inches thick. Said manhole shall be provided with an opening for a ten (10) inch cast iron pipe, and shall be provided with an asphaltic coated cast iron cover consisting of a frame weighing three hundred ninety (390) pounds, and a solid lid weighing one hundred fifty (150) pounds, set flush with the ground where located. The average thickness of the metal in said cover shall be one and one-half (1½) inches, the height of said cover shall be nine (9) inches, and the diameter of the lid shall be twenty-two and three-quarter (22¾) inches. The details for said manhole are shown on Plate 21-A.

There shall be constructed along the lines and at the elevations as shown on Plates 2 to 18, inclusive, the following drains, which shall be constructed of vitrified, salt-glazed, hub and spigot tile pipes of the internal diameter as indicated by the size stated below. All of said pipes fifteen (15) inches and up, in diameter, shall be double strength. Said drains shall be laid under the proposed pavement or walks, with joints of mortar, composed by volume of one (1) part Portland cement and two (2) parts sand, mixed with sufficient water to make a quaking mass; and the trench shall be backfilled with sand from the bottom of the trench to the under surface of the pavement, and all surplus excavated material shall be removed from the site of the improvement. The depth of the pipes in all instances refers to the depth of the flow line of said pipes. Said tile pipes shall connect to the herein proposed catchbasins and catchbasin manholes, in a manner to properly drain the proposed improvement.

Fifty (50) lineal feet of six (6) inch tile pipe drain, laid at an average depth of four and one-half (4½) feet below the top of the curb.

Seven hundred ninety-five (795) lineal feet of eight (8) inch tile pipe drain, laid at an average depth of six and one-half (6½) feet below the top of the pavement.

Four hundred seven (407) lineal feet of ten (10) inch tile pipe drain, laid at an average depth of six and one-half (6½) feet below the top of the pavement.

Two hundred sixty-nine (269) lineal feet of twelve (12) inch tile pipe drain, laid at an average depth of six and one-half (6½) feet below the top of the pavement.

Forty-six (46) lineal feet of fifteen (15) inch tile pipe drain, laid at an average depth of six (6) feet below the top of the pavement.

Twenty-five (25) lineal feet of eighteen (18) inch tile pipe drain, laid at an average depth of six and one-half (6½) feet below the top of the pavement.

Nineteen (19) lineal feet of twenty-four (24) inch tile pipe drain, laid at an average depth of six (6) feet below the present ground in Dell Lane.

There shall be constructed along the lines and at the elevations as shown on Plates 2 to 18, inclusive, the following drains, which shall be constructed of vitrified, salt-glazed hub and spigot tile pipes of the internal diameter as indicated by the size stated below. All tile pipes fifteen (15) inches and up, in diameter, shall be double strength. Said pipes shall be laid with open joints, in the parkways along lines parallel with and two (2) feet from the back of the curbs, except at catchbasins, catchbasin-manholes, and drop inlets, where they shall curve toward the center line of the proposed pavement and connect with said catchbasins, catchbasin-manholes, or drop inlets. The trenches for said drains shall be backfilled with earth, and all surplus material shall be removed from the site of the improvement. The depth of the pipes in all instances refers to the flow line of said pipes.

Seven thousand seven hundred twenty (7720) lineal feet of six (6) inch tile pipe drain, laid at an average depth of three and one-half (3½) feet below the top of the curb.

Seven thousand four hundred fifty-four (7454) lineal feet of eight (8) inch tile pipe drain, laid at an average depth of six (6) feet below the top of the curb.

Three thousand twenty-eight (3028) lineal feet of ten (10) inch tile pipe drain, laid at an average depth of seven (7) feet below the top of the curb.

One thousand six hundred fifty-nine (1659) lineal feet of twelve (12) inch tile pipe drain, laid at an average depth of seven (7) feet below the top of the curb.

Nine hundred fifty (950) lineal feet of fifteen (15) inch tile pipe drain, laid at an average depth of six (6) feet below the top of the curb.

One hundred forty-five (145) lineal feet of eighteen (18) inch tile pipe drain, laid at an average depth of six (6) feet below the top of the curb.

Two hundred ninety-eight (298) lineal feet of twenty-four (24) inch tile pipe drain, laid at an average depth of seven (7) feet below the top of the curb.

There shall be constructed along the lines and at the elevations as shown on said Plates 3, 11, 12, and 14, the following outlet pipes, which shall be bell and spigot cast iron pipes, of the internal diameter as indicated by the size stated below. Said pipes for said outlet drains shall be laid with joints of lead and jute, thoroughly calked into place. Each of said outlet drains shall be connected at its upper end to one of the herein proposed catchbasin manholes, and the lower end shall pass through one of the herein proposed headwalls or the special manhole, and shall be firmly cemented in place in said headwall or special manhole. Each twelve (12) foot length of eight (8) inch cast iron pipe shall weigh five hundred fifteen (515) pounds, each twelve (12) foot length of ten (10) inch cast iron pipe shall weigh six hundred eighty-five (685) pounds, and each twelve (12) foot length of eighteen (18) inch cast iron pipe shall weigh fifteen hundred fifty (1550) pounds. Said pipes shall be laid at an average depth of five (5) feet below the surface of the ground where located. The trenches shall be backfilled with earth, and all surplus excavated materials shall be removed from the site of the improvement. The depth of said outlet pipes refers in all instances to the flow line of said outlet pipes.

Thirty-four (34) lineal feet of eight (8) inch outlet cast iron pipe.

One hundred fifty-five (155) lineal feet of ten (10) inch outlet cast iron pipe.

Eighty (80) lineal feet of eighteen (18) inch outlet cast iron pipe.

There shall be constructed at the location as shown on said Plates 3, 11, and 14, the following headwalls for the outlet cast iron pipes. Said headwalls shall be constructed of concrete composed by volume of one (1) part Portland cement, two (2) parts sand, and four (4) parts gravel or crushed stone, mixed with sufficient water to make a quaking mass, except that the portion left exposed after the backfilling is done, shall be constructed to a depth of one (1) inch of mortar, composed by volume of one (1) part Portland cement and two (2) parts sand, mixed with sufficient water to make a quaking mass. The bottom of said headwalls shall be three (3) feet below the flow line of the outlet pipe where located. The necessary excavation shall be made, the holes around said headwalls shall be backfilled with earth, and all surplus excavated material shall be removed from the site of the improvement. The details for the construction of said headwalls are shown on said Plates 20 and 21-A.

One (1) headwall, to be constructed in First Addition to Ravinia Forest, in the ravine north of Carol Court. Said headwall shall be five (5) feet long, five (5) feet in height, with the bottom twenty-four (24) inches thick, and the top ten (10) inches thick, containing one and four-tenths (1.4) cubic yards of concrete.

One (1) headwall, to be constructed along the west side of Lincolnwood Road at lot 18, Second Addition to Ravinia Forest. Said headwall shall be five (5) feet long, six (6) feet in height, with the bottom twenty-four (24) inches thick, and the top ten (10) inches thick, containing one and six-tenths (1.6) cubic yards of concrete.

One (1) headwall, to be constructed in the ravine between lots 20 and 21, First Addition to Ravinia Forest. Said headwall shall be ten (10) feet long, seven (7) feet in height, with the bottom twenty-four (24) inches thick, and the top twelve (12) inches thick, containing four (4) cubic yards of concrete.

One (1) headwall to be constructed in the ravine west of Lot 7, Ravine Manor. Said headwall shall be six (6) feet high, six (6) feet long, with bottom two (2) feet, and the top one (1) foot, containing two (2) cubic yards of concrete.

There shall be constructed at the location as shown on said Plates 9 and 16, the following reinforced concrete retaining walls. The footings and body portion of the retaining walls, and of the railings and copings, where required, shall be composed by volume of one (1) part Portland cement, two (2) parts sand, and four (4) parts gravel or crushed stone, mixed with sufficient water to make a quaking mass. The portion of retaining wall, and of railings and copings, where required, which is left exposed after the backfilling is done, shall be constructed to a depth of one (1) inch of mortar composed by volume of one (1) part Portland cement and two (2) parts sand, mixed with sufficient water to make a quaking mass. The necessary excavation shall be made, including the removal of all old tree stumps, and the holes around said walls shall be backfilled with earth. Dimensions as stated below.

One (1) reinforced concrete retaining wall to be located along the WEST LINE OF DELL LANE, with opening for a twenty-four (24) inch pipe; FOOTING two (2) feet high, twelve (12) feet long, and seven (7) feet wide; WALL eleven (11) feet high, twelve (12) feet long, and one foot three inches (1'-3") wide; RAILING three (3) feet high, twelve (12) feet long, and one foot three inches (1'-3") thick; COPING six (6) inches high, twelve feet four inches (12'-4"), long, and one foot seven inches (1'-7") wide; containing fourteen and one-half (14½) cubic yards of concrete, reinforced with eight hundred fifty-two (852) pounds of one-half (½) inch square deformed steel reinforcing bars, including removal of all old tree stumps; the location of said retaining wall is shown on said Plate 16, and the detail for construction on said Plate 22.

One (1) reinforced concrete retaining wall to be located along the EAST SIDE OF DELL LANE, with opening for twenty-four (24) inch pipe; FOOTING two (2) feet high, thirty-nine (39) feet long, and seven (7) feet wide; WALLS, CENTER SECTION twelve feet six inches (12'-6") high, eleven feet six inches (11'-6") long, and one foot three inches (1'-3") thick; NORTH INTERMEDIATE SECTION nine feet six inches (9'-6") high, six feet nine inches (6'-9") long and one foot three inches (1'-3") thick; NORTH SECTION six feet six inches (6'-6") high, six feet six inches (6'-6") long, and one foot three inches (1-3") thick; SOUTH INTERMEDIATE SECTION eight feet six inches (8'-6") high, five (5) feet long, and one foot three inches (1'-3") thick; SOUTH SECTION five (5) feet high, five feet three inches (5'-3") long, and one foot three inches (1'-3") thick; RAILING three (3) feet high, thirty-five (35) feet long, and one foot three inches (1'-3") thick; COPING six (6) inches high, thirty-five feet four inches (35'-4") long, and one foot seven inches (1'-7") wide; containing forty-three and one-half (43½) cubic yards of concrete reinforced with twenty-four hundred eighty-six (2486) pounds of one-half (½) inch square deformed steel reinforcing bars; including removal of old tree stumps; the location of said retaining wall is shown on said Plate 16, and the details for construction on said Plate 22.

One (1) reinforced concrete retaining wall, without railings or copings, to be located along the north line of BROWNVILLE ROAD, across the west ravine, with an opening for a five (5) foot by seven (7) foot inside dimension culvert; footing, two feet six inches (2'-6") high, eight feet six inches (8'-6") wide, and seventy-three (73) feet long; WALL, average thickness one foot six inches (1'-6"), ten feet six inches (10'-6") high from top of footing to top of wall, seventy-two (72) feet long; containing one hundred eight (108) cubic yards of concrete reinforced with nine thousand one hundred seventy (9170) pounds of deformed steel reinforcing bars; the location of said retaining wall is shown on said Plate 9, and the details for construction on said Plate 24.

One (1) reinforced concrete retaining wall, without railings or copings, to be located along the south side of BROWNVILLE ROAD across the west ravine, with an opening for a five (5) foot by seven (7) foot inside dimension culvert; FOOTING, two feet six inches (2'-6") high, eight feet six inches (8'-6") wide, and seventy-two feet six inches (72'-6") long; WALL, average thickness one foot six inches (1-6"), the westerly forty-nine feet six inches (49'-6") shall be seven (7) feet high from top of footing, the easterly twenty-two (22) feet shall be nine feet six inches (9'-6") high from top of footing; containing ninety-three (93) cubic yards of concrete reinforced with sixty-eight hundred seventy (6870) pounds of deformed steel reinforcing bars; the location of said headwall is shown on said Plate 9, and the details for construction on said Plate 25.

One (1) reinforced concrete retaining wall to be located along the north line of Brownville Road across the east ravine, with an opening for a two (2) foot by two (2) foot inside dimension culvert; FOOTING, two feet six inches (2'-6") thick, in the center section nine (9) feet in width and sixteen feet six inches (16'-6") long; in the west section seven (7) feet wide and nine feet six inches (9'-6") long; in the east section eight feet six inches (8'-6") wide, and ten (10) feet long; WALL, average thickness one foot six inches (1'-6"); in the center section twelve (12) feet high, fifteen (15) feet long; in the west section seven (7) feet high, eight (8) feet long; in the east section nine feet six inches (9'-6") high, ten (10) feet long, the height as measured from the top of the footing; RAILING, one foot three inches (1'-3") thick, three (3) feet high, and thirty-three (33) feet long; COPING, six inches high, one foot seven inches (1'-7") wide, thirty-three feet four inches (34'-4") long; containing fifty-four (54) cubic yards of concrete reinforced with thirty-two hundred (3200) pounds of deformed steel reinforcing bars: the location of said retaining wall is shown on said Plate 9, and the details for construction on said Plate 23.

One (1) retaining wall to be located along the south line of Brownville Road, across the east ravine, with an opening for a two (2) foot by two (2) foot inside dimension culvert; FOOTING, two feet six inches (2'-6") thick, nine (9) feet wide, twenty-seven (27) feet long; WALL, average thickness one foot six inches (1'-6") thick, ten (10) feet high, as measured from top of footing, twenty-six (26) feet long; RAILING, one foot three inches (1'-3") thick, three (3) feet high, twenty-six (26) feet long; COPING, six (6) inches high, one foot seven inches (1'-7") wide, twenty-six feet four inches (26'-4") long; containing forty-three (43) cubic yards of concrete, reinforced with thirty-one hundred fifty (3150) pounds of deformed reinforcing steel bars; the location of said retaining wall is shown on said Plate 9, and the details for construction on said Plate 23.

There shall be constructed at the location as shown on said Plates 4 and 7, the following reinforced concrete culverts with headwalls. Said culverts and the body portion of said headwalls shall be constructed of concrete composed by volume of one (1) part Portland cement, two (2) parts sand, and four (4) parts gravel or crushed stone mixed with sufficient water to make a quaking mass; the portion of said headwalls left exposed after the backfilling is done, shall be constructed to a depth of one (1) inch of mortar composed by volume of one (1) part Portland cement and two (2) parts sand, mixed with sufficient water to make a quaking mass. All necessary excavation shall be made, and the hole around said culverts and headwalls backfilled with earth. Dimensions as stated below.

One (1) reinforced concrete culvert to be located across ST. JOHN'S AVE., inside dimension of barrel two (2) feet high and four (4) feet wide and sixty-four feet eight inches (64'-8") long, side walls, top and bottom nine (9) inches thick. At each end of the barrel shall be constructed a headwall without railing or copings, integral with the said barrel. The west headwall shall be seven feet six inches (7'-6") high, ten feet four inches (10'-4") long, and one (1) foot thick. The east headwall shall be eight feet six inches (8'-6") high, ten feet four inches (10'-4") long, and one (1) foot thick. The barrel shall contain twenty-five and one-half (25½) cubic yards of concrete; the headwalls shall contain five and fifty-seven hundredths (5.57) cubic yards of concrete. Total thirty-one and seven hundredths (31.07) cubic yards of concrete reinforced with twenty-six hundred (2600) pounds of one-half (½) inch square deformed steel reinforcing bars; the location of said culvert and headwalls is shown on said Plate 7, and the details for construction on said Plate 27.

One (1) reinforced concrete culvert with headwall at each end to be located across LINCOLNWOOD ROAD, inside dimensions three (3) feet high, five (5) feet wide, sixty-eight (68) feet long, cover eight (8) inches thick, side walls one (1) foot thick, footings two (2) feet high, three (3) feet wide, struts two (2) feet high, two (2) feet wide, slab between struts four and one-half (4½) inches thick and three (3) feet wide; containing fifty-nine and seventy-five hundredths (59.75) cubic yards of concrete. WEST WALL, FOOTING, two feet six inches (2'-6") high, six (6) feet wide, and thirty-six (36) feet long: WALL, one foot three inches (1'-3") thick at top, four (4) feet thick at bottom, nine feet five inches (9'-5") high, thirty-five (35) feet long; RAILING, one foot three inches (1'-3") thick, three (3) feet high, thirty-five (35) feet long; COPING, six inches (6) high, one foot seven inches (1'-7") wide, and thirty-five feet four inches (35'-4") long. EAST WALL, FOOTING, two feet six inches (2'-6") high, six (6) feet wide, and thirty-six (36) feet long; WALL, one foot three inches (1-3") thick at top, four (4) feet thick at bottom, eleven (11) feet high, and thirty-five (35) feet long; RAILING, one foot three inches (1'-3") thick three (3) feet high, and thirty-five (35) feet long; COPING, six (6) inches high, one foot seven inches (1'-7") wide, and thirty-five feet (35') four inches (4") long. Total concrete for both walls one hundred twenty and ninety-one hundredths (120.91) cubic yards; total concrete for culverts and walls one hundred eighty and sixty-six hundredths (180.66) cubic yards, reinforced with twenty-seven hundred fifty-two (2752) pounds of one-half (½) inch square deformed steel reinforcing bars; the location of said culvert and headwalls is shown on the said Plate 4, and the details for construction on said Plate 28.

There shall be constructed at the location as shown on said Plate 9, the following reinforced concrete culverts, to be connected to the retaining walls at the openings provided in said retaining walls herein provided to be constructed. Said culverts shall be constructed of concrete composed by volume of one (1) part Portland cement, two (2) parts sand, and four (4) parts gravel or crushed stone, mixed with sufficient water to make a quaking mass. All necessary excavation shall be made, and the holes around said culverts shall be backfilled with earth. Dimensions as stated below.

One (1) reinforced concrete culvert in WEST RAVINE across BROWNVILLE ROAD, inside dimensions five (5) feet high, seven (7) feet wide, seventy-six (76) feet long; FOOTING, two (2) feet high, three feet two inches (3'-2") wide, seventy-six (76) feet long; STRUTS, two (2) feet high, two (2) feet wide; TOP SLAB, average thickness one foot one and one-half inches (1'-1½"); SIDE WALLS, one foot two inches (1'-2") thick; slab between struts, four and one-half (4½) inches thick, five (5) feet wide; containing one hundred seven (107) cubic yards of concrete reinforced with forty-three hundred (4300) pounds of deformed steel reinforcing bars; the location of said culvert is shown on said Plate 9, and the details for construction on said Plate 29.

One (1) reinforced concrete culvert in EAST RAVINE, across BROWNVILLE ROAD; inside dimension two (2) feet high, two (2) feet wide, sixty-one feet nine inches (61'-9") long; walls, top, and bottom eight (8) inches thick; containing eighteen (18) cubic yards of concrete reinforced with sixteen hundred fifty (1650) pounds of deformed steel reinforcing bars; the location of said culvert is shown on Plate 9, and the details for construction on said Plate 26.

There shall be constructed forty-six (46) reinforced concrete guard posts across the west ravine in Brownville Road, at the locations as shown on said Plates 9, 24, and 25. Each of said guard posts shall be eight (8) inches thick by one (1) foot wide, and six (6) feet in height, set three (3) feet in the ground, and spaced six (6) feet center to center, containing fifteen one hundredths (0.15) cubic yards of concrete composed by volume of one (1) part Portland cement, two (2) parts sand, and four (4) parts gravel or crushed stone, mixed with sufficient water to make a quaking mass, reinforced with one hundred and twelve (112) pounds of round deformed steel reinforcing bars; all necessary excavation shall be made, and the holes around the said guard posts shall be backfilled with earth; the details for construction of said guard posts are shown on said Plates 24 and 25.

There shall be constructed eighteen (18) reinforced concrete guard posts with reinforced concrete panel walls between the posts. Thirteen (13) of said guard posts shall be placed at the south end of the proposed pavement in Lakeside Place (that portion running south from Sheridan Road), and five (5) of said guard posts shall be placed at the north end of said proposed pavement in said Lakeside Place (that portion running north from County Line Road); the location as shown on Plates 11 and 12. The concrete in the posts and panel walls shall be composed by volume of one (1) part Portland cement, two (2) parts sand, and four (4) parts gravel or crushed stone, mixed with sufficient water to make a quaking mass. The concrete shall be reinforced with twelve hundred sixty-five (1265) pounds of square deformed steel bars. The dimensions of the posts below the top of the pavement shall be four (4) feet high, and ten (10) inches square; above the top of the pavement all posts except the center posts shall be three and one-half (3½) feet high, ten (10) inches square at the top of the pavement, and eight (8) inches square at the top of the posts; coping, one (1) foot square, and six (6) inches high; the center post shall be four and one-half (4½) feet high each, ten (10) inches square at the top of the pavement, and eight (8) inches square at the top of the posts. Each posts shall be provided with a two (2) inch by four (4) inch groove on opposite sides, for the panel walls, except the outside posts, which shall have one (1) groove only. PANEL WALLS, at the end of the pavement in Lakeside Place north of County Line Road shall be two feet ten inches (2'-10") high, four (4) inches thick, and four feet three inches (4'-3") long; at the end of the pavement in Lakeside Place, south of Sheridan Road, the panel walls shall be two feet ten inches (2'-10....) high, four (4) inches thick, and four feet six inches (4'-6") long. Posts and walls contains six (6) cubic yards of concrete. The two (2) center posts shall be provided with a one (1) inch inside diameter iron pipe in the center, from top to bottom. All necessary excavation shall be made, and the holes around said guard posts shall be backfilled with earth, and surplus excavated materials removed. Details of posts and panel walls are shown on Plate 21-A.

Seventy-four (74) present manhole or valve vault covers on the site of the proposed improvement, shall be adjusted, by building up on the present masonry of said manholes or valve vaults, or by cutting down the said masonry and building up on same with brick masonry, so that the top of said covers will be flush with the finished surface of the pavement or ground where located.

All trees within the lines of the proposed pavement and two (2) feet outside of said lines, shall be cut down, and the stumps grubbed out to a depth of one (1) foot below the subgrade. The holes formed by grubbing out of said stumps shall be backfilled with sand, thoroughly tamped in place. All wood and brush from the trees and stumps, and all surplus excavated material shall be removed from the site of the improvement.

There shall be constructed at the locations as shown on said Plates 3 to 18, inclusive, ten thousand (10,000) square feet of concrete sidewalk approaches. The body concrete for said walks shall be four (4) inches thick, and shall be composed by volume of one (1) part Portland cement, two (2) parts sand, and five (5) parts gravel or crushed stone, mixed with sufficient water to make a quaking mass; the exposed portion to a depth of one-half (½) inch shall be constructed of mortar composed by volume of two (2) parts Portland cement and three (3) parts sand, mixed with sufficient water to make a quaking mass. Said sidewalk approaches shall be laid on a layer of cinders six (6) inches thick, after being thoroughly compacted. The width of said sidewalk approaches shall be five (5) feet except at the present sidewalk, where they shall be widened so as to meet the present walks at right angles. All excavation and grading for said sidewalk approaches shall be done, and all surplus excavated material shall be removed from the site of the improvement. For details see Plate 20.

There shall be disconnected, moved, and reset to line and grade, two (2) fire hydrants on St. John's Avenue, as shown on said Plate 6. All excavation shall be done, the necessary pipe and fittings furnished, and laid with joints of jute and lead; the trenches shall be backfilled with sand, and all surplus excavated material shall be removed from the site of the improvement.

The shoulders of the fill across the West Ravine in Brownville Road shall be covered with three thousand eight hundred (3800) square feet of well matted blue grass sod or its equal. Said sod shall be placed and staked down with square wood pegs three-quarters (¾) of an inch square, and fifteen (15) inches long, one (1) peg to each five (5) square feet.

There shall be constructed for pavement connections in County Line Road, as shown in location on said Plates 2, 6, and 10, three hundred (300) square yards of macadam pavement. Said macadam pavement shall be twelve (12) inches thick, and bonded with four (4) gallons of tarvia or its equal for each square ward of pavement surface, and the top shall be dressed with a one-half (½) inch layer of one-quarter (¼) inch gravel. The necessary excavation shall be done, and all surplus excavated material removed from the site of the improvement.

The excavation, grading, and preparing the subgrade herein provided for, shall consist of clearing and grubbing out of brush and trees six (6) inches in diameter or less, the grading of the roadway and parkways herein provided to be constructed, forming of embankments or fills, shaping, sloping, rolling and compacting necessary to bring the roadway and parkways to the proper elevation and lines provided herein, as shown on said Plates 2 to 18, inclusive, and the necessary excavation for culverts, headwalls, and retaining walls. All excavation shall be measured in its original position by the average end area method.

The roadway to be paved hereunder, including the space to be occupied by the combined curb and gutter, shall be so graded that after being rolled with a self-propelling roller weighing not less than four (4) tons, nor more than eight (8) tons, until thoroughly compacted, the subgrade will present a hard and even surface at the proper elevation to receive the pavement and the combined curb and gutter, at the grade as established and shown on said Plates 3 to 18, inclusive.

The parkways within the lines of the proposed improvement shall be so graded that the finished surface of the ground of said parkways will present an even slope from the top of the curbs to the surface of the nearest walk, to the established grade for walks, or to the surface of the ground at the nearest lot lines, as shown on said Plates 19 and 21.

Said parkways shall be leveled and hand-raked, and all rubbish removed to one (1) foot below the finished grade of said parkways.

All surplus excavated material shall be removed from the site of the improvement.

Upon the subgrade as above prepared shall be constructed a one (1) course reinforced concrete pavement with integral curbs, except in Lincolnwood Road, where there shall be constructed a one (1) course reinforced concrete pavement and combined curb and gutter. The width of the pavement herein provided to be constructed, and the radii of the curves at the street intersections and turnarounds, shall be as hereinbefore provided for, and as shown on said Plates 3 to 18, inclusive, and on said plates 19 and 21.

The pavements shall be eight (8) inches in thickness, and the concrete shall be composed by volume of one (1) part Portland cement, two (2) parts sand, and three and one-half (3½) parts gravel or crushed stone, mixed with sufficient water to make a quaking mass. Said concrete pavement shall be reinforced with steel wire fabric in such quantity and of such a weight as shall provide forty (40) pounds of effective steel wire fabric for each one hundred (100) square feet of pavement; said steel wire fabric shall be uniform in character, fibrous, tough, and ductile, and shall have an ultimate tensile strength of not less than seventy-five thousand (75,000) pounds per square inch; said reinforcement shall extend to within two (2) inches of all joints, adjacent pieces of said fabric shall be lapped four (4) inches when the lap is made at right angles to the center line of said pavement, and twelve (12) inches when the lap is made parallel with the center line of said pavement; the steel wire fabric shall have an effective cross-sectional area of not less than 0.086 square inch per lineal foot of pavement length, computing the main tension members only, and the spacing of said members shall not exceed six (6) inches; the cross-sectional area of the effective steel wire fabric per lineal foot of pavement width, shall not be less than 0.026 square inch, and the spacing of these members shall not exceed twelve (12) inches.

The concrete materials for said pavement herein provided to be constructed, shall be mixed in a batch mixer. Said mixer shall be equipped with an accurate automatic water measuring device, and also with an automatic timing device; the mixing shall continue in the drum of said mixer for not less than one (1) minute.

The pavement in all the streets shall extend to the back of the integral curbs, except in Lincolnwood Road, where the pavement shall extend to the roadway edges of the combined curb and gutter.

The curbs shall be constructed integral with the proposed concrete pavements along the edges and on top of said proposed concrete pavements, and the back of said curbs shall be flush with the edges of said pavements, except in Lincolnwood Road, where there shall be constructed combined curb and gutter.

The width of eighteen thousand eight hundred (18,800) feet of said integral curbs three (3) feet below the top of said curbs shall be six (6) inches, and the width of one thousand six hundred eighty (1680) feet of said curbs three (3) inches below the top of said curbs shall be eight (8) inches; the height of said curbs above the gutter line shall be six (6) inches; the total height of integral curb and pavement, measured at the back of said curbs, shall be fourteen (14) inches; the exposed edges shall be rounded as shown on Plate 19 and 20. The concrete for the curbs shall be composed by volume of one (1) part Portland cement, two (2) parts sand, and three and one-half (3½) parts of gravel or crushed stone, mixed with sufficient water to make a quaking mass, except that the exposed surface of said curbs to a depth of one-half (½) inch shall be constructed of mortar composed by volume of one (1) part Portland cement and two (2) parts sand, mixed with sufficient water to make a quaking mass. There shall be constructed three-eighths (⅜) inch open joints through the entire width of the curbs, extending from the top of the curb to the bottom of the pavement, spaced thirty (30) feet apart, and continuous with the transverse joints in the pavement.

The concrete and mortar materials for said integral curbs shall be mixed by hand in a box or in a mixer, but not the one used for mixing the concrete for the pavement. For details of said integral curbs see Plates 19 and 20. Four thousand three hundred fifty (4350) feet of concrete combined curb and gutter shall be constructed in Lincolnwood Road. The body portion of said combined curb and gutter shall be composed by volume of one (1) part Portland cement, two (2) parts sand, and three and one-half (3½) parts of gravel or crushed stone; the exposed surface to a depth of one (1) inch shall be of mortar composed by volume of one (1) part Portland cement and two (2) parts sand. Both mortar and concrete shall be mixed with sufficient water to make a quaking mass; the overall height of curb and gutter shall be fourteen (14) inches, measured at the back of the curbs; the width of said curbs three (3) inches below the top of said curbs shall be six (6) inches; the total width of said combined curb and gutter, as measured at the base, shall be two (2) feet, and the thickness of the gutter shall be eight (8) inches.

The roadway edge of the gutter portion of said combined curb and gutter shall be provided with a trapezoidal joint, and painted with bituminous cement before the concrete pavement is laid; said joint shall be provided with three-quarter (¾) inch round deformed steel bars eighteen (18) inches long, spaced five (5) feet apart, placed through the joint and imbedded in the concrete of the gutter four and one-half (4½) inches below the surface, and extending seven (7) inches into said gutter on one side of the joint, and eleven (11) inches into the pavement on the other side of the joint. Said combined curb and gutter shall be cut into blocks five (5) feet in length, with three-eighths (⅜) inch open expansion joints extending from top to bottom of said combined curb and gutter, spaced thirty (30) feet apart, and continuous with the transverse joints in the concrete pavement. The details for said combined curb and gutter is shown on Plate 21-A.

There shall be constructed in said proposed concrete pavement three-eighths (⅜) inch asphaltic felt transverse expansion joints, normal to the center line of said pavement, and spaced thirty (30) feet apart, extending from the bottom of said pavement to one-half (½) inch above the top of said pavements, and from face to face of integral curbs, or from roadway edge to roadway edge of the combined curb and gutter. Said expansion joints shall be provided with three-quarter (¾) inch smooth, round, steel bars, two (2) feet long, spaced two (2) feet apart, imbedded in the concrete and extended sixteen (16) inches into the concrete on one side of the joint, and the remaining shorter portion of said steel bars, before imbedded in the concrete on the other side of the joints, shall be coated with cup grease and inserted in a one (1) inch inside diameter wrought iron or tin pipe, ten (10) inches long, one (1) end of which shall be closed with a cork in such a manner