

P E R M I T

CITY OF NAPOLEON
255 W. RIVERVIEW AVE
NAPOLEON, OHIO 43545

DIVISION OF BUILDING & ZONING
PH (419) 592-4010
FAX (419) 599-8393

PERMIT NO: 98075

DATE ISSUED: 04-02-98

ISSUED BY: BND

JOB LOCATION: 533 HIGH ST

EST. COST: 8200.00

LOT #:

SUBDIVISION NAME:

OWNER: CARROLL, COLBY
ADDRESS: 435 FILLMORE ST
CSZ: NAPOLEON, OH 43545
PHONE: 419-592-2752

AGENT: SELF
ADDRESS:
CSZ:
PHONE:

USE TYPE - RESIDENTIAL:

OTHER:

ZONING INFORMATION

DIST: LOT DIM: AREA: FYRD: SYRD: RYRD:
MAX HT: # PKG SPACES: # LOADING SP: MAX LOT COV:

BOARD OF ZONING APPEALS:

WORK TYPE - NEW: REPLMNT: ADD'N: ALTER: REMODEL:

WORK INFORMATION

SIZE - LGTH: WIDTH: STORIES: LIVING AREA SF:
GARAGE AREA SF: HEIGHT: BLDG VOL DEMO PERMIT:

WORK DESCRIPTION

GARAGE DETACHED & REMODEL

FEE DESCRIPTION

PAID DATE

FEE AMOUNT DUE

BUILDING PERMIT

55.00

TOTAL FEES DUE

55.00

4-2-98

DATE

[Handwritten Signature]

APPLICANT SIGNATURE



CITY OF NAPOLEON INSPECTION FORM

PERMIT #: 98075

DATE ISSUED: 04-02-98

JOB LOCATION: 533 HIGH ST

OWNER: CARROLL, COLBY

OWNER PHONE: 419-592-2752

CONTRACTOR: SELF

CONTRACTOR PHONE:

WORK DESCRIPTION: GARAGE DETACHED & REMODEL

PLUMBING: UNDGR _____ RGHIN _____ FINAL _____

 SEWER INSP _____

MECHANICAL: UNDGR _____ RGHIN _____ FINAL _____

 FURNACE REPLC _____ AIR COND _____

ELECTRICAL: UNDGR _____ RGHIN _____ FINAL _____

 SERV UPGR _____

BUILDING: SITE _____ FTG _____ FNDDT _____

 STRUC _____ ROOF _____ EXT _____

 VENT _____ ACCES _____ EGRS _____

 SMKDT _____ FINAL _____

 ISSUE TEMP OCCUP _____ ISSUE OCCUP _____

STRG SHED: SITE _____ FINAL _____

SIGN: FTG _____ FINAL _____

FENCE: SITE _____ FINAL _____

MISC INSP: _____

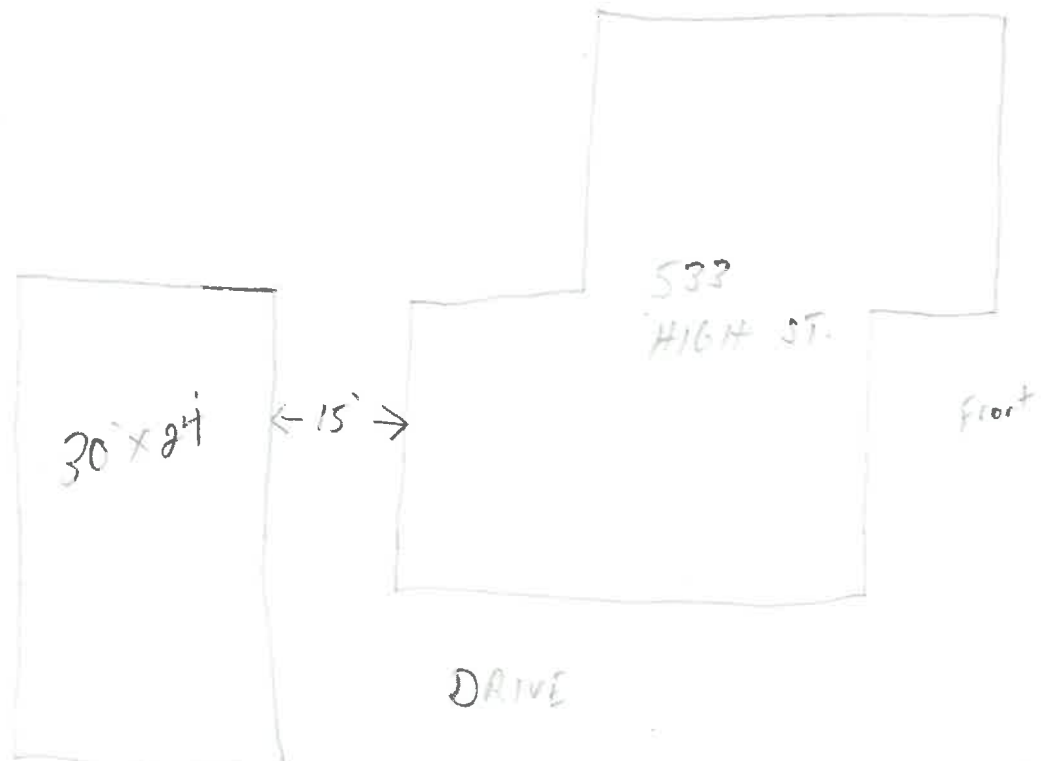
NOTES: _____

INSPECTOR INITIALS: _____

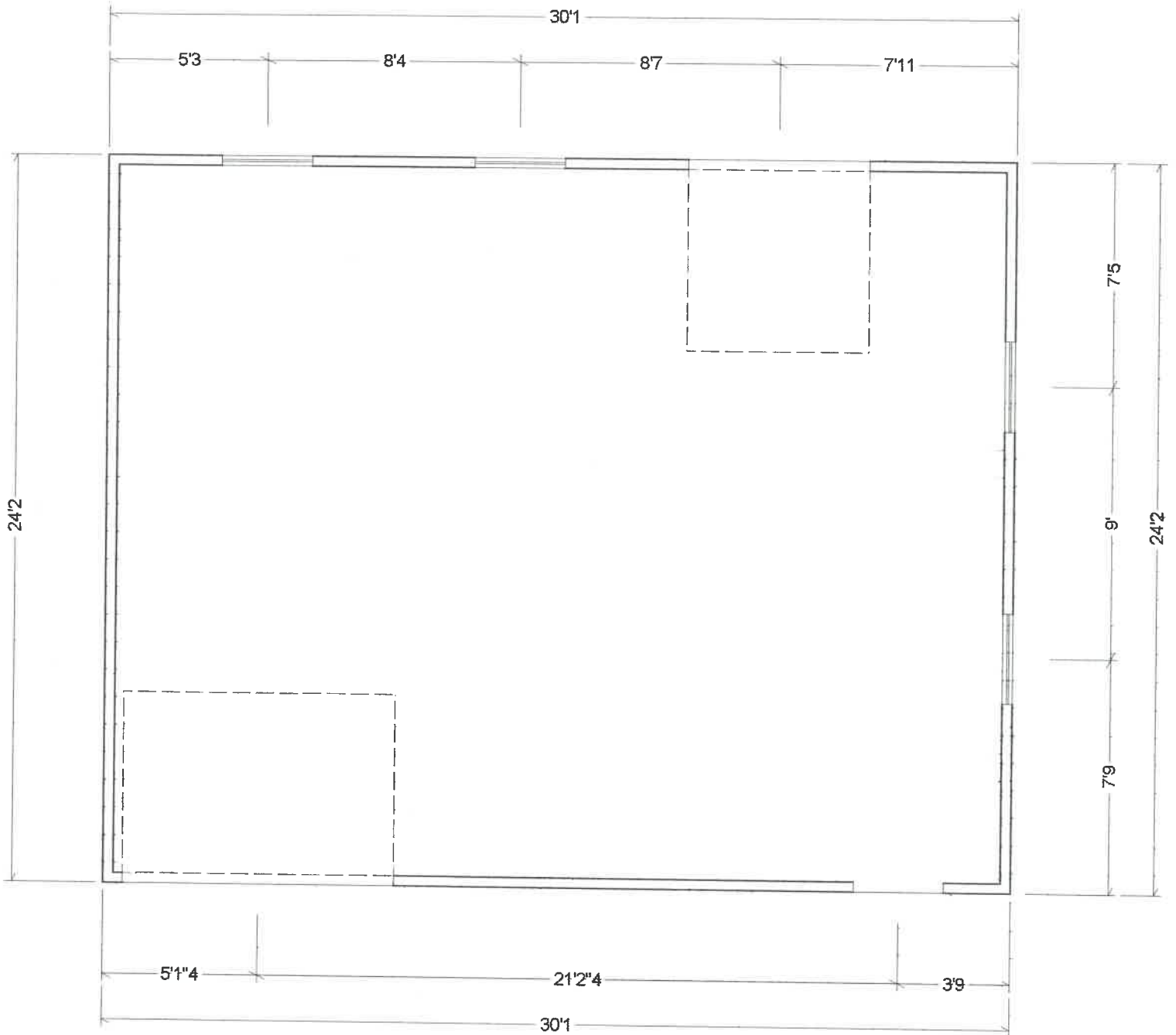
COLBY AND MICHELLE CARROLL
533 HIGH ST.

HOME: PLUMBING/ELECT	\$1000.00
SIDING (VINYL)	\$2500.00
GARAGE: CONCRETE	\$ 600.00
GARAGE PKG..	\$3500.00
STONE	\$ 100.00
HEATING	\$ 500.00
TOTAL:	\$8200.00

GARAGE WILL SET 15' SOUTH OF THE REAR OF THE HOME. TOTAL GARAGE SIZE IS 30'x24' AND WILL BE A INSULATED/HEATED GARAGE.



533 HIGH ST.



City of NAPOLEON, OHIO

255 WEST RIVERVIEW AVENUE, P.O. BOX 151
NAPOLEON, OHIO 43545-0151
(419) 592-4010
FAX (419) 599-8393



November 6, 1998

Mayor
Donald M. Stange

Mr. Colby Carroll
533 High St.
Napoleon, Ohio 43545

Members of Council
Michael J. DeWit, President
Robert G. Heft
James Hershberger
David F. Miller
Travis B. Sheaffer
Char Weber
Terri A. Williams

Re. Carport structural & roofing code violations.

Dear Colby

I wish you would have informed me as to your plans and the design of the carport. Unfortunately this has caused problems that could have been averted.

City Manager
Jon A. Bisher

Finance Director
Gregory J. Heath

Law Director
David M. Grahn

City Engineer
Adam C. Hoff, P.E.

The inspection today has revealed two very important code violation problems. First, the allowable span for 2x6 rafters using SPF as you did is only 9 feet 6 inches. The span of the carport is 16 feet which requires 2x10 rafters spaced at 16 inches on center (see attached span chart). Also note a copy of the roofing code, the minimum roof pitch is 2/12 you are less than 1/12. I made a copy of the directions on the shingle package from your house, note the minimum stated on the shingle package. You will need to slope the roof to a minimum of 2/12 lay down felt paper as is directed in the attached code section. You will note that two layers of 15 # felt are required with a 19 inch overlap.

Code compliance is required, I would be glad to assist you in code issues related to the reconstruction of the carport and any future endeavors.

Sincerely

Brent N. Damman
Zoning Administrator

TABLE 802.4m
ALLOWABLE SPANS FOR LOW SLOPE RAFTERS
 Slope 3 in 12 or less—40 Lbs. per Sq. Ft. Live Load
 (No Finished Ceiling)

DESIGN CRITERIA:

Strength—10 lbs. per sq. ft. dead load plus 40 lbs. per sq. ft. live load determines fiber stress.

Deflection—For 40 lbs. per sq. ft. live load. Limited to span in inches divided by 240.

HOW TO USE TABLES: Enter table with span of rafters (upper figure in each square). Determine size and spacing (first column) based on stress grade (top row) and modulus of elasticity (lower figure in each square) of lumber to be used.

RAFTER SIZE AND SPACING		ALLOWABLE EXTREME FIBER STRESS IN BENDING, "F _b ," (psi)										
(inches)	(inches)	300	400	500	600	700	800	900	1000	1100	1200	1300
2 × 6	12.0	5-6 0.14	6-4 0.22	7-1 0.31	7-9 0.41	8-5 0.51	9-0 0.63	9-6 0.75	10-0 0.88	10-6 1.01	11-0 1.15	11-5 1.30
	13.7	5-2 0.13	5-11 0.21	6-8 0.29	7-3 0.38	7-10 0.48	8-5 0.59	8-11 0.70	9-5 0.82	9-10 0.95	10-3 1.08	10-9 1.22
	16.0	4-9 0.12	5-6 0.19	6-2 0.27	6-9 0.35	7-3 0.44	7-9 0.54	8-3 0.65	8-8 0.76	9-1 0.88	9-6 ^{span} 1.00	9-11 1.12
	19.2	4-4 0.11	5-0 0.18	5-7 0.24	6-2 0.32	6-8 0.41	7-1 0.50	7-6 0.59	7-11 0.69	8-4 0.80	8-8 0.91	9-1 1.03
	24.0	3-11 0.10	4-6 0.16	5-0 0.22	5-6 0.29	5-11 0.36	6-4 0.44	6-9 0.53	7-1 0.62	7-5 0.71	7-9 0.81	8-1 0.92
2 × 8	12.0	7-3 0.14	8-4 0.22	9-4 0.31	10-3 0.41	11-1 0.51	11-10 0.63	12-7 0.75	13-3 0.88	13-11 1.01	14-6 1.15	15-1 1.30
	13.7	6-9 0.13	7-10 0.21	8-9 0.29	9-7 0.38	10-4 0.48	11-1 0.59	11-9 0.70	12-5 0.82	13-0 0.95	13-7 1.08	14-1 1.22
	16.0	6-3 0.12	7-3 0.19	8-1 0.27	8-11 0.35	9-7 0.44	10-3 0.54	10-11 0.65	11-6 0.76	12-0 0.88	12-7 1.00	13-1 1.12
	19.2	5-9 0.11	6-7 0.18	7-5 0.24	8-1 0.32	8-9 0.41	9-4 0.50	9-11 0.59	10-6 0.69	11-0 0.80	11-6 0.91	11-11 1.03
	24.0	5-2 0.10	5-11 0.16	6-7 0.22	7-3 0.29	7-10 0.36	8-4 0.44	8-11 0.53	9-4 0.62	9-10 0.71	10-3 0.81	10-8 0.92
2 × 10	12.0	9-3 0.14	10-8 0.22	11-11 0.31	12-1 0.41	14-2 0.51	15-1 0.63	16-0 0.75	16-11 0.88	17-9 1.01	18-6 1.15	19-3 1.30
	13.7	8-8 0.13	10-0 0.21	11-2 0.29	12-3 0.38	13-3 0.48	14-2 0.59	15-0 0.70	15-10 0.82	16-7 0.95	17-4 1.08	18-0 1.22
	16.0	8-0 0.12	9-3 0.19	10-4 0.27	11-4 0.35	12-3 0.44	13-1 0.54	13-11 0.65	14-8 0.76	15-4 0.88	16-0 ^{span} 1.00	16-8 1.12
	19.2	7-4 0.11	8-5 0.18	9-5 0.24	10-4 0.32	11-2 0.41	11-11 0.50	12-8 0.59	13-4 0.69	14-0 0.80	14-8 0.91	15-3 1.03
	24.0	6-6 0.10	7-7 0.16	8-5 0.22	9-3 0.29	10-0 0.36	10-8 0.44	11-4 0.53	11-11 0.62	12-6 0.71	13-1 0.81	13-7 0.92
2 × 12	12.0	11-3 0.14	13-0 0.22	14-6 0.31	15-11 0.41	17-2 0.51	18-4 0.63	19-6 0.75	20-6 0.88	21-7 1.01	22-6 1.15	23-5 1.30
	13.7	10-6 0.13	12-2 0.21	13-7 0.29	14-11 0.38	16-1 0.48	17-2 0.59	18-3 0.70	19-3 0.82	20-2 0.95	21-1 1.08	21-11 1.22
	16.0	9-9 0.12	11-3 0.19	12-7 0.27	13-9 0.35	14-11 0.44	15-11 0.54	16-11 0.65	17-9 0.76	18-8 0.88	19-6 1.00	20-3 1.12
	19.2	8-11 0.11	10-3 0.18	11-6 0.24	12-7 0.32	13-7 0.41	14-6 0.50	15-5 0.59	16-3 0.69	17-0 0.80	17-9 0.91	18-6 1.03
	24.0	7-11 0.10	9-2 0.16	10-3 0.22	11-3 0.29	12-2 0.36	13-0 0.44	13-9 0.53	14-6 0.62	15-3 0.71	15-11 0.81	16-7 0.92

For SI: 1 inch = 25.4 mm, 1 pound per square inch = 6.895 kPa, 1 pound per square foot = 0.0479 kN/m².

NOTE: The modulus of elasticity, "E," in 1,000,000 pounds per square inch is shown below each span.

This is what you have now →

This is what you need →

CHAPTER 9

ROOF COVERINGS

SECTION 901 GENERAL

901.1 Application. The provisions of this chapter shall control the design and construction of roof coverings for all buildings. The use of materials or methods not specified in this chapter accomplishing the purposes intended by this code and approved by the building official in accordance with Section 108 shall be accepted as complying with this code.

901.2 Requirements. The roof covering shall be capable of accommodating the loads indicated in Section 301 and provide a barrier against the weather to protect its supporting elements and the structure beneath.

901.3 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections 903 through 909. Classified roofing shall conform to UL 790 and shall be installed in areas designated by law as requiring their use or when the edge of the roof is less than 3 feet (914 mm) from a property line. The roofing materials set forth in Sections 904 through 906 and concrete slabs may be accepted as Class A roofing.

SECTION 902 DECK PREPARATION

902.1 Supporting construction. Roofing shall be applied only when the supporting roof construction is clean and dry.

902.2 Single layer underlayment. When a single ply of underlayment is required, it shall be laid parallel to the eaves with a 2-inch (51 mm) top lap and 4-inch (102 mm) end lap nailed sufficiently to hold in place.

902.3 Multiple layer underlayment. When two layers of underlayment are required, they shall be laid shingle fashion parallel to the eaves with 19-inch (483 mm) top lap and 12-inch (305 mm) end lap, with end laps located at least 6 feet (1829 mm) from end laps in the preceding course, and blind nailed sufficiently to hold in place.

SECTION 903 ASPHALT SHINGLES

903.1 General. Asphalt shingles shall be applied only to solidly sheathed roofs. Asphalt shingles shall be applied according to the manufacturer's printed instructions and this code.

903.2 Slopes of four units vertical in 12 units horizontal (33-percent slope) or greater. Asphalt shingle roofs shall have an underlayment of not less than one ply of No. 15 felt, applied as required in Section 902 and Table 903.4.

903.3 Slopes less than four units vertical in 12 units horizontal (33-percent slope) but not less than two units vertical

in 12 units horizontal (17-percent slope). Nominally double-coverage asphalt shingles may be installed on slopes as low as two units vertical in 12 units horizontal (17-percent slope), provided the shingles are approved self-sealing shingles or are hand sealed and are installed with an underlayment consisting of two layers of No. 15 felt, applied as required in Section 902 and Table 903.4. In areas where the January average daily temperature is 25°F. (−3.9°C.) or less, or where there is a possibility of ice forming along the eaves and causing a backup of water, the two layers of felt shall be cemented together in addition to the required nailing, from the eaves up the roof to overlie a point 24 inches (610 mm) inside the interior wall line of the building. Asphalt shingles shall not be used on roofs with slopes less than two units vertical in 12 units horizontal (17-percent slope).

903.4 Fasteners. Asphalt shingles shall be fastened according to the manufacturer's printed instructions and Table 903.4.

903.5 Valley flashing. Roof valleys shall be flashed by one of the methods listed in Sections 903.5.1 through 903.5.3. Asphalt shingles shall be applied according to the manufacturer's printed instructions.

903.5.1 Sheet metal. Open roof valleys may be provided of not less than No. 28 gage galvanized corrosion-resistant sheet metal and shall extend at least 8 inches (203 mm) from the center line each way. Sections of flashing shall be jointed to provide an adequate water lock.

903.5.2 Roof roofing. Woven or closed valleys may be constructed by centering 36-inch-wide (914 mm) roll roofing material not less than Type 50 in the valley over the underlayment.

903.5.3 Multiple layer flashing. Roof valley flashing may be of laced composition shingles, applied in an approved manner, with an underlay of not less than 30-pound (14 kg) felt extending 10 inches (254 mm) from the center line each way, or shall be of two layers of 90-pound (41 kg) mineral-surfaced cap sheet cemented together with the bottom layer not less than 12 inches (305 mm) wide laid face down and the top layer not less than 24 inches (610 mm) wide laid face up.

903.6 Side wall flashing. Flashing against a vertical sidewall shall be by the step-flashing method.

Exception: Other methods shall be permitted when installed in accordance with the shingle manufacturer's printed instructions.

903.7 Other flashing. Flashings against vertical front wall, as well as soil stack, vent pipe and chimney flashing, shall be applied according to asphalt shingle manufacturer's printed instructions.

903.8 Hips and ridges. Hip and ridge shingles shall be fastened according to the manufacturer's printed instructions and Table 903.4. Hip and ridge weather exposure shall not exceed that permitted for the field of the roof.

**SECTION 904
SLATE SHINGLES**

904.1 General. Slate shingles shall be applied in an approved manner and securely fastened with corrosion-resistant nails or corrosion-resistant nails and wire.

904.2 Materials. Slate roofing shall conform to ASTM C 406.

904.3 Underlayment. Slate shingle roofs shall have an underlayment of not less than two layers of No. 15 felt or one layer of No. 30 felt, applied as required in Section 902. Nails for shingle tiles shall not be less than No. 14 gage copper or No. 14 gage corrosion-resistant metal and shall be long enough to penetrate into the sheathing ³/₄ inch (19 mm) or through the thickness of the sheathing, whichever is less.

904.4 Valleys. Roof valley flashing shall be provided of not less than No. 28 gage galvanized corrosion-resistant sheet metal and shall extend at least 11 inches (279 mm) from the center line each way and shall have a splash diverter rib not less than 1 inch (25 mm) high at the flow line formed as part of the flashing. Sections

of flashing shall have an end lap of not less than 6 inches (153 mm) and shall be provided with an adequate water lock.

**SECTION 905
METAL**

905.1 General. Flat sheets or shingles shall be applied only to solid sheathed roofs. Metal roofing shall be applied in an approved manner.

905.2 Materials. Metal roofing shall conform to AA ASM35, or ASTM A 361 or B 209.

905.3 Slope. Metal shingles shall not be installed on a roof having a slope less than three units vertical in 12 units horizontal (25-percent slope) unless approved by the building official.

905.4 Underlayment. Metal shingles shall be applied over an underlayment of not less than No. 30 felt, applied as required in Section 902.

**TABLE 903.4
ASPHALT SHINGLE APPLICATION**

ROOF SLOPE	NOT PERMITTED BELOW 2:12	
	2:12 to less than 4:12	4:12 and over
DECK REQUIREMENT	Asphalt shingles shall be fastened to solidly sheathed roofs. Sheathing shall conform to Tables 503.2.1.1a and 803.3.2.	
UNDERLAYMENT Temperate climate	Asphalt strip shingles may be installed on slopes as low as 2 inches in 12 inches, provided the shingles are approved self-sealing or are hand-sealed and are installed with an underlayment consisting of two layers of nonperforated Type 15 felt applied shingle fashion. Starting with an 18-inch-wide sheet and a 36-inch-wide sheet over it at the eaves, each subsequent sheet shall be lapped 19 inches horizontally.	One layer nonperforated Type 15 felt lapped 2 inches horizontally and 4 inches vertically to shed water.
Severe climate: In areas subject to wind-driven snow or roof ice buildup.	Same as for temperate climate, and additionally the two layers shall be solid cemented together with approved cementing material between the plies extending from the eave up the roof to a line 24 inches inside the exterior wall line of the building.	Same as for temperate climate, except that one layer No. 40 coated roofing or coated glass base sheet shall be applied from the eaves to a line 12 inches inside the exterior wall line with all laps cemented together.
ATTACHMENT Type of fasteners	Corrosion-resistant nails, minimum 12-gage ³ / ₈ -inch head, or approved corrosion-resistant staples, minimum 16-gage ¹⁵ / ₁₆ -inch crown width. Fasteners shall be long enough to penetrate into the sheathing ³ / ₄ inch or through the thickness of the sheathing, whichever is less.	
No. of fasteners ¹	4 per 36-40-inch strip 2 per 9-18-inch shingle	
Exposure Field of roof Hips and ridges	Per manufacturer's instructions included with packages of shingles. Hip and ridge weather exposures shall not exceed those permitted for the field of the roof.	
Method	Per manufacturer's instructions included with packages of shingles.	
FLASHINGS Valleys Other flashings	Per Section 903.5 Per Sections 903.6 and 903.7	

For SI: 1 inch = 25.4 mm.

¹ Figures shown are for normal application. For special conditions such as mansard application and where roofs are in special wind regions, shingles shall be attached per manufacturer's instructions.

(B) Overlap successive courses 2". Overlap course ends 4". Side laps are to be staggered 6' apart.

(C) Apply metal drip edge over underlayment at rake.

Note: Where ice-damming may cause leaks, apply Owens Corning WeatherLock™ or equivalent eaves flashing at least 24" beyond the inside wall line. When using a coated smc surfaced roll roofing, apply over the underlayment. Where eaves flashing product, follow the manufacturer's instructions.

1b For Low Slope Decks — 2" in 12" to 4" in 12"

Application of underlayment, metal drip edges, and eaves flashing:

(A) Apply 19" starter strip of underlayment over metal drip edge at eaves. Use only enough fasteners to hold in place.

(B) Use 36" strip of underlayment for remaining courses, overlapping each course 19". Side laps are to be staggered 6' apart.

(C) Apply metal drip edge over underlayment at rake.

Note: Where eaves flashing is required, apply Owens Corning WeatherLock or equivalent specialty eaves flashing product or apply a continuous layer of asphalt plastic cement between the plies of underlayment at least 24" beyond

2 Shingle Application

Apply shingles over properly prepared roof deck, starting at bottom of roof and working across and up. This will blend shingles from one bundle into the next and minimizes any normal shade variation. Classic shingles are applied with a 6" offset. While a 6" offset is recommended, application with offsets of 4" or 5" are also acceptable. Caution must be exercised to assure that end joints are no closer than 2" from a fastener in the shingle below and that side laps are no less than 4" in succeeding courses. Refer to course applications steps for specific instructions.

If racking application methods are used, the applicator should use a shir...

