

STREET FUNCTIONAL CLASSIFICATIONS

A. ARTERIAL

A GENERAL TERM DENOTING A HIGHWAY PRIMARILY FOR THROUGH TRAFFIC, CARRYING HEAVY LOADS AND LARGE VOLUMES OF TRAFFIC, USUALLY ON A CONTINUOUS ROUTE.

B. COLLECTOR

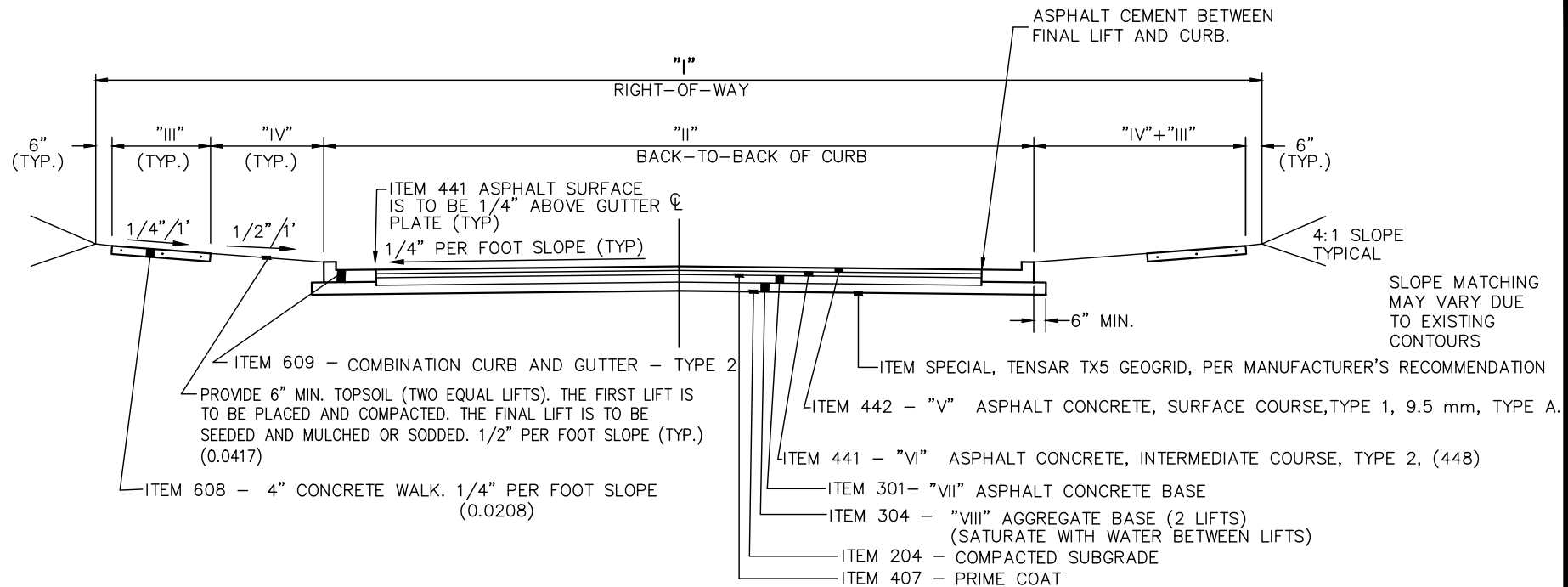
A THOROUGHFARE, WHETHER WITHIN A RESIDENTIAL, INDUSTRIAL, COMMERCIAL OR OTHER TYPE OF DEVELOPMENT, WHICH PRIMARILY CARRIES TRAFFIC FROM LOCAL STREETS TO ARTERIAL STREETS OR TO OTHER COLLECTOR STREETS INCLUDING THE PRINCIPAL ENTRANCE AND CIRCULATION ROUTES WITHIN RESIDENTIAL SUBDIVISIONS.

C. LOCAL

A STREET DESIGNED TO PROVIDE ACCESS TO ABUTTING PROPERTY AND HAS NO THROUGH TRAFFIC. IE. CUL DE SAC.

STREET FUNCTIONAL CLASSIFICATION	RIGHT-OF-WAY WIDTH (MIN.)	BACK-TO-BACK CURB (MIN.)
	(L.F.)	(L.F.)
ARTERIAL	*	*
COLLECTOR - RES.	60	36
INDUSTRIAL AND COMMERCIAL	60	37
LOCAL	50	31

* SEE DESIGN CRITERIA FOR PROPER DESIGN.



NOTES

A. ALL WORK TO CONFORM TO ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS LATEST REVISION UNLESS OTHERWISE SPECIFIED.

B. ITEM 407 TACK COAT, SHALL BE REQUIRED WHEN 10 DAYS HAVE ELAPSED BETWEEN ASPHALT PAVEMENT LIFTS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER. APPLICATION RATE IS 0.06 GALLON PER SQUARE YARD.

C. NO CONCRETE PAVEMENT WILL BE ACCEPTED.

D. SIDEWALKS NOT REQUIRED IN INDUSTRIAL ZONING.

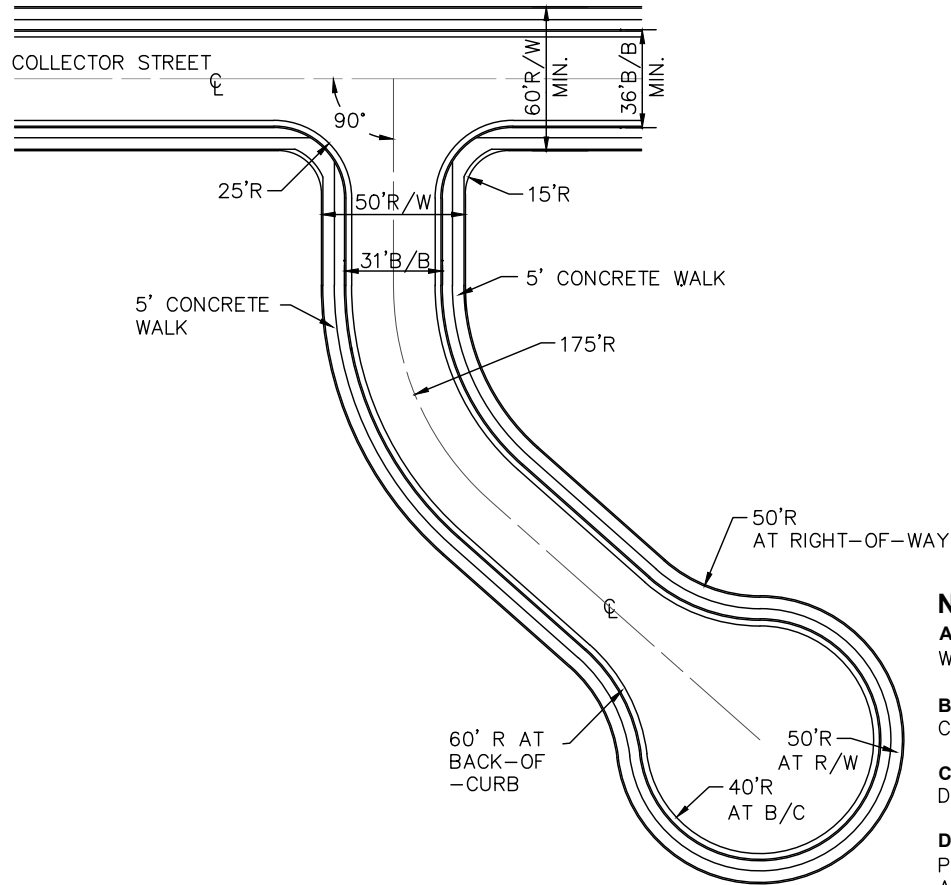
E. ALL BUTT JOINTS SHALL BE SEALED WITH PG 64-22 WITHIN 24 HOURS AFTER PLACEMENT OF ITEM 441.

F. IN AREAS WITH HIGH POTENTIAL OF PUSHING, SHOVING OR HEAVING, USE ITEM 442 ASPHALT CONCRETE SURFACE COURSE TYPE A, PG. 70-22. IN SMALL QUANTITY AREAS USE TYPE 1, PG 64-22 WITH GILSONITE ADDITIVE.

STANDARD DIMENSIONS

ITEM	DESCRIPTION	ARTERIAL	INDUSTRIAL & COMMERCIAL	COLLECTOR RESIDENTIAL	LOCAL
I	RIGHT-OF-WAY	*	60'	60'	50'
II	B\B CURB	*	37'	36'	31'
III	SIDEWALK WIDTH	5'	5'	5'	5'
IV	CURB LAWN WIDTH	6'	6'	6.5'	4'
V	ITEM 441	1-1/4"	1-1/4"	1-1/2"	1-1/2"
VI	ITEM 441	1-3/4"	1-3/4"	2-1/2"	2-1/2"
VII	ITEM 301	6"	6"	-	-
VIII	ITEM 304	1 - 9" LIFT	1 - 8" LIFT	1st LIFT - 8" 2nd LIFT - 4"	1st LIFT - 8" 2nd LIFT - 4"

TYPICAL STREET AND CUL-DE-SAC PLAN

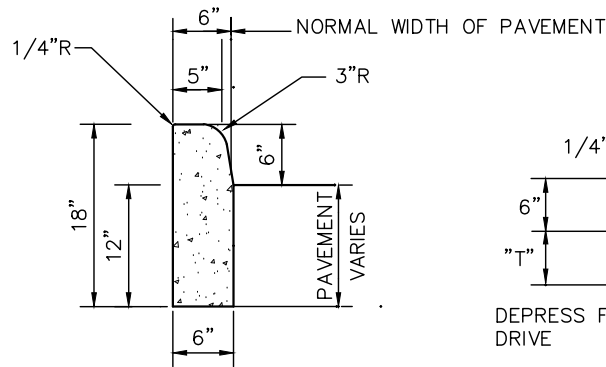


STREET DESIGN STANDARDS

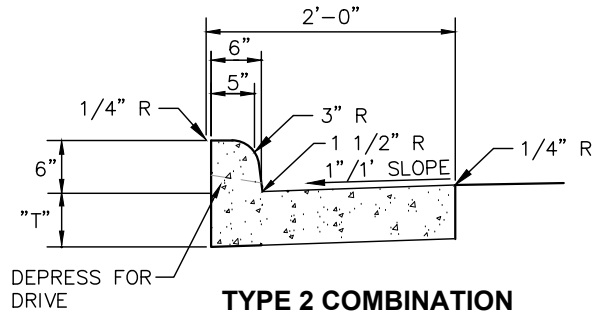
	25 mph LOCAL (THRU STREETS)	35 mph COLLECTOR	45 mph ARTERIAL
MINIMUM CENTERLINE GRADES	.50%	.50%	.50%
MAXIMUM CENTERLINE GRADES	10%	7%	4%
MINIMUM LENGTH OF VERTICAL CURVE (SEE NOTE C).	25FT.	50FT.	100FT.
MINIMUM CENTERLINE RADIUS	250FT.	400FT.	600FT.
MINIMUM LENGTH TANGENT BETWEEN CURVES	50FT.	50FT.	100FT.
MINIMUM BACK-OF-CURB RADIUS	25FT.	25FT.	50FT.
MINIMUM HORIZONTAL VISIBILITY	200FT.	300FT.	500FT.
MINIMUM STOPPING SIGHT DISTANCE (MEASURED FROM 3.5' EYE-LEVEL TO 6" OBJECT HEIGHT)	200FT.	300FT.	500FT.
MAXIMUM CENTERLINE GRADE WITHIN 100' OF AN INTERSECTION	3%	3%	3%
RIGHT-OF-WAY WIDTH	50FT.	60FT.	60FT.
MINIMUM PAVEMENT WIDTH BACK-TO-BACK OF CURB	32FT.	40FT.	45FT.

NOTES

- THESE ARE MINIMUM DESIGN STANDARDS AND MAY BE REQUIRED TO BE INCREASED TO COMPLY WITH THE VILLAGE'S OFFICIAL THOROUGHFARE PLAN.
- THE MAXIMUM LENGTH FOR CUL-DE-SAC STREET SHALL BE 600' CENTER-OF-STREET TO CENTER OF CUL-DE-SAC.
- MINIMUM LENGTH OF VERTICAL CURVE CAN BE REDUCED OR ELIMINATED TO ALLOW FOR PROPER DRAINAGE, WITH APPROVAL OF THE VILLAGE.
- STREETS SHALL INTERSECT ONE ANOTHER AT AN ANGLE AS NEAR TO A RIGHT ANGLE AS POSSIBLE. STREET INTERSECTIONS SHALL BE ROUNDED WITH A MINIMUM RADIUS OF 25' MEASURED AT THE BACK OF CURBS WHEN THE SAID INTERSECTION OCCURS AT RIGHT ANGLES. IF AN INTERSECTION OCCURS AT AN ANGLE OTHER THAN RIGHT ANGLE, IT SHALL BE ROUNDED WITH A CURVE OF A RADIUS ACCEPTABLE TO THE COMMISSION.
- MULTIPLE INTERSECTIONS INVOLVING JUNCTIONS OF MORE THAN 2 STREETS SHALL BE AVOIDED.
- FOUR-WAY INTERSECTIONS OF LOCAL STREETS SHOULD BE AVOIDED AN THREE-WAY OR T-INTERSECTIONS SHOULD BE ENCOURAGED WHEREVER POSSIBLE.
- FOUR-WAY INTERSECTIONS SHOULD BE ENCOURAGED WHENEVER INVOLVING A COLLECTOR AND/OR ARTERIAL STREET.

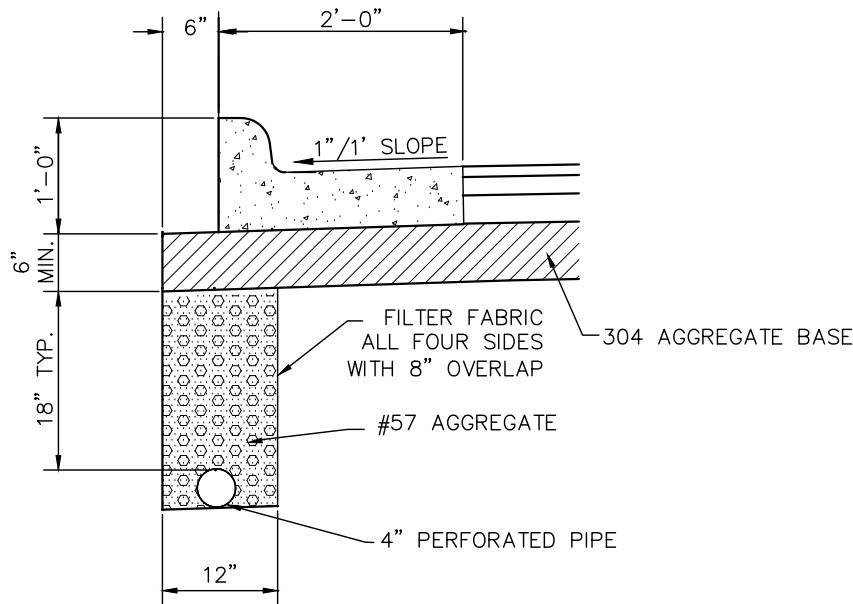


**TYPE 6
BARRIER CURB**



**TYPE 2 COMBINATION
CURB AND GUTTER**

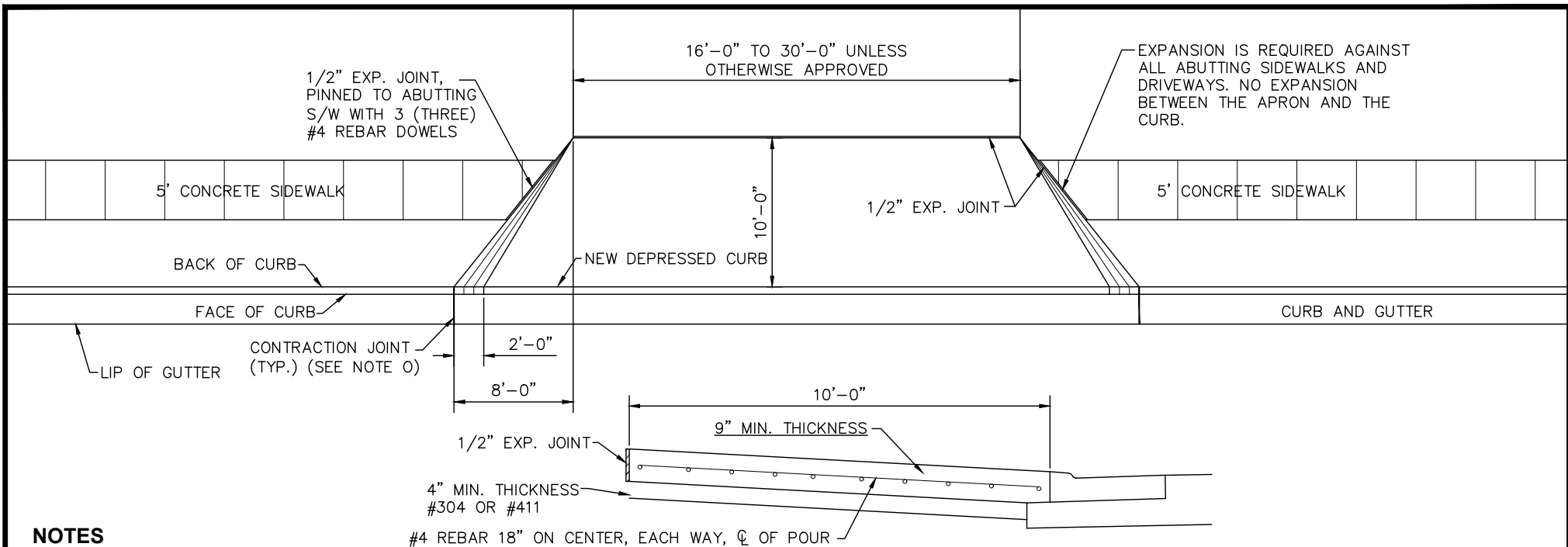
T=6" LOCAL AND COLLECTOR
T=9" COMMERCIAL, INDUSTRIAL,
AND ARTERIAL



4" SHALLOW PIPE UNDERDRAIN DETAIL
(ONLY AS REQUIRED BY THE VILLAGE)

NOTES

- A. CONCRETE AND WORK SHALL MEET THE REQUIREMENT SET FORTH IN ODOT ITEM 609 CURBING. A PERMIT FROM THE VILLAGE FOR ALL CURB INSTALLATION IS REQUIRED PRIOR TO THE START OF ANY RELATED WORK. VILLAGE INSPECTION OF FORMS IS REQUIRED PRIOR TO POURING CONCRETE AND AFTER CONCRETE FINISHING IS COMPLETE.
- B. CURBING SHALL HAVE CONTRACTION JOINTS EVERY 10'.
- C. MINIMUM OF 6" OF ODOT 304 SHALL BE PLACED UNDER CURBING.
- D. CURBING SHALL BE BACKFILLED IMMEDIATELY AFTER FORMS ARE REMOVED OR AS SOON AS PRACTICAL WHEN SLIP FORMING PRIOR TO OTHER CONSTRUCTION OPERATIONS.
- E. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.
- F. APPLY SUPER DIAMOND CLEAR CURING COMPOUND, OR APPROVED EQUIVALENT PER MANUFACTURER'S RECOMMENDATION ON ALL SURFACES INCLUDING BACK IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHOD OR TYPE OF CURING COMPOUND MUST BE PREAPPROVED.
- G. CONCRETE SHALL BE ODOT CLASS QC MISC. (CEMENTITIOUS CONTENT ONLY—NO POZZOLAN MATERIAL).
- H. MINIMUM TYPE AND GRADE OF CURB SHALL BE DETERMINED BY THE VILLAGE.
- I. UNLESS OTHERWISE SPECIFIED BY THE VILLAGE, 6" OF 304 AGGREGATE SHALL BE PLACED UNDER CURBING AND EXTEND 12" BEHIND BACK OF CURB.
- J. CURBING SHALL BE BACKFILLED IMMEDIATELY AFTER FORMS ARE REMOVED.
- K. JOINT LOCATIONS:
CONTRACTION JOINTS EVERY 10'
EXPANSION JOINTS EVERY 100' (OR LESS AS DETERMINED BY THE VILLAGE), AT INTERSECTIONS, AND WHERE CURBING IS TO ABUT EXISTING CONCRETE WORK.
- L. EXPANSION JOINTS SHALL BE PROFLEX VINYL EXPANSION JOINT AS MANUFACTURED BY OSCODA PLASTICS, INC. 1-800-544-9538, MEETING ASTM D-1752 AND AASHTO 153-98.
- M. ALL UNDERGROUND UTILITY LATERALS SHALL BE MARKED IN THE TOP OF CURB WHILE IT IS BEING POURED AS FOLLOWS (UNLESS OTHERWISE DIRECTED BY THE VILLAGE):
"W" — WATER SERVICE
"SD" — STORM LATERAL
"S" — SANITARY LATERAL



NOTES

- A. DRIVE APPROACHES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 452 AND 499 CAST IN PLACE CONCRETE. ALL DRIVEWAY INSTALLATIONS REQUIRE A PERMIT FROM THE VILLAGE PRIOR TO ANY WORK START.
- B. DRIVE APPROACHES SHALL NOT BE POURED MONOLITHICALLY WITH CURB, UNLESS APPROVED BY THE VILLAGE.
- C. MAXIMUM JOINT SPACING SHALL BE 10' LONGITUDINALLY AND TRANSVERSELY WITH JOINTS AT TAPERS.
- D. DRIVE APPROACHES SHALL BE KEYED AT ALL CONSTRUCTION JOINTS.
- E. EXPANSION JOINTS SHALL BE REFLECTIX EXP04050 EXPANSION JOINT AS MANUFACTURED BY REFLECTIX, INC., 1-800-879-3645, PENDING VILLAGE APPROVAL PRIOR TO POUR.
- F. DRIVE APPROACHES TO BE POURED ON A MINIMUM OF 4" OF COMPACTED #304 OR #411. VILLAGE INSPECTION OF FORM WORK IS REQUIRED PRIOR TO POURING CONCRETE AS WELL AS POST POUR.
- G. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES. TEXTURE SHALL BE A MEDIUM BROOM WITH TOOL FINISH.

H. WHERE CURB AND GUTTER HAS NOT BEEN PROPERLY DROPPED AT DRIVE APPROACHES, THE CURB SHALL BE ENTIRELY REMOVED AND REPLACED BY THE CONTRACTOR OR OWNER AS DIRECTED BY THE VILLAGE.

I. WHERE ASPHALTIC CONCRETE PAVEMENT IS DISTURBED, THE ASPHALT SHALL BE REPLACED AS DIRECTED BY THE VILLAGE.

J. JOINTS SHALL BE CLEANED AND EDGED BY A 1/4" RADIUS EDGER. LONGITUDINAL JOINTS SHALL BE AS DIRECTED BY THE VILLAGE. EXPANSION JOINTS SHALL BE OF SUCH DIMENSIONS AS SHOWN ON STANDARD DRAWINGS FOR CONSTRUCTION JOINTS.

K. MINIMUM WIDTH FOR ONE-WAY TRAFFIC IS 16'-0". MINIMUM WIDTH FOR TWO-WAY TRAFFIC IS 25'-0". MAXIMUM WIDTH IS 30'-0" UNLESS OTHERWISE APPROVED BY THE VILLAGE.

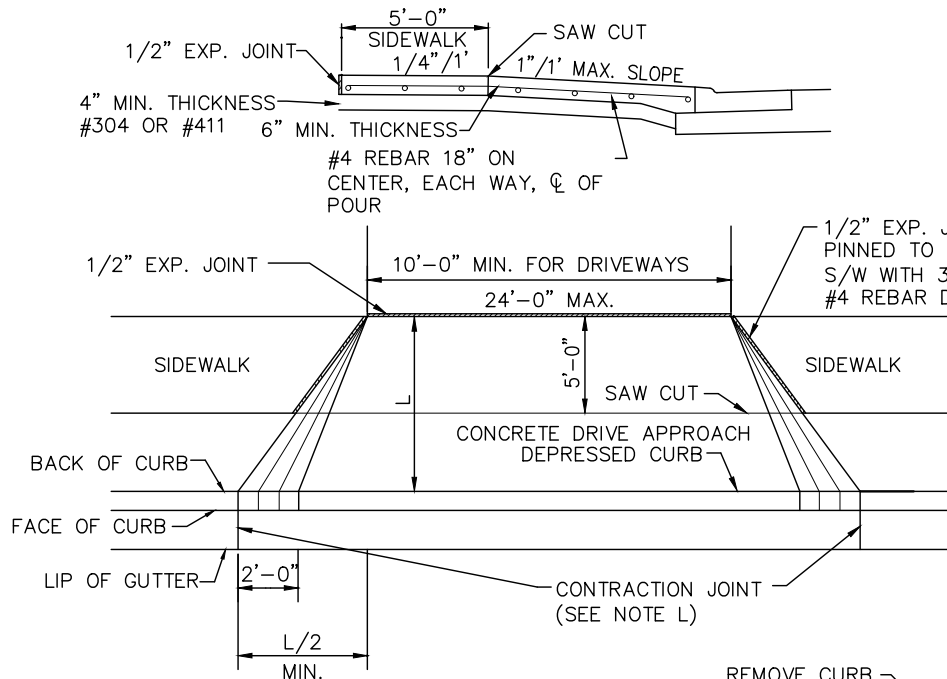
L. THIS STANDARD DRAWING IS FOR GUIDELINE PURPOSES. EACH INDIVIDUAL DRIVE WILL NEED TO BE DESIGNED AND SUBMITTED TO THE VILLAGE FOR REVIEW AND APPROVAL.

M. CONCRETE SHALL BE ODOT CLASS QC MISC. (CEMENTITIOUS CONTENT ONLY-NO POZZOLAN MATERIAL).

N. CURB IS TO BE REMOVED AND REPLACED DURING DRIVEWAY CONSTRUCTION. JOINTS BETWEEN EXISTING AND NEW CURB ARE TO BE 1/2" EXPANSION JOINTS.

O. APPLY SUPER DIAMOND CLEAR CURING COMPOUND ON ALL SURFACES.

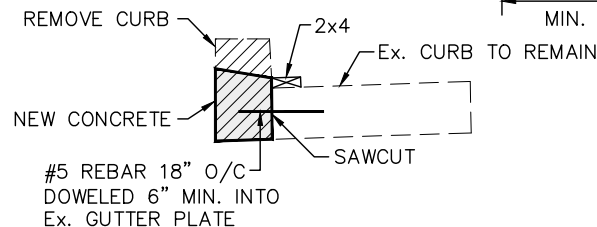
P. REBAR CHAIRS SHALL BE USED TO HOLD THE REBAR UP IN THE PROPER POSITION PRIOR TO THE POUR. LIFTING THE REBAR WHILE POURING IS NOT ACCEPTABLE.



FOR CURB LAWNS OF LESS THAN 6'-0"

NOTES

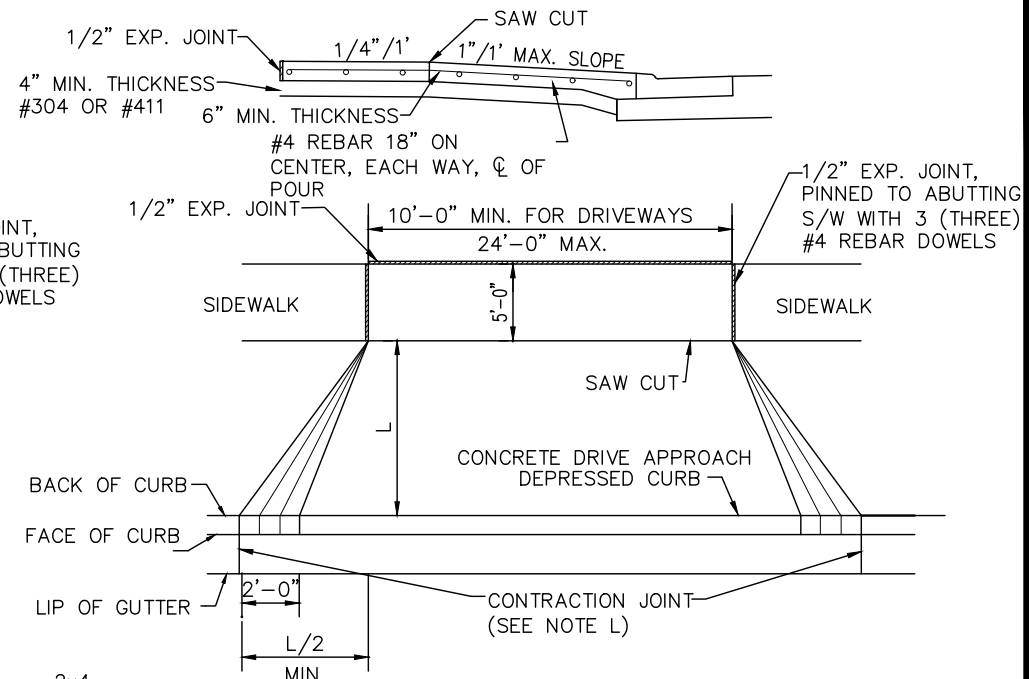
- A. DRIVE APPROACHES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 452 AND 499 CAST-IN-PLACE CONCRETE. ALL DRIVEWAY INSTALLATIONS REQUIRE A PERMIT FROM THE VILLAGE PRIOR TO ANY WORK START.
- B. DRIVE APPROACHES SHALL NOT BE POURED MONOLITHICLY WITH CURB, UNLESS APPROVED BY THE VILLAGE.
- C. MAXIMUM JOINT SPACING SHALL BE 10' LONGITUDINALLY, TRANSVERSELY AND AT TAPERS.
- D. EXPANSION JOINTS SHALL BE REFLECTIX EXP04050 EXPANSION JOINT AS MANUFACTURED BY REFLECTIX, INC., 1-800-879-3645, PENDING VILLAGE APPROVAL PRIOR TO POUR.
- E. DRIVE APPROACHES TO BE POURED ON A MINIMUM OF 4" OF COMPACTED #304 OR #411. VILLAGE INSPECTION OF FORM WORK IS REQUIRED PRIOR TO POURING CONCRETE AS WELL AS POST POUR.



F. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES. TEXTURE SHALL BE A MEDIUM BROOM WITH TOOL FINISH.

G. WHERE CURB AND GUTTER HAS NOT BEEN PROPERLY DROPPED AT DRIVE APPROACHES, THE CURB SHALL BE ENTIRELY REMOVED AND REPLACED BY THE CONTRACTOR OR OWNER AS DIRECTED BY THE MUNICIPALITY OR THEY CAN CUT THE BACK OF CURB OFF AND INSTALL NEW CURB BY PINNING IT TO THE GUTTER PLATE AS PER THE DETAIL ABOVE AND PER VILLAGE APPROVAL.

H. JOINTS SHALL BE CLEANED AND EDGED BY A 1/4" RADIUS EDGER. LONGITUDINAL JOINTS SHALL BE AS DIRECTED BY THE VILLAGE. EXPANSION JOINTS SHALL BE OF SUCH DIMENSIONS AS SHOWN ON STANDARD DRAWINGS FOR CONSTRUCTION JOINTS.



FOR CURB LAWNS OF 6'-0" OR MORE

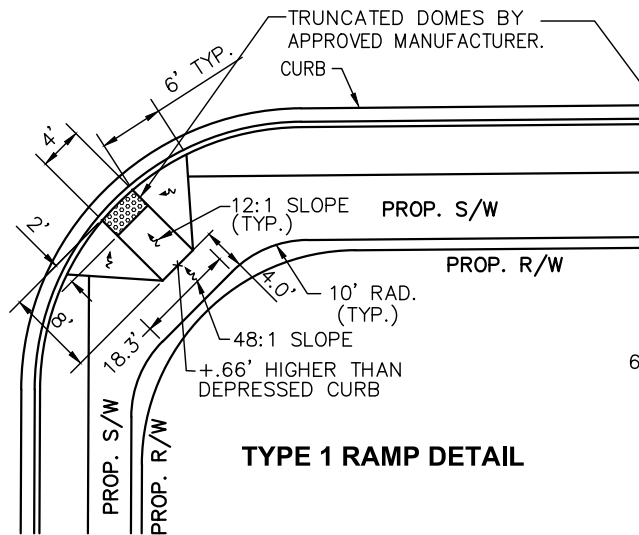
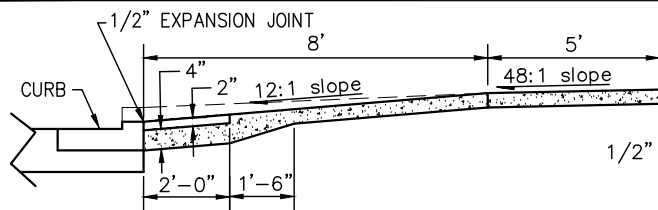
I. WHERE ASPHALTIC CONCRETE PAVEMENT IS DISTURBED, THE ASPHALT SHALL BE REPLACED AS DIRECTED BY THE VILLAGE.

J. CONCRETE SHALL BE ODOT CLASS QC MISC. (CEMENTITIOUS CONTENT ONLY-NO POZZOLAN MATERIAL). FIBER MESH IS NOT ACCEPTABLE.

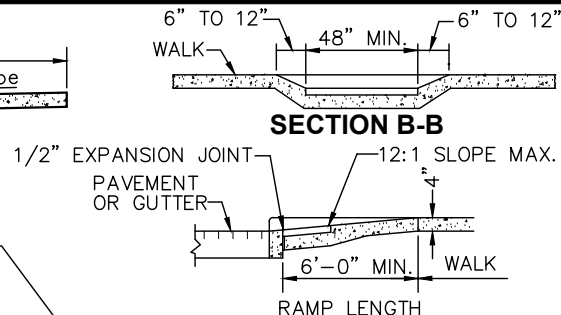
K. WHEN CURB IS REMOVED AND REPLACED DURING DRIVEWAY CONSTRUCTION, JOINTS BETWEEN EXISTING AND NEW CURB ARE TO BE 1/2" EXPANSION JOINTS.

L. REBAR CHAIRS SHALL BE USED TO HOLD THE REBAR UP IN THE PROPER POSITION PRIOR TO THE POUR. LIFTING THE REBAR WHILE POURING IS NOT ACCEPTABLE.

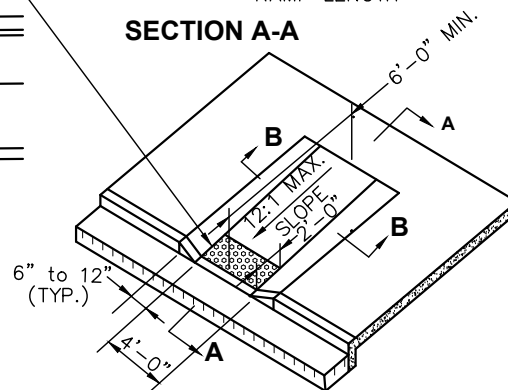
C. DRIVE APPROACHES TO BE POURED ON A MINIMUM OF 4" OF COMPACTED #304 OR #411. VILLAGE INSPECTION OF FORM WORK IS REQUIRED PRIOR TO POURING CONCRETE AS WELL AS POST POUR.



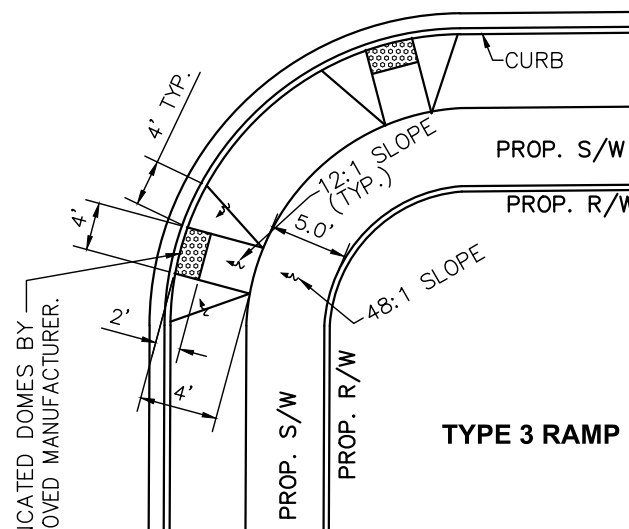
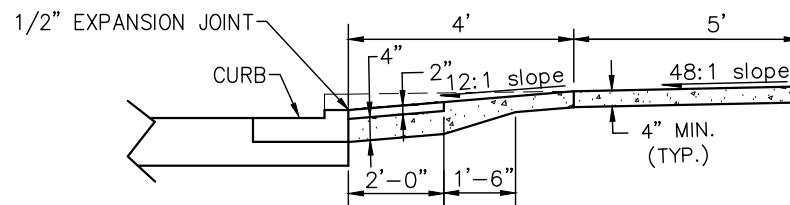
TYPE 1 RAMP DETAIL



SECTION A-A



TYPE 2 RAMP DETAIL



TYPE 3 RAMP DETAIL

NOTES

- A. VILLAGE TO SPECIFY TYPE 1, 2, OR 3 CURB RAMP.
- B. ANY COMBINATION OF SIDE SLOPES ON OPPOSITE SIDES OF A RAMP MAY BE USED TO BEST FIT THE SITE CONDITIONS.
- C. THE MINIMUM RAMP LENGTH IS 6' FROM BACK OF A 6" CURB AND MAY BE INCREASED WHERE FEASIBLE TO OBTAIN A FLATTER RAMP SLOPE OR TO BETTER BLEND WITH THE WALK CONFIGURATION.
- D. WALK THICKNESS IN THE RAMP SLOPES SHALL BE 4" MINIMUM OR THICKER AS NECESSARY TO MATCH ADJACENT WALK THICKNESS.
- E. CURB RAMPS SHALL MEET AND BE FINISHED TO AMERICANS WITH DISABILITIES ACT (A.D.A.) STANDARDS.
- F. TEXTURE OF CONCRETE SURFACE SHALL BE OBTAINED BY COURSE BROOMING TRAVERSE TO THE RAMP SLOPES AND SHALL BE ROUGHER THAN ADJACENT WALK.
- G. CURB RAMPS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 608 UNLESS OTHERWISE SPECIFIED WITHIN.
- H. CONCRETE SHALL BE ODOT CLASS QC MISC. (CEMENTITIOUS CONTENT ONLY—NO POZZOLAN MATERIAL). FIBER MESH IS NOT ACCEPTABLE.
- I. FOR RECONSTRUCTION JOBS, THE CURB RAMPS WILL HAVE TO BE ADDRESSED BASED ON THE EXISTING CONDITIONS.

J. TRUNCATED DOME SPECIFICATIONS:
INSTALL DETECTABLE WARNINGS (TRUNCATED DOMES) FOR A DISTANCE OF 24" FROM THE BACK OF CURB FOR THE ENTIRE WIDTH OF THE RAMP OPENING WHERE IT IS FLUSH WITH THE PAVEMENT.

THE TRUNCATED DOMES SHALL BE 24"x48" PANELS, UNLESS OTHERWISE APPROVED BY THE VILLAGE, MANUFACTURED BY DETECTABLE WARNING SYSTEMS, INC. OR EQUIVALENT:

DETECTABLE WARNING SYSTEMS, INC.
6435 JOSHUA TREE AVENUE
ORANGE, CA 92867.
866-999-7452
WWW.DETECTABLE-WARNING.COM

THE PANELS SHALL BE GLASS FIBER POLYMER CERAMIC CEMENT PANELS MOLDED IN THE SQUARE PATTERN. COLOR OF THE PANEL SHALL BE "BRICK RED" OR APPROVED BY THE VILLAGE PRIOR TO ORDERING.

TRUNCATED DOMES BY
APPROVED MANUFACTURER.

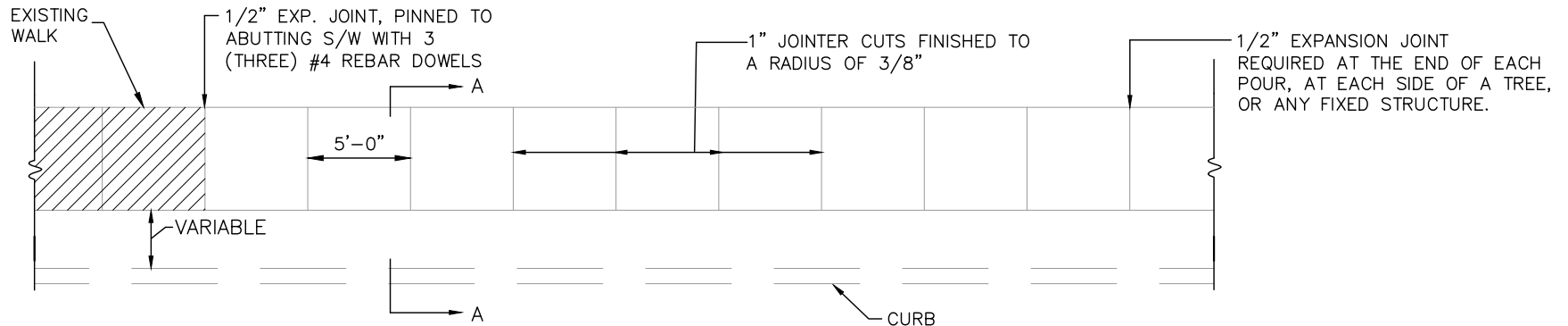
K. CURB RAMPS TO BE POURED ON COMPACTED UNDISTURBED EARTH OR IF OVER EXCAVATED BY THE CONTRACTOR THE CURB RAMP SHALL BE POURED ON 4" MINIMUM COMPACTED #304 OR #411. VILLAGE INSPECTION OF FORM WORK IS REQUIRED PRIOR TO POURING CONCRETE, AS WELL AS POST POUR.

L. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES. TEXTURE SHALL BE A MEDIUM BROOM WITH TOOL FINISH

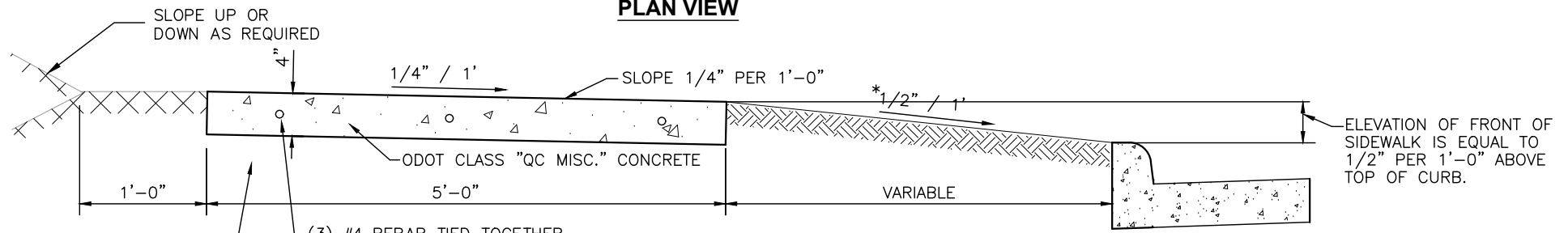
M. APPLY SUPER DIAMOND CLEAR CURING COMPOUND ON ALL SURFACES INCLUDING BACK IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHOD OR TYPE OF CURING COMPOUND MUST BE PRE-APPROVED.

N. FOR ADDITIONAL CURB RAMPS TYPES SEE ODOT STANDARD DRAWING BP-7.1

O. ALL SIDEWALK INSTALLATIONS REQUIRE A PERMIT FROM THE VILLAGE PRIOR TO ANY WORK START.



PLAN VIEW



SECTION A-A

* UNLESS OTHERWISE SHOWN ON CROSS SECTIONS.

COMPACTED #304 OR #411
BEDDING ONLY IF OVER
EXCAVATED, SEE NOTE A.

(3) #4 REBAR TIED TOGETHER
CONTINUOUSLY AND DOWELED
INTO EACH DRIVE APRON.

SIDEWALK NOTES

A. WALK SHALL BE POURED ON A MINIMUM OF 4" OF COMPACTED #304 OR #411, AND IT WILL BE AT THE COST OF THE CONTRACTOR AND INCIDENTAL TO ITEM 608 4" CONCRETE WALK. VILLAGE INSPECTION OF FORMWORK IS REQUIRED PRIOR TO POURING CONCRETE AS WELL AS POST POUR.

B. CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED IN THE PLANS. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS, WHERE INDICATED, AS FOLLOWS:

- a. GROOVED JOINTS: FORM CONTRACTION JOINTS AFTER INITIAL FLOATING BY GROOVING AND FINISHING EACH EDGE OF JOINT WITH GROOVER TOOL TO THE FOLLOWING RADIUS. REPEAT GROOVING OF CONTRACTION JOINTS AFTER APPLYING SURFACE FINISHES. ELIMINATE GROOVER OVERFLOW SLURRY MARKS ON CONCRETE SURFACES. QUALITY WORK SHALL BE PERFORMED OR THE NEW SIDEWALK WILL BE REMOVED AND REDONE AT THE CONTRACTOR'S EXPENSE. RADIUS TO BE 1/4 INCH (6 MM).
- b. SAWED JOINTS WILL NOT BE PERMITTED.

C. EDGING: TOOL EDGES OF JOINTS IN CONCRETE AFTER INITIAL FLOATING WITH AN EDGING TOOL TO A RADIUS OF 1/4 INCH (6 MM). REPEAT TOOLING OF EDGES AFTER APPLYING SURFACE FINISHES. ("PICTURE-FRAME" EACH SECTION OF CONCRETE WALK.) ELIMINATE TOOL MARKS (OVERFLOW SLURRY) ON CONCRETE SURFACES.

D. PROVIDE BROOM FINISH TO ALL EXPOSED SURFACES. TEXTURE SHALL BE A MEDIUM BROOM WITH TOOL FINISH.

E. CONCRETE SHALL CONFORM TO ODOT ITEM 499 CONCRETE. CONCRETE WORK SHALL CONFORM TO ODOT ITEM 608, UNLESS OTHERWISE SPECIFIED WITHIN.

F. PROVIDE EDGING AROUND ALL EXPOSED SURFACES.

G. APPLY SUPER DIAMOND CLEAR CURING COMPOUND ON ALL SURFACES.

H. CONCRETE SHALL BE ODOT CLASS QC MISC. (CEMENTITIOUS CONTENT ONLY-NO POZZOLAN MATERIAL). FIBER MESH IS NOT ACCEPTABLE. ALL SIDEWALKS SHALL HAVE A MIN. THICKNESS OF 4" AND REINFORCED WITH (3) #4 REBAR TIED TOGETHER CONTINUOUSLY AND DOWELED INTO EACH DRIVE APRON.

I. EXPANSION JOINTS SHALL BE PROFLEX VINYL EXPANSION JOINT AS MANUFACTURED BY OSCODA PLASTICS, INC. 1-800-544-9538, MEETING ASTM D-1752 AND AASHTO 153-98 AND PLACED EVERY 100'.

J. ALL SIDEWALK INSTALLATIONS REQUIRE A PERMIT FROM THE VILLAGE PRIOR TO ANY WORK START.

EXAMPLE: 1/2 INCH TRIP HAZARD



ADJOINING BLOCKS OR PORTIONS THEREOF WHOSE EDGES DIFFER VERTICALLY BY MORE THAN 1/2 INCH.



EXAMPLE: DETERIORATION



ANY SIDEWALK THAT IS DETERIORATED OR SHOWS SURFACE SPALLING, LEAVING IT VERY ROUGH, UNSAFE, OR WITH AGGREGATE PROTRUDING.

EXAMPLE: ABRUPT SLOPE



BLOCKS, OR PORTION OF BLOCKS, THAT CAUSE AN ABRUPT CHANGE OF 1 INCH PER FOOT (OR MORE) IN ANY DIRECTION OF THE SIDEWALK.



EXAMPLE: PLATES, COVERS, ETC.



METAL OR OTHER PLATES, COVERS, OR GRATINGS THAT ARE NOT FLUSH (3/4 INCH OR MORE VERTICAL DIFFERENCE) WITH THE ADJOINING SIDEWALK SURFACE, ARE STRUCTURALLY UNSAFE, OR CAUSE A NUISANCE DUE TO SLIPPERY SURFACES ETC.

EXAMPLE: CRACKS



ANY SIDEWALK BLOCK (BASED ON 20 SQ. FT.) HAVING A CRACK OR CRACKS IN IT OF AT LEAST 3/4 INCH WIDE WITH A MINIMUM OF 4 LINEAL FEET IN ONE BLOCK. (VARIOUS SIZE BLOCKS WILL BE EVALUATED PROPORTIONALLY.)

PERMITS, INSPECTION, AND WORK RULES

A. NO PERSON SHALL TEAR UP OR DIG INTO ANY PUBLIC RIGHT-OF-WAY OR STREET FOR THE PURPOSE OF CONSTRUCTING OR REPAIRING THE SIDEWALK, CURBING, OR GUTTERS THEREON OR FOR ANY OTHER PURPOSE, WITHOUT HAVING FIRST OBTAINED A PERMIT FROM THE VILLAGE TO DO SO. ALL SIDEWALK REPLACEMENTS AND/OR NEWLY CONSTRUCTED SIDEWALKS REQUIRE A SIDEWALK PERMIT FORM THE VILLAGE. THE PERMIT SHALL INCLUDE TWO INSPECTIONS, A PRE-POUR INSPECTION FOR FORMS AND REBAR, AND A SECOND INSPECTION POST-POUR TO ENSURE PROPER CONCRETE FINISHING AND TO CLOSE THE SIDEWALK PERMIT.

B. THE CONTRACTOR MUST CALL THE VILLAGE FOR EACH INSPECTION AT LEAST THREE WORKING HOURS BEFORE HE PLANS TO POUR THE CONCRETE. THE CONTRACTOR OR HIS FOREMAN MUST BE ON THE JOB WHEN THE INSPECTOR ARRIVES. IF, BECAUSE OF WEATHER CONDITIONS OR FOR SOME OTHER REASON, IT WILL NOT BE POSSIBLE TO HAVE A PERSON ON THE JOB, THE CONTRACTOR IS REQUIRED TO CALL AND CANCEL THE INSPECTION.

C. THE CONTRACTOR IS CAUTIONED AGAINST ORDERING CONCRETE BEFORE THE INSPECTION IS MADE DUE TO POSSIBLE CORRECTION OF FORMS OR GRADE.

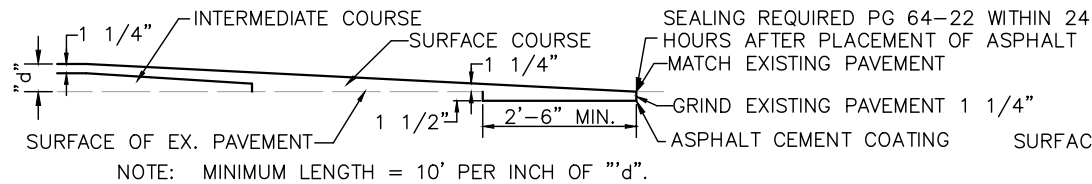
D. THE CONTRACTOR SHALL PROVIDE PROTECTION AND TRAFFIC CONTROL BARRICADES, LIGHTS, SIGNS, AND OTHER DEVICES AS HEREIN SPECIFIED TO PROVIDE WARNING AND PROTECTION FOR VEHICULAR TRAFFIC, PEDESTRIANS, AND THE WORK DURING THE REMOVAL, CONSTRUCTION AND CURING OF SIDEWALK, CURB AND GUTTER, AND DRIVEWAY APRONS.

E. THE CONTRACTOR WILL BE RESPONSIBLE FOR AN IMMEDIATE REMOVAL AND CLEANUP OF ALL EXCAVATED MATERIAL. NO EXCAVATED MATERIAL SHALL BE STORED ON THE PAVEMENT.

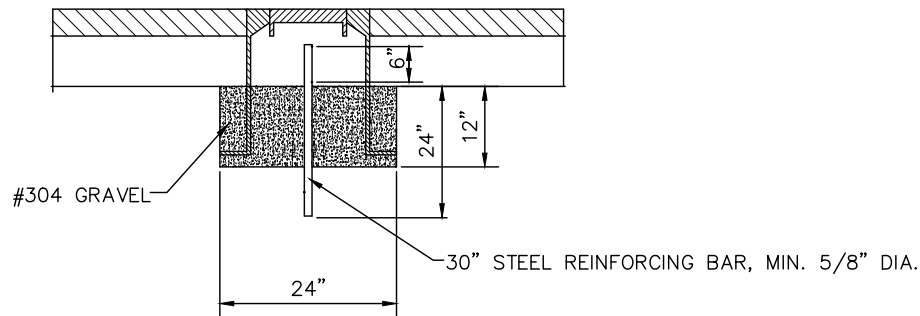
F. ALL CONTRACTORS INSTALLING NEW CURB ARE CAUTIONED THAT IT IS THEIR RESPONSIBILITY TO REPAIR THE STREET PER VILLAGE SPECIFICATIONS BEFORE REMOVING YOUR BARRICADES.

G. VILLAGE WILL PERFORM POST POUR INSPECTION. ANY AND ALL DEFICIENCIES MAY RESULT IN CONCRETE REPAIR OR REMOVAL.

H. FIBER MESH IS NOT ACCEPTABLE.



BUTT JOINT DETAIL



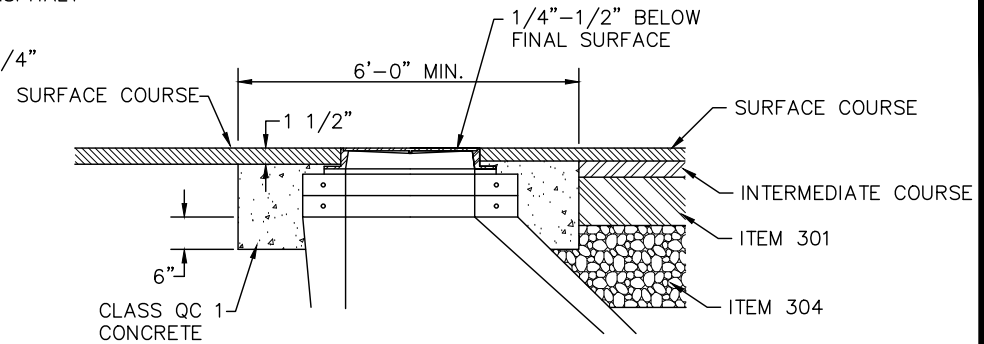
SURVEY MONUMENT DETAIL

NOTES

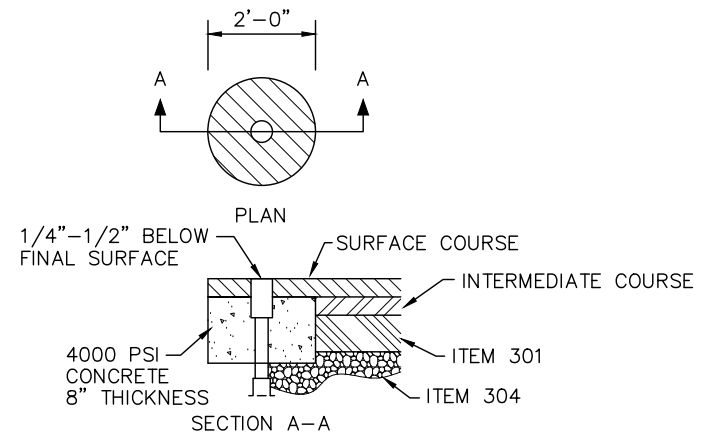
- MONUMENT BOXES SHALL BE SET AT ALL STREET INTERSECTIONS AND CENTER POINTS OF CUL-DE-SACS.
- MONUMENT BOXES SHALL BE SET PRIOR TO THE LAYING OF ODOT ITEM 448 SURFACE COURSE ASPHALT UNLESS OTHERWISE PREAPPROVED.
- MONUMENT ASSEMBLIES SHALL BE NEENAH R-1978-A2 OR EAST JORDAN 8375.
- MONUMENT BOXES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 623 UNLESS OTHERWISE SPECIFIED WITHIN.

MANHOLES ADJUSTED TO GRADE FOR OVERLAYS

- REFER TO PAGES 500-6, 500-7, 500-8 FOR THE MR. MANHOLE SYSTEM NOTES AND DETAILS.



TYPICAL CONSTRUCTION AROUND ALL MANHOLES EXISTING AND PROPOSED



TYPICAL CONSTRUCTION AROUND ALL VALVE BOXES EXISTING AND PROPOSED

NOTES:

- PRECAST CONCRETE ADJUSTING RINGS-ENCASE WITH CONCRETE 6" DOWN FROM BARREL TOP AND UP TO WITHIN 2" OF SURFACE AND EXTENSIONS.
- KEEP ALL MANHOLES AND VALVES AT STONE GRADE OR LOWER FOR INSTALLATION OF ITEMS 301 AND ITEM 441 INTERMEDIATE COURSE. THEN AFTER ITEM 301 AND ITEM 441 INTERMEDIATE COURSE ARE INSTALLED, RAISE TO 1/4" BELOW FINAL SURFACE PRIOR TO ITEM 441 SURFACE COURSE AS SHOWN.

GENERAL

A. ALL STREET CONSTRUCTION SHALL BE IN ACCORDANCE WITH ODOT SPECIFICATIONS, LATEST REVISION.

PAVEMENT REPLACEMENT

A. WITHIN 24 HOURS AFTER PLACEMENT OF BACKFILL IN EXISTING STREETS, A TEMPORARY PAVEMENT SHALL BE INSTALLED AND THE STREET OPENED. TEMPORARY PAVEMENT SHALL CONSIST OF 8" OF COMPACTED ODOT SPECIFICATION 411 BASE AND A SURFACE COURSE OF ODOT SPECIFICATION 405 OR 409. THE SURFACE SHALL BE KEPT FLUSH WITH THE EXISTING STREET.

B. PERMANENT PAVEMENT REPLACEMENT SHALL EQUAL OR EXCEED THE EXISTING PAVEMENT. (MINIMUM PAVEMENT COMPOSITION, SEE PAGE 300-2.)

C. ANY SETTLEMENT OF A TRENCH CAUSING A DEPRESSION SHALL BE REFILLED AS REQUIRED BY THE VILLAGE AT THE CONTRACTOR'S EXPENSE. THIS PROVISION APPLIES FOR A ONE-YEAR PERIOD AFTER WORK IS ACCEPTED BY THE VILLAGE.

D. ALL TEMPORARY PAVEMENT AND SIDEWALK SHALL BE MAINTAINED BY THE CONTRACTOR OR DEVELOPER AT HIS OWN EXPENSE IN A SUITABLE AND SAFE CONDITION FOR TRAFFIC UNTIL PERMANENT REPLACEMENT IS MADE OR THE PROJECT IS FINALLY ACCEPTED BY THE VILLAGE. COLD PATCH ALL TRENCHES TO 1" TO 1-1/2" WHEN FINAL ASPHALT WILL NOT BE REPLACED WITHIN 24 HOURS.

TRAFFIC CONTROL

A. THE CONTRACTOR SHALL MAINTAIN TRAFFIC CONTROL AT ALL TIMES WITH THE PROPER BARRICADES AS PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THESE CONTROL DEVICES SHALL BE IN PLACE PRIOR TO ANY WORK COMMENCING.

B. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE VILLAGE.

CURB STAKING AND ROADWAY

A. LINE AND GRADE EVERY 25' ON A CONVENIENT OFFSET WITH TACKED HUBS.

PAVEMENT (ASPHALT)

A. THE CONTRACTOR SHALL PROVIDE THE VILLAGE WITH A COPY OF THE NORMAL (MEDIUM TRAFFIC) ODOT 441 JOB MIX FORMULA FOR EACH PLANT THAT PROVIDES HOT MIXED ASPHALT TO THIS PROJECT. ALL MIXES SHALL FOLLOW ODOT JOB MIX FORMULA WITH THE EXCEPTION THAT THE BITUMEN CONTENT SHALL BE 0.2% HIGHER. SECTION 401.02 COMPOSITION OF THE CURRENT ODOT SPECIFICATIONS SHALL BE USED FOR ACCEPTANCE BASED ON THE INCREASED BITUMEN. A 448 OR 446 JOB MIX FORMULA WILL NOT BE ACCEPTABLE. RECYCLED ASPHALT SHALL NOT EXCEED 15% OF ANY 402 MIX PRODUCED. NO RECYCLED ASPHALT MAY BE USED IN THE ITEM 441 SURFACE COURSE.

B. THREE-WHEEL STEEL ROLLER SHALL BE USED FOR INITIAL BREAKDOWN ON ALL PROJECTS.

C. ALL WORK SHALL ADHERE TO ODOT'S LATEST REVISIONS AND TO THE VILLAGE SPECIFICATIONS WHICHEVER IS MORE STRINGENT SHALL PREVAIL UNLESS OTHERWISE APPROVED.

D. PATCHED AREAS SHALL BE SEALED ON THE PERIMETER OF THE PATCH WITH ASPHALT CEMENT.

E. ALL UTILITY ADJUSTMENTS -- MANHOLE, WATER VALVES, ETC., -- SHALL BE RAISED TO FINISHED GRADE BEFORE THE FINAL ASPHALT COURSE IS LAID BY THE CONTRACTOR OR DEVELOPER.

F. ASPHALT CEMENT SHALL BE USED NEXT TO THE LIP OF GUTTER PRIOR TO THE FINAL ASPHALT LIFT BEING PLACED. (SS-1 TACK OR PG64-22 SEAL.)

G. TACK COAT SHALL BE APPLIED PRIOR TO THE PLACEMENT OF THE FINAL LIFT OF ASPHALT IF THE EXISTING ASPHALT LIFT IS DIRTY OR AFTER 3 DAYS UNLESS OTHERWISE APPROVED. TEMPERATURE MUST BE 50°F OR HIGHER.

H. NO ASPHALT SHALL BE PLACED OVER EXCAVATED TRENCHES UNLESS TRENCHES HAVE BEEN COMPACTED AS PER VILLAGE SPECIFICATIONS.

I. NO ASPHALT SHALL BE LAID UNLESS THE VILLAGE IS GIVEN PRIOR NOTICE AND THE AMBIENT TEMPERATURE IS 50°F OR GREATER UNLESS OTHERWISE APPROVED.

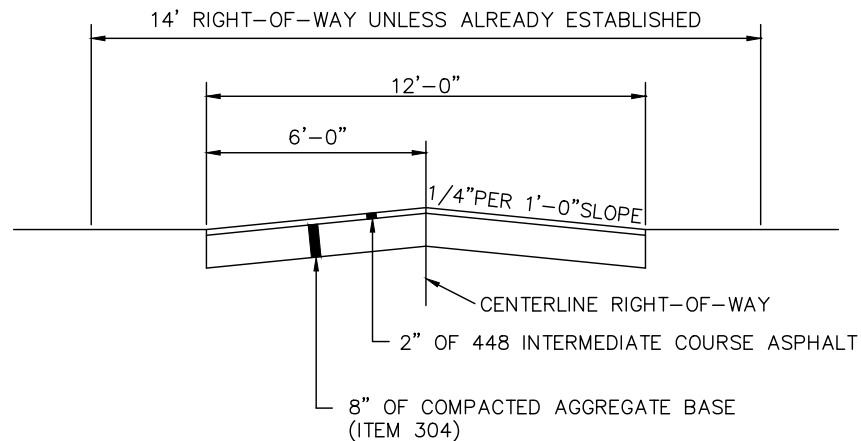
K. FINAL LIFT OF ASPHALT SHALL BE FINISHED TO 1/4" ABOVE THE LIP OF GUTTER.

L. TEMPERATURES FOR BREAKDOWN ROLLING SHALL BE 260°F PLUS 15°F AND FOR FINAL ROLLING 175°F PLUS 15°F.

M. ASPHALT CEMENT SHALL BE USED ON ALL JOINTS AND FEATHERED SURFACES PRIOR TO PLACEMENT OF THE NEXT COURSE OF ASPHALT TO THE ABUTTING JOINT, UNLESS OTHERWISE APPROVED.

N. 325°F IS THE MAXIMUM TEMPERATURE ASPHALT MATERIAL IS TO BE MIXED.

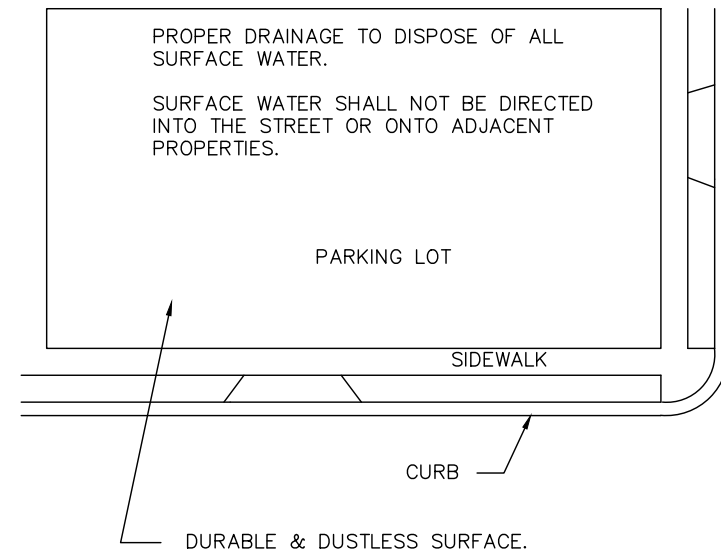
O. ALL EDGES TO BE TRIMMED BACK TO SOLID MATERIAL AND BE STRAIGHT AND NEAT AS PER THE VILLAGE'S INSTRUCTIONS.



TYPICAL ALLEY CONSTRUCTION

- A. MINIMUM STANDARD (UNLESS OTHERWISE APPROVED.)
- B. FOR RENOVATION OF EXISTING ALLEYS ONLY. NO NEW ALLEY'S WILL BE APPROVED WITHIN THE VILLAGE.

ADJACENT PARKING AREAS SHALL BE CONNECTED TO LIMIT THE NUMBER OF ACCESS DRIVES TO THE STREET.

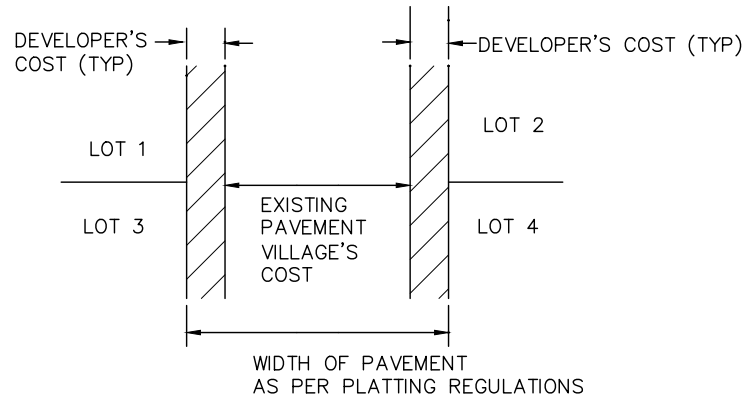


PARKING LOT COMPOSITION

THE FOLLOWING ARE ACCEPTED LOT SURFACES (UNLESS OTHERWISE APPROVED).

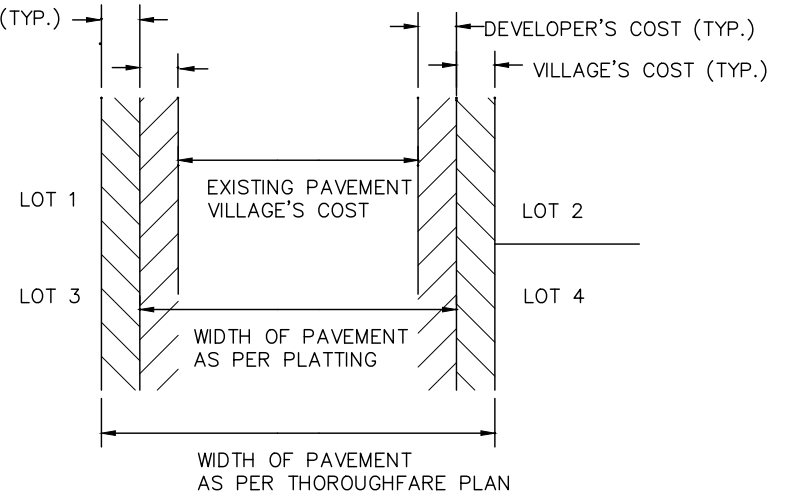
- A. MINIMUM OF 4" TOTAL THICKNESS
ITEM 441 - 2.5" ASPHALT CONCRETE, INTERMEDIATE COURSE
ITEM 441 - 1.5" ASPHALT CONCRETE, SURFACE COURSE
- B. MINIMUM OF 6" TOTAL THICKNESS
ODOT CLASS QC 1 CONCRETE, #4 REBAR 24" O/C MINIMUM.

EXAMPLE "A"



STREET IMPROVEMENTS FROM EXISTING STREET WIDTH TO PLATTING REGULATION WIDTH

EXAMPLE "B"

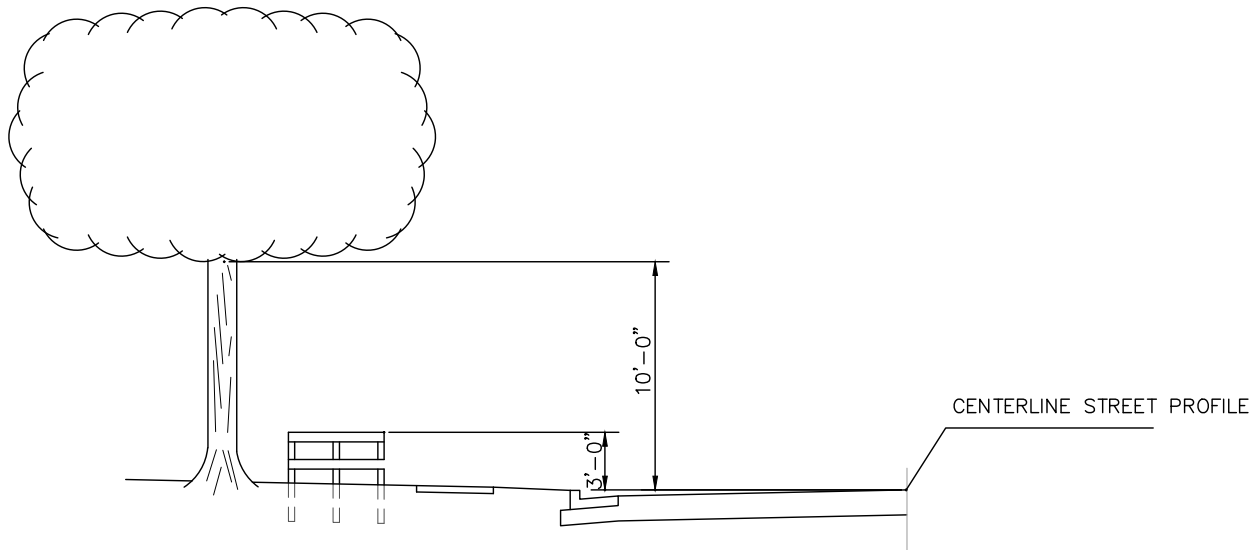
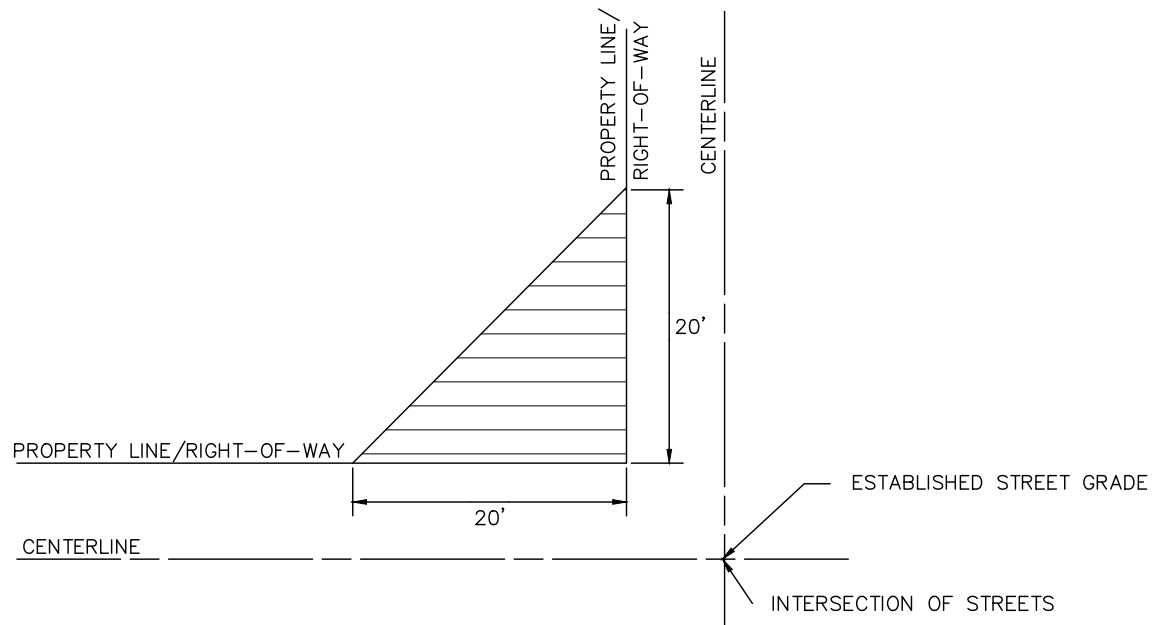


STREET IMPROVEMENTS FROM EXISTING STREET WIDTH TO THOROUGHFARE PLAN WIDTH

NOTES

- A. IF BOTH SIDES OF A STREET ARE INCLUDED IN THE SUBDIVISION, THE DEVELOPER PAYS THE TOTAL COST FOR ADDITIONAL WIDTH OF EXCAVATION, PAVEMENT, CURB AND SIDEWALK INCLUDING COST TO BRING THE STORM SEWER SYSTEM, WATER, AND SANITARY SEWER UP TO STANDARDS.
- B. IF ONE SIDE OF THE SUBDIVISION ABUTS AN EXISTING STREET, THE DEVELOPER SHALL PAY FOR THE TOTAL COST OF ONE SIDE FOR ADDITIONAL WIDTH OF EXCAVATION, PAVEMENT, CURB AND SIDEWALK INCLUDING COST TO BRING THE STORM SEWER SYSTEM, WATER, AND SANITARY SEWER UP TO STANDARDS.
- C. THE VILLAGE PAYS CONSTRUCTION COST ON EXISTING STREET WIDTH AND ANY OVERSIZING TO MEET THOROUGHFARE PLAN.

STREET IMPROVEMENT CONDITIONS



VISION CLEARANCE EXHIBIT

NOTES

THERE SHALL NOT BE ANYTHING ABOVE 3' OR BELOW 10' OF THE ESTABLISHED STREET GRADE IN THE TRIANGULAR SHADED AREA.

(OW-134)
ROAD WORK
AHEAD



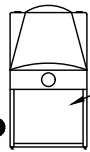
(OW-121)
ONE-LANE ROAD
AHEAD



(OW-125)
FLAGMAN AHEAD



FLAGMAN



WORK VEHICLE



STANDARD DRUM OR
TYPE 1 BARRICADE



FLAGMAN



(OW-125)
FLAGMAN AHEAD



(OW-121)
ONE-LANE ROAD
AHEAD



(OW-134)
ROAD WORK
AHEAD

NOTES

A. THE POLICE AND FIRE DEPARTMENTS SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF ANY CONSTRUCTION. NO STREET SHALL BE CLOSED WITHOUT THE APPROVAL OF THE VILLAGE.

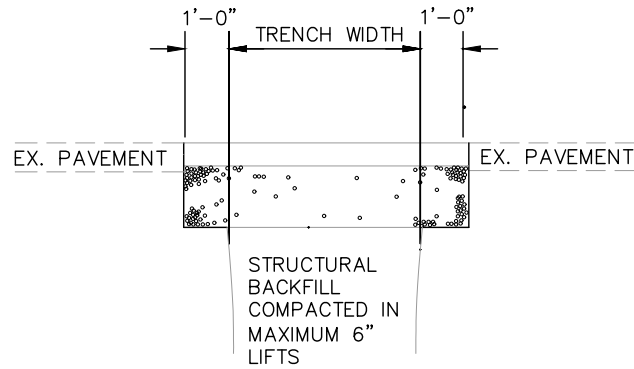
B. IF THE WORK IS TO COVER THE ENTIRE WIDTH OF THE STREET, ONE HALF OF THE STREET SHALL BE MAINTAINED FOR TRAFFIC WHILE ONE HALF OF THE STREET IS REPAIRED.

C. BARRICADE DISTANCE AND SEPARATION OF WARNING TO BE SPACED AS PER JOB SITE ACCORDING TO THE VILLAGE.

D. IF BARRICADES ARE TO BE LEFT UP OVERNIGHT, WARNING LIGHTS (FLASHERS) ARE TO BE USED.

E. ALL STREET CONTROL DEVICES APPLICABLE TO DIFFERENT WIDTH STREETS, TYPE OF CONSTRUCTION, ETC., SHALL CONFORM TO THE LATEST REVISION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, UNLESS OTHERWISE APPROVED BY THE VILLAGE AND SHALL BE IN PLACE AND PROPERLY DISPLAYED PRIOR TO THE COMMENCEMENT OF ANY WORK.

F. CONTRACTOR MUST FOLLOW MOST CURRENT EDITION OF THE OMUTCD.



TYPICAL PAVEMENT RESTORATION DETAIL

TYPICAL PAVEMENT RESTORATION NOTES

MINIMUM GRAVEL PAVEMENT REPLACEMENT
2" OF ODOT #411 ON
12" OF ODOT ITEM 304, IN LIFTS OF 3" MAXIMUM

MINIMUM ASPHALT PAVEMENT REPLACEMENT
PERMANENT PAVEMENT REPLACEMENT SHALL EQUAL OR EXCEED THE EXISTING PAVEMENT COMPOSITION. (MINIMUM PAVEMENT COMPOSITION SEE PAGE 300-2 UTILIZING APPROPRIATE STREET CLASSIFICATION).

SOIL BORINGS SHALL BE CAPPED WITH A MINIMUM OF 9" OF ODOT CLASS QC 1 CONCRETE.