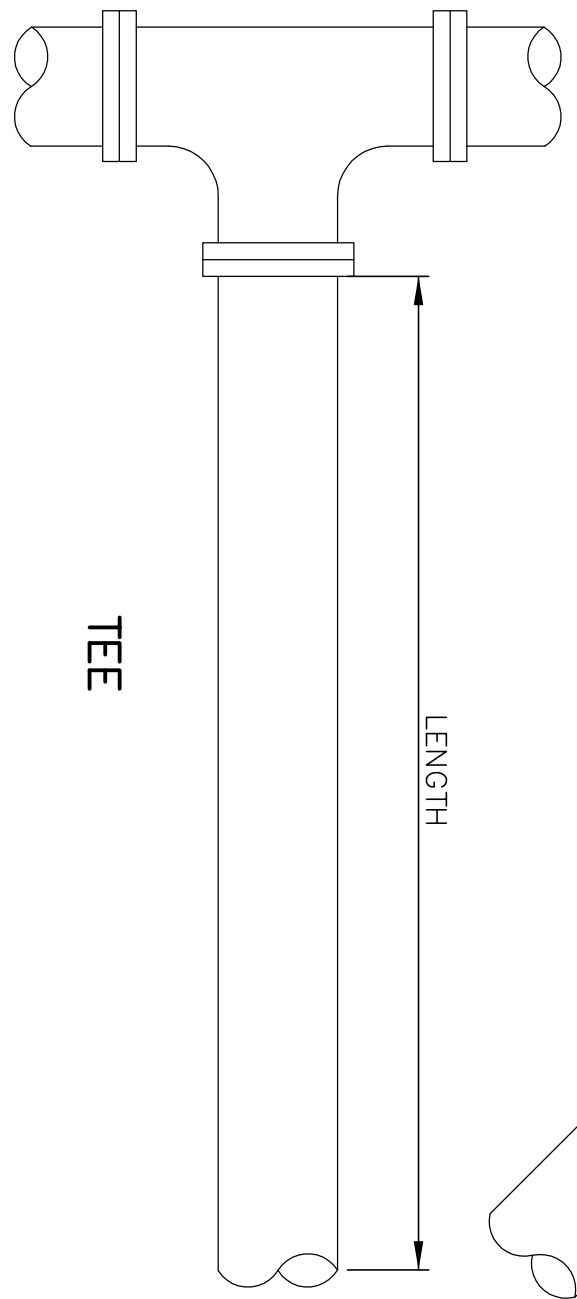
- NOTE: NOT TO SCALE
1. BACKER DESIGN FOR 3000 PSF SOIL BEARING.
 2. CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH.
 3. PROVIDE CLEARANCE FOR REMOVAL OF BOLTS.



THRUST BLOCKING FOR PLUGS



THRUST BLOCKING FOR BENDS



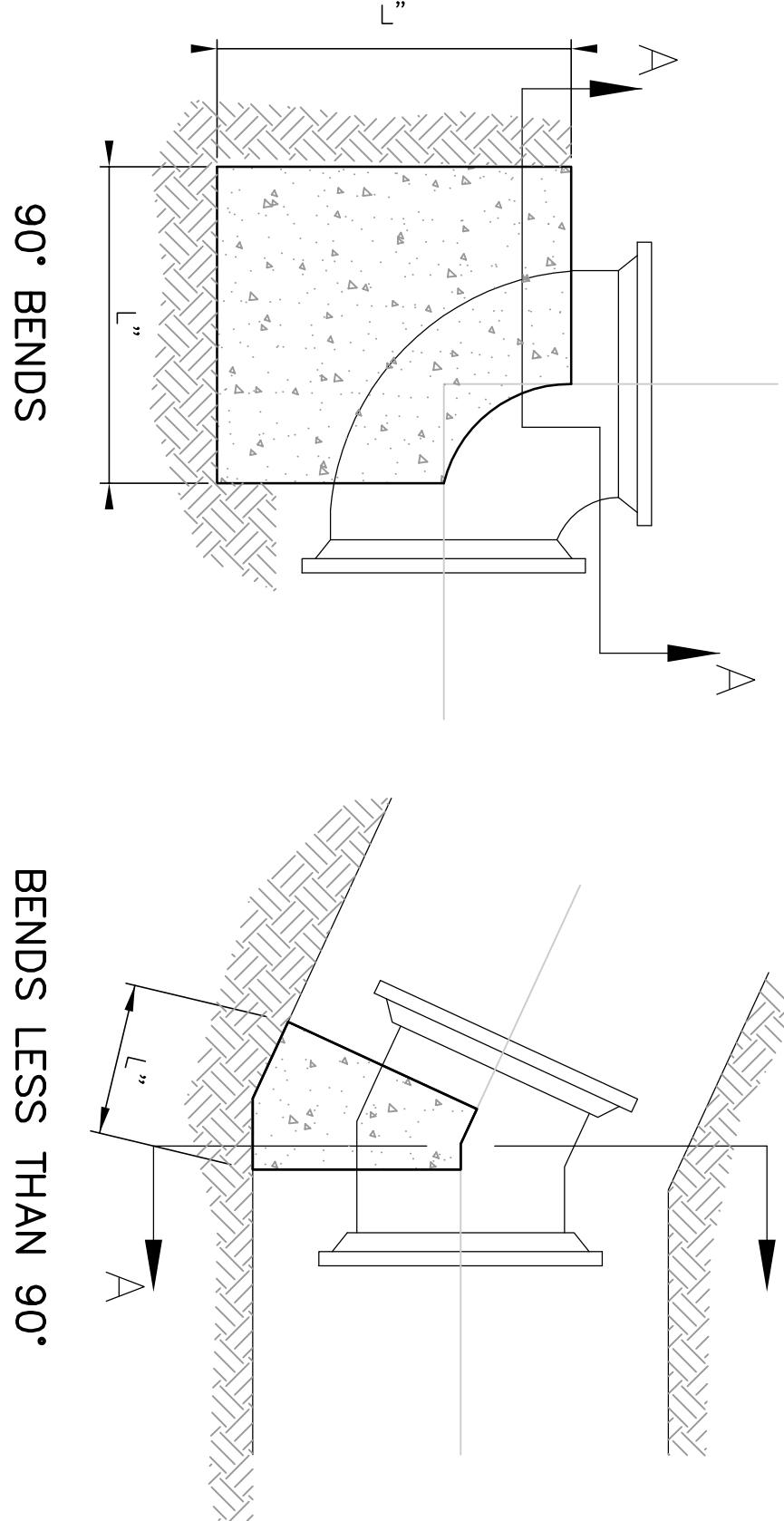
THRUST BLOCKING FOR TEES

RESTRAINED JOINT LENGTHS FOR WATER MAINS

NOT TO SCALE

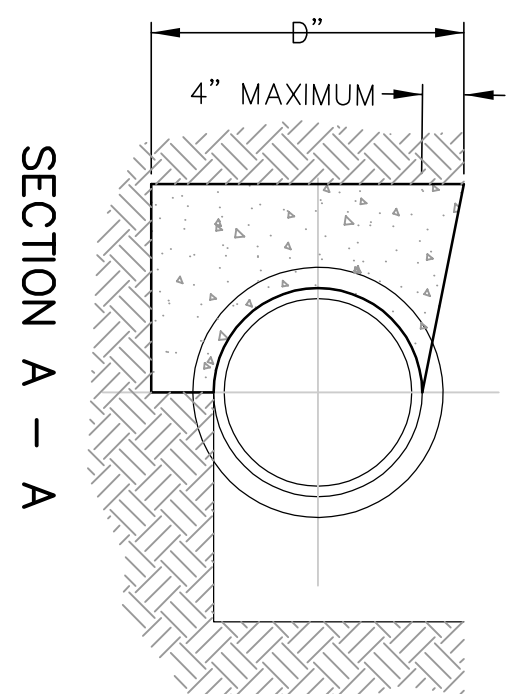
DEGREE OF BEND									
11°	22°	45°	90°						
L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.	L" D" Vc.f.
3"	4 3 0.1	6 4 0.2	10 4 0.3	14 4 0.5	14 5 0.6	14 5 0.6	14 5 0.6	14 5 0.6	14 5 0.6
4"	5 4 0.2	9 5 0.4	14 5 0.6	14 5 0.6	14 5 0.6	14 5 0.6	14 5 0.6	14 5 0.6	14 5 0.6
6"	8 6 0.5	12 7 0.7	20 8 1.4	18 9 1.7	18 9 1.7	18 9 1.7	18 9 1.7	18 9 1.7	18 9 1.7
8"	9 8 0.7	16 9 1.4	24 12 2.7	25 11 4.0	25 11 4.0	25 11 4.0	25 11 4.0	25 11 4.0	25 11 4.0
12"	14 12 1.8	24 14 3.6	36 18 6.9	32 18 10.7	32 18 10.7	32 18 10.7	32 18 10.7	32 18 10.7	32 18 10.7
16"	18 16 3.4	32 18 6.7	36 32 13.4	41 28 25.4	41 28 25.4	41 28 25.4	41 28 25.4	41 28 25.4	41 28 25.4
20"	25 20 6.4	30 30 11.5	49 36 20.5	50 32 46.5	50 32 46.5	50 32 46.5	50 32 46.5	50 32 46.5	50 32 46.5
24"	27 24 9.0	39 34 18.4	60 42 35.0	58 49 77.7	58 49 77.7	58 49 77.7	58 49 77.7	58 49 77.7	58 49 77.7

STEEL WILL BE USED AS REQUIRED BY THE ENGINEER



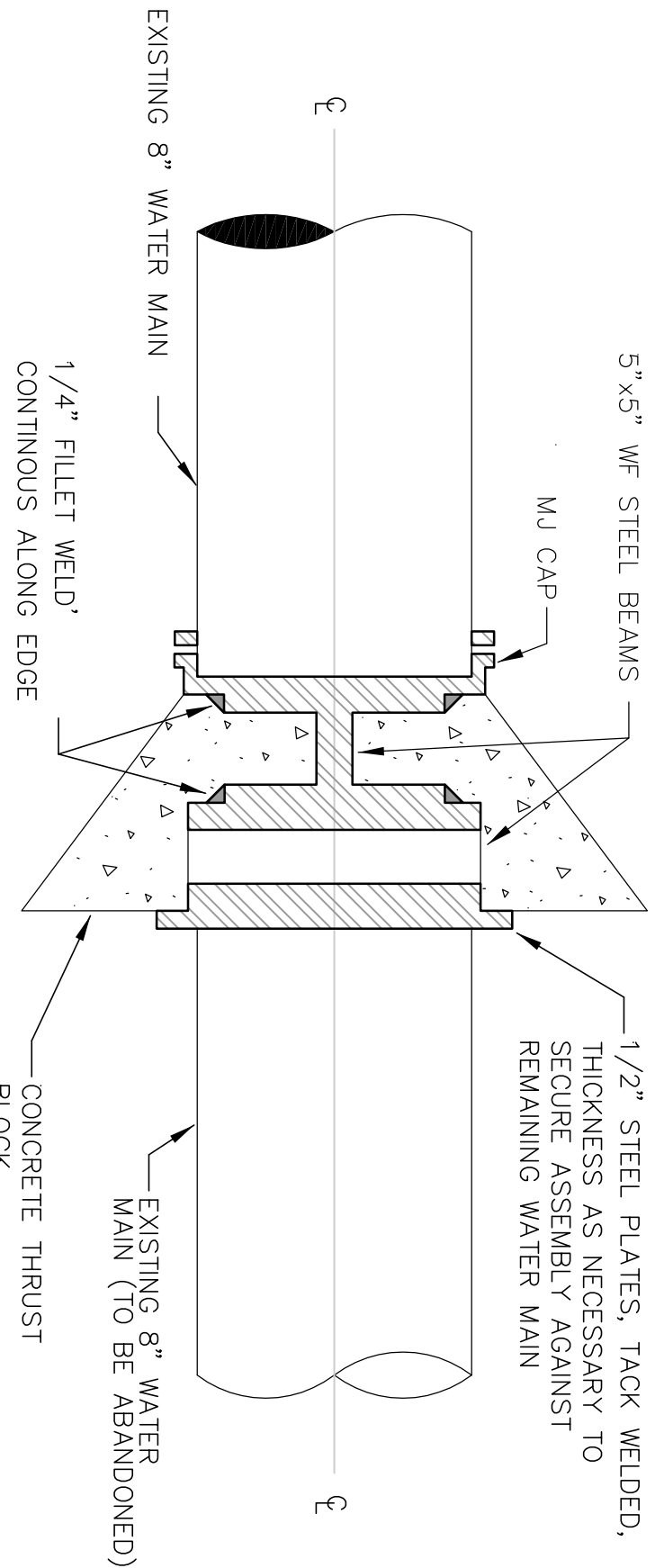
THRUST BLOCKING FOR BENDS

THRUST BLOCKING FOR BENDS



THRUST BLOCKING FOR BENDS

- NOTE: NOT TO SCALE
1. BACKER DESIGN FOR 3000 PSF SOIL BEARING.
 2. CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH.

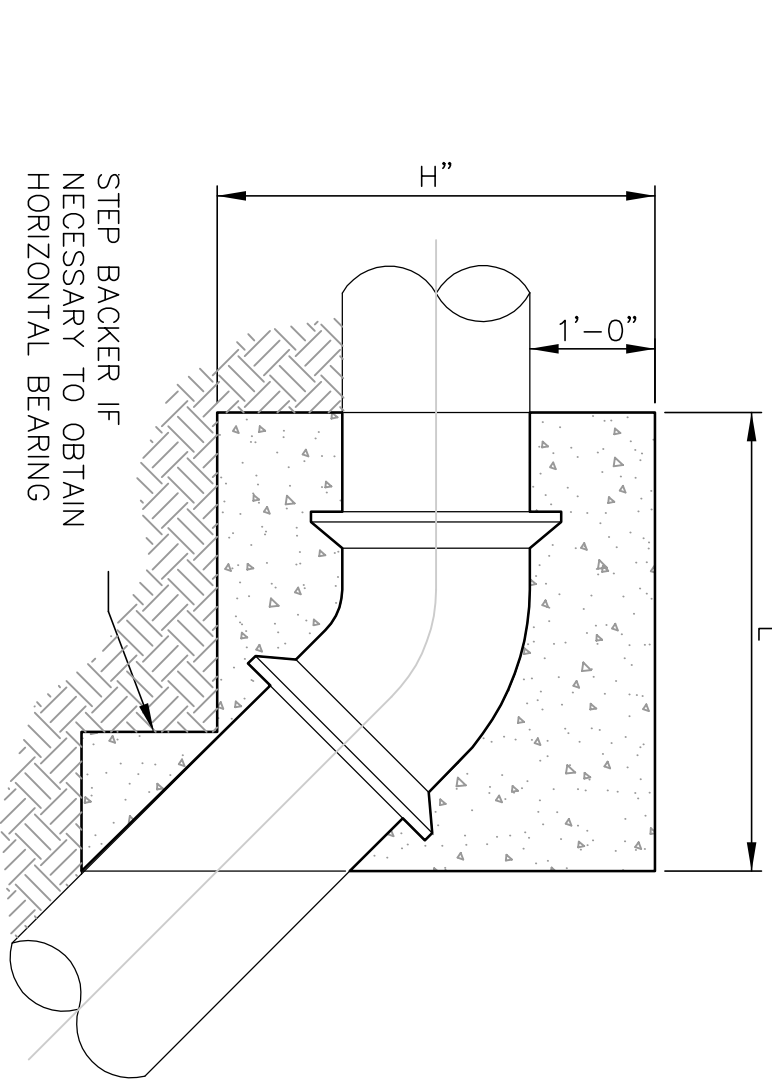


THRUST BLOCKING FOR BENDS

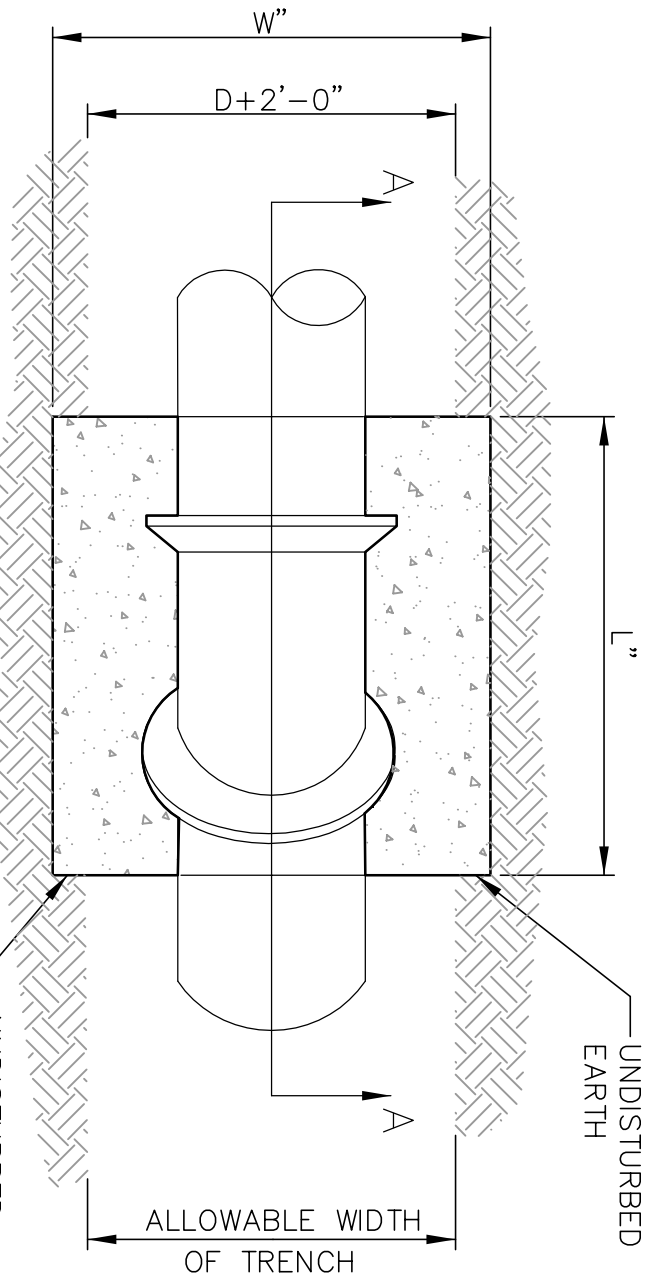
NOT TO SCALE

DEGREE OF BEND									
11 1/4°	22 1/2°	45°	90°						
L" W" H" Vol.	L" W" H" Vol.	L" W" H" Vol.	L" W" H" Vol.	L" W" H" Vol.	L" W" H" Vol.	L" W" H" Vol.	L" W" H" Vol.	L" W" H" Vol.	L" W" H" Vol.
3"	12 18 12 1.5	13 25 16 3.0	18 30 19 5.9	25 30 24 10.4	25 30 24 10.4	25 30 24 10.4	25 30 24 10.4	25 30 24 10.4	25 30 24 10.4
4"	12 24 16 2.6	16 30 18 5.0	22 36 24 11.0	27 48 25 18.7	27 48 25 18.7	27 48 25 18.7	27 48 25 18.7	27 48 25 18.7	27 48 25 18.7
6"	12 48 18 6.0	15 43 36 13.4	30 55 24 22.9	37 54 36 41.6	37 54 36 41.6	37 54 36 41.6	37 54 36 41.6	37 54 36 41.6	37 54 36 41.6
8"	12 63 24 10.5	18 57 34 20.2	36 57 33 39.2	47 60 46 75.0	47 60 46 75.0	47 60 46 75.0	47 60 46 75.0	47 60 46 75.0	47 60 46 75.0
12"	20 54 36 22.6	37 62 37 49.0	48 62 51 87.9	66 66 66 166.4	66 66 66 166.4	66 66 66 166.4	66 66 66 166.4	66 66 66 166.4	66 66 66 166.4
16"	31 65 38 44.3	60 65 39 88.1	65 65 65 159.2	72 96 72 280.0	72 96 72 280.0	72 96 72 280.0	72 96 72 280.0	72 96 72 280.0	72 96 72 280.0
20"	45 70 40 72.8	56 70 60 136.2	72 76 78 247.0	86 108 84 451.8	86 108 84 451.8	86 108 84 451.8	86 108 84 451.8	86 108 84 451.8	86 108 84 451.8
24"	41 72 54 92.3	67 74 69 198.0	88 84 84 359.1	96 120 96 640.0	96 120 96 640.0	96 120 96 640.0	96 120 96 640.0	96 120 96 640.0	96 120 96 640.0

STEEL WILL BE USED AS REQUIRED BY THE ENGINEER



THRUST BLOCKING FOR BENDS



THRUST BLOCKING FOR BENDS

THRUST BLOCKING FOR OVER VERTICAL BENDS (ONLY)

NOT TO SCALE

- NOTE: NOT TO SCALE
1. VOLUMES GIVEN IN CUBIC FEET.
 2. BACKER TO BE CENTERED HORIZONTALLY ON BEND.
 3. STEEL WILL BE USED AS REQUIRED BY ENGINEER.

4"	6"	8"	10"	12"	16"	LARGER THAN 16"
2'	3'	4'	5'	6'	8'	CONSULT
5'	7'	9'	11'	12'	16'	WATER
10'	14'	19'	22'	25'	33'	ENGINEERING
24'	33'	44'	53'	66'	98'	FOR RESTRAINED LENGTHS

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VANDALIA, OH 45377
(937) 454-8200

WATER DETAILS

Contract No.	Date
13602.00	2014.3.31
Drawn	Checked
ENB	JWB
Design No.	
C901	