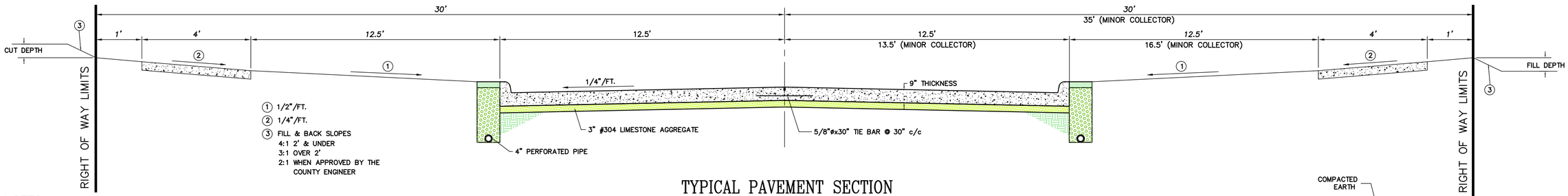
NON-REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT



TYPICAL PAVEMENT SECTION

NOTES

GENERAL:

CONCRETE PAVEMENT, INCLUDING THE MIXING, PLACING, FINISHING, CURING, AND PROTECTION OF SAME, SHALL CONFORM TO SPECIFICATION ITEMS 452 AND 499, STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION).

THE CONTRACTOR SHALL KEEP ALL EXISTING AND PROPOSED PAVEMENTS CLEAR OF MUD, DEBRIS, AND OILS AND KEEP THE RIGHT-OF-WAY CLEAR OF EQUIPMENT AND MATERIALS. TRAFFIC CONTROL ON EXISTING ROADS SHALL BE MAINTAINED ACCORDING TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

NO TRAFFIC SHALL BE PERMITTED ON THE CONCRETE PAVEMENT FOR A PERIOD OF 7 DAYS UNLESS TESTING INDICATES THAT A MINIMUM FLEXURAL STRENGTH OF 600 PSI HAS BEEN OBTAINED. DURING THIS TIME THE PAVING CONTRACTOR SHALL PROVIDE ADEQUATE BARRICADES AS DIRECTED BY THE MEDINA COUNTY ENGINEER.

JOINT SEALING MUST BE COMPLETED AND APPROVED BY THE MEDINA COUNTY ENGINEER BEFORE THE ROAD IS OPEN TO ANY TRAFFIC.

MATERIALS:

CONCRETE	499
CURING MATERIALS (LIQUID)	705.07 (@ MINIMUM 1 GAL./150 FT.^{2})
PREFORMED JOINT FILLER	705.03
JOINT SEALER (HOT APPLIED)	* SEE NOTE

* JOINT SEALER MATERIAL SHALL MEET ASTM D3405 AND SS-S-1401C. THIS MATERIAL SHALL BE "CRAFCO-ROADSAVER 221" OR "W. R. MEADOWS - HI-SPEC POLYMERIC JOINT SEALING COMPOUND" OR APPROVED EQUAL.

CONCRETE MIXTURE:

CLASS - MEDINA C (PER CUBIC YARD)

No. 57 LIMESTONE	1,200 LBS.
No. 8 LIMESTONE	500 LBS.
FINE AGGREGATE	1,315 LBS.
CEMENT - TYPE 1	600 LBS.
*POLYPROPYLENE FIBERS	1.5 LBS.
WATER	MAX. WATER-CEMENT RATIO 0.50
ENTRAINED AIR	4% TO 8%
SLUMP-MAXIMUM	3" **

CLASS - MEDINA C-1 (PER CUBIC YARD)

No. 57 LIMESTONE	1,200 LBS.
No. 8 LIMESTONE	500 LBS.
FINE AGGREGATE	1,340 LBS.
CEMENT - TYPE 1	510 LBS.
*POLYPROPYLENE FIBERS	1.5 LBS.
FLY ASH - TYPE C ONLY	90 LBS.
WATER	MAX. WATER-CEMENT RATIO 0.50
ENTRAINED AIR	4% TO 8%
SLUMP-MAXIMUM	3" **

NO CHANGES SHALL BE MADE TO THIS MIX DESIGN WITHOUT PRIOR APPROVAL OF THE MEDINA COUNTY ENGINEER.

*POLYPROPYLENE FIBERS SHALL BE IN FIBRILLATED-NETWORK FORM MADE OF VIRGIN MATERIALS WITH MINIMUM 1 1/2" FIBER LENGTH.

**PLASTICIZERS AND WATER REDUCERS APPROVED FOR HAND WORK.

LONGITUDINAL JOINTS:

LONGITUDINAL JOINTS SHALL BE ON THE CENTERLINE OF THE PAVEMENT UNLESS OTHERWISE DIRECTED.

EXPANSION JOINTS:

EXPANSION JOINTS SHALL BE INSTALLED AT THE THROAT OF ALL CUL-DE-SACS AND AT THE RADIUS RETURN OF ALL SIDE STREETS. THE THICKENED EDGE EXPANSION JOINT DESIGN SHALL BE USED (SEE DETAIL), WHEN THE AMBIENT TEMPERATURE FALLS BELOW 40°F (4°C) ADDITIONAL EXPANSION JOINTS ARE TO BE INSTALLED AT 600'-1,000' INTERVALS.

CONTRACTION JOINTS:

CONTRACTION JOINTS SHALL BE UNIFORMLY SPACED AND SLABS SHALL BE SQUARE WHENEVER POSSIBLE. MAXIMUM JOINT SPACING SHALL BE (12) FEET FOR (7) INCH THICK PAVEMENT, (14) FEET FOR (8) INCH THICK PAVEMENT AND (15) FEET FOR (9) INCH THICK PAVEMENT. IF RECTANGULAR SLABS ARE REQUIRED, ONE DIMENSION SHOULD NEVER EXCEED THE OTHER BY MORE THAN 1.5 TIMES. JOINTS SHOULD HAVE A MINIMUM DEPTH OF 1/4 THE THICKNESS OF THE SLAB AND JOINTS SHOULD BE CONTINUOUS AND EXTEND THROUGH INTEGRAL CURBS.

CONSTRUCTION JOINTS:

SMOOTH DOWELS SHALL BE USED IN TYPE "B" CONSTRUCTION JOINTS IN ALL PAVEMENTS. THE JOINT SHALL BE FORMED BY USING AN ADEQUATE BULKHEAD THAT WILL PROVIDE A STRAIGHT JOINT. THE BULKHEAD SHALL BE SHAPED TO FIT THE TYPICAL SECTION OF THE PAVEMENT. DOWELS SHALL BE HELD RIGIDLY IN POSITION DURING THE PLACING OF THE CONCRETE.

EXPANSION BOLT JOINT:

SELF-DRILLING ANCHORS MAY BE OF THE FLUSH-END TYPE OR OF THE SNAP-OFF CHUCK-END TYPE CONFORMING TO FEDERAL SPECIFICATION NO. FF-S325, GROUP III, TYPE (A) OR (C) EXCEPT FOR THE OUTSIDE DIAMETER OF THE ANCHOR. THE HOOK BOLT OR ALTERNATE MAY BE USED TO COMPLETE THE ASSEMBLY.

HOOK BOLTS & TIE BARS:

HOOK BOLT INSERTS SHALL BE TURNED TO A TIGHT FIT.

TIE BARS SHALL BE 5/8" ROUND, DEFORMED BARS. A SATISFACTORY DEVICE SHALL BE USED TO HOLD THE TIE BARS IN PROPER POSITION.

TIE BARS AND HOOK BOLT ASSEMBLIES SHALL HAVE A MINIMUM STRENGTH OF 11,000 POUNDS.

MONUMENT PINS:

WHERE INDICATED ON THE PLANS, "INSTALL MONUMENT", THE CONTRACTOR SHALL INSTALL MONUMENT BOX AS SHOWN IN THE MONUMENT BOX DETAIL. MONUMENT BOX CASTING TO BE EJIW #2960 OR APPROVED EQUAL.

UNDERDRAINS:

PIPE UNDERDRAINS SHALL BE INSTALLED ALONG ALL PAVEMENT EDGES. DRAINS SHOULD OUTLET AT 500 FOOT MAXIMUM SPACINGS AND SHALL CONNECT TO CULVERTS, MANHOLES AND CATCH BASINS WITH A 6" CORE. IF STRUCTURES ARE MORE THAN 500 FOOT APART, THE DRAINS SHOULD OUTLET TO THE ROADSIDE DITCH OR DRAINAGE CHANNEL AS DIRECTED BY THE ENGINEER. UNDERDRAINS SHALL BE CONSTRUCTED USING PERFORATED 4" CORRUGATED POLYETHYLENE SMOOTH-LINED PIPE (PER O.D.O.T. ITEM 707.33) BACKFILL MATERIAL SHALL BE No.57 LIMESTONE.

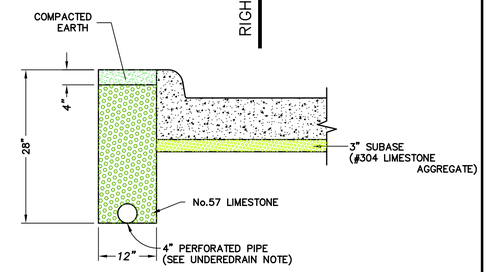
COLD WEATHER CONCRETING:

WHEN CONCRETE HAS BEEN PLACED IN COLD WEATHER AND THE TEMPERATURE MAY BE EXPECTED TO DROP BELOW 35 DEGREES F., STRAW, HAY, INSULATING BLANKETS OR OTHER SUITABLE MATERIAL SHALL BE PROVIDED ALONG THE LINE OF WORK. WHENEVER THE AIR TEMPERATURE MAY BE EXPECTED TO REACH THE FREEZING POINT DURING THE DAY OR NIGHT, THE MATERIAL SHALL BE SPREAD OVER THE CONCRETE DEEP ENOUGH TO PREVENT FREEZING OF THE CONCRETE. CONCRETE SHALL BE PROTECTED FROM FREEZING TEMPERATURES UNTIL IT IS AT LEAST FIVE (5) DAYS OLD. NO CONCRETE WILL BE MIXED, PLACED, OR FINISHED AFTER DARK, UNLESS AN ADEQUATE AND APPROVED ARTIFICIAL LIGHTING SYSTEM IS OPERATED. THE SUBGRADE OR SUBBASE UPON WHICH CONCRETE IS TO BE PLACED SHALL BE ENTIRELY FREE FROM FROST WHEN CONCRETE IS DEPOSITED. CONCRETE INJURED BY FROST ACTION SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR WILL NOT POUR CONCRETE STREETS FROM NOVEMBER 15 TO MARCH 15, EXCEPT BY SPECIFIED WRITTEN AUTHORIZATION.

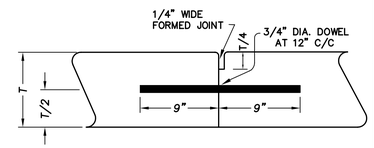
THE ABOVE NOTES ARE GENERAL GUIDELINES FOR COLD WEATHER PROTECTION, ACTUAL REQUIREMENTS AND APPROVAL FOR PAVING UNDER COLD WEATHER CONDITIONS SHALL BE DETERMINED BY THE MEDINA COUNTY ENGINEER OR HIS DULY APPOINTED AGENT A MINIMUM OF 24 HOURS PRIOR TO PAVING. THESE REQUIREMENTS SHALL BE DETERMINED BY THE MEDINA COUNTY ENGINEER BASED ON EXISTING WEATHER CONDITIONS, EXISTING GROUND TEMPERATURE, CONCRETE PROPORTIONS (WATER CONTENT, ADMIXTURES, ETC.) AND THE WEATHER FORECAST FOR THE FOLLOWING FIVE (5) DAYS.

THE ACI MANUAL OF CONCRETE PRACTICE, SECTION 306 "RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING" SHALL BE USED AS A GENERAL REFERENCE FOR DETERMINING THE REQUIREMENTS TO BE IMPOSED BY THE MEDINA COUNTY ENGINEER.

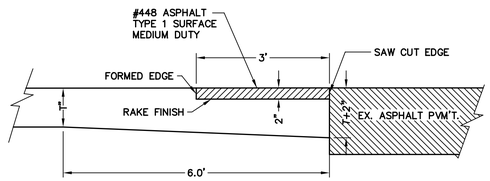
THE COUNTY ENGINEER OR HIS DULY-APPOINTED AGENT SHALL HAVE THE OPPORTUNITY TO INCREASE OR DECREASE ANY AGREED UPON REQUIREMENTS FOR COLD WEATHER PAVING BASED UPON CHANGING WEATHER CONDITIONS AND FORECASTS.



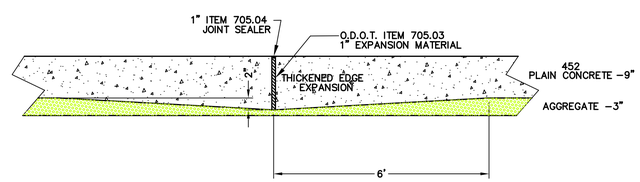
UNDERDRAIN DETAIL



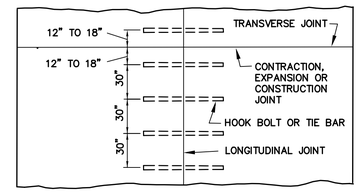
CONSTRUCTION JOINT



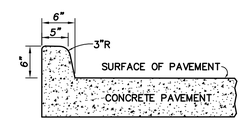
THICKENED CONCRETE EDGE TRANSITION



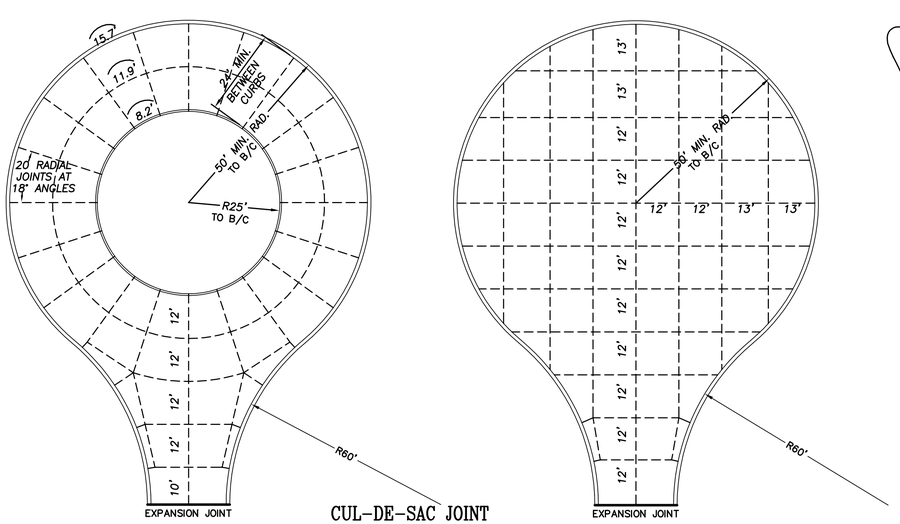
THICKENED EDGE EXPANSION JOINT



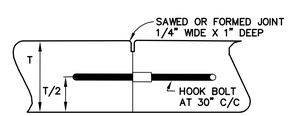
TIE BAR OR HOOK BOLT SPACING PLAN



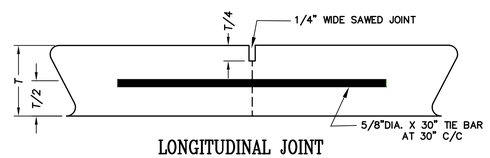
TYPE 2-A CURB DETAIL



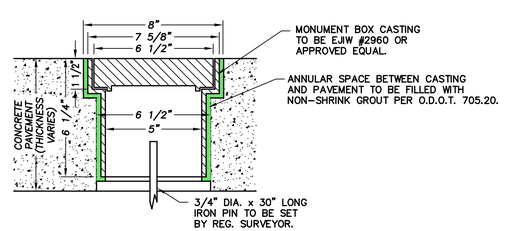
CUL-DE-SAC JOINT DETAILS



LONGITUDINAL JOINT
FOR SINGLE LANE POURING

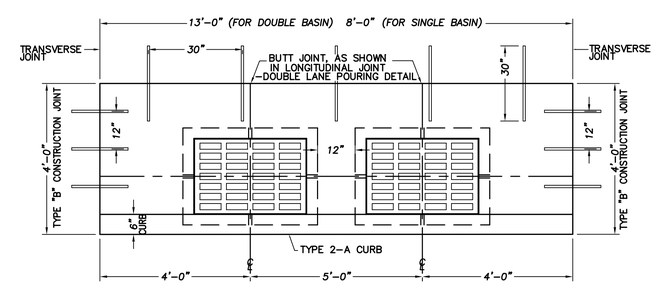


LONGITUDINAL JOINT
FOR DOUBLE LANE POURING



INSTALLATION:
1. CORE BOTH OPENINGS IN PAVEMENT.
2. REMOVE DEBRIS AND PREPARE CONCRETE FOR GROUT PER MANUFACTURER'S INSTRUCTIONS.
3. COAT PAVEMENT OPENING AND EXTERIOR OF CASTING WITH GROUT.
4. INSTALL CASTING AND FINISH FLUSH WITH EXISTING PAVEMENT.

MONUMENT BOX DETAIL



TYPICAL INLET BASIN BLOCKOUTS

NOTE: FRAME AND GRATE SHALL BE INSTALLED AS SHOWN ON THE STANDARD STORM SEWER DETAILS.

OFFICE OF THE
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MEDINA COUNTY ENGINEERS

PROJECT:

TYPICAL PAVEMENT SECTION
URBAN RESIDENTIAL

THE DESIGN ENGINEER WHOSE STAMP OR SIGNATURE IS AFFIXED TO THIS SET OF PLANS CERTIFIES UNDER THE PENALTY OF PERJURY THAT THE INFORMATION ON THIS SHEET HAS NOT BEEN MODIFIED FROM ITS ORIGINAL FORM UNLESS EXPRESSLY APPROVED BY THE MEDINA COUNTY ENGINEER'S OFFICE.

PROJECT No. –	FIELD BOOK No. –	DATE: SEPT. 2004	
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CHECKED BY: H.GERSPACHER	VERTICAL SCALE: AS NOTED		
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