

MASTER PLAN OF DRAINAGE – SUBAREA 2 – AMENDMENT

**CITY OF CHINO SPHERE OF INFLUENCE
CHINO AGRICULTURAL PRESERVE AREA**

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MASTER PLAN OF DRAINAGE - SUBAREA 2 – AMENDMENT

PURPOSE

This “Amendment” has been prepared to update the *City of Chino Master Plan of Drainage - Subarea 2, Chino Sphere of Influence, Chino Agricultural Preserve Area*, dated October 2003. This “Amendment” contains hydrology study information for Drainage Basin Areas D, J, and B.

The hydrologic studies estimate the storm water runoff for a 100-year recurrence interval magnitude storm event from each of the Drainage Basin Areas D, J, and B, as described in the original Master Plan of Drainage and revised herein. Tributary storm water runoff has been routed within the drainage basin areas with respect to current existing geographical diversions. Based on the flow pattern of surface runoff, the study area has been redefined into ten (10) Drainage Basin Areas, as shown in the following exhibit, Figure 3. Only Drainage Basin Areas D, J, and B have been revised in this “Amendment”.

This “Amendment” presents revised storm water drainage infrastructure facilities for the ultimate build-out development of the Chino Agricultural Preserve Area within the three Drainage Basin Areas, D, J, and B only. All other drainage basin areas covered in the original Master Plan of Drainage remain unchanged. This “Amendment” must be used in conjunction with the original.

Basin hydrology maps delineating the tributary watersheds for each area are provided in Appendix A. A detailed description of the rationale used to determine drainage basin boundaries follows within this report.

Infrastructure drainage facilities are sized for the peak flow rates at concentration nodes along each storm drain line servicing a drainage basin area. Storm drain facilities and recommended sizes for this “Amendment” have been based on hydrologic calculations using the Rational Method and the Unit Hydrograph Method. Summary of the hydraulic data for the proposed facilities are presented in Table 1, Facility Data Summary Table, provided in Appendix B.

Facilities and sizes in the original Master Plan of Drainage were determined using preliminary hydraulic calculations of friction losses (major losses) in the mainline conduits. The maximum hydraulic gradients of the conduits were set at 85% of the design slope, which was assumed to parallel the existing average ground elevations between concentration nodes. The 15% available capacity of the hydraulic gradient was provided to cover minor losses at junctions, manholes, transitions and bends.

Capital Cost Estimates are outlined and summed in Appendix C. Each drainage facility has a detailed breakdown of construction quantities and capital costs describing each of the recommended storm drain systems. Estimates of construction costs and project costs have been developed using February 2001 construction costs, based on ENR Construction Cost Index of 6,270 for the recommended storm drain facilities shown on the Basin Hydrology Maps. Each Construction Cost total incorporates an additional contingency of 20%. Each of the Capital Cost totals includes an additional 10% of Construction Costs to cover engineering and administration.

Appendix D contains the Hydrologic Calculations and Hydrology Study Maps for each Drainage Basin Area studied and amended, D, J, and B.

EXISTING CONDITIONS

Drainage Area "B" Currently in Drainage Basin "D", as defined by the original Master Plan, facilities belonging to the Chino Airport occupy the central-western one-third and central-southern one-quarter. Midway between Kimball Avenue and Remington Street, along the west side of Basin D, Chino Airport runways protrude easterly into Basin D about one-third of the width of Basin D. North of Kimball Avenue at the intersection of Comet Avenue, aircraft hangers belonging to Chino Airport extend northward to the runways.

Drainage Basin "D" generally drains southerly at less than 1% slope. A mild topographic ridgeline along Walker Avenue precludes runoff from entering the watershed from the east side. East of Walker Avenue, the runoff traverses southeasterly.

Along the northern drainage basin boundary, Merrill Avenue serves as an existing diversion structure to carry all runoff from the north, easterly of Grove Avenue, in an eastern direction beyond Baker Avenue. There, at the intersection of Merrill Avenue and Baker Avenue, Ontario's master planned storm drain; Line "A" passes by the east boundary of Drainage Area "A" conveying storm runoff from approximately 1,362 acres with a peak flow of 1,620 cfs. No runoff is received from Merrill Avenue east of Grove Avenue.

Drainage Area "J" West of Grove Avenue and north of Merrill Avenue is City of Ontario's New Model Colony Drainage Area "B". Historically, Grove Avenue has served as a major storm drainage channel to transport the storm water from the New Model Colony and the City of Ontario northerly of Merrill Avenue. Two-foot tall curbs have been constructed along both sides of Grove Avenue and also Merrill Avenue, in the proximity of Grove Avenue, to help carry the storm water received from the north to the Chino Airport at the south side.

At Merrill Avenue, runoff from the north and west converge into a trapezoidal concrete channel (TCC), which replaces Grove Avenue when it crosses the Chino Airport, south of Merrill Avenue. This flow will eventually be transported south in Grove Avenue to that portion of Drainage Area "D" owned by the Chino Airport via Ontario's master planned Line "B". The storm drain system, with a tributary area of 1,367 acres, has a peak design flow of 1,214 cfs as it enters Drainage Area "D" with additional storm drain interception as it crosses the Airport.

The concentrated flow then travels south of Merrill Avenue across the Chino Airport in a 10'(wide) by 6'(high) TCC, then through dual 6' by 10' box culverts under Runway 8R/26L, then discharges into existing vacant land west of the northern terminus of Grove Avenue.

At the south side of the Airport, the storm water emerges from double 6' x 10' box culverts, and then traverses diagonally southwesterly across a vacant Section of land to arrive at Kimball Avenue just west of Mill Creek Avenue (Cucamonga Avenue).

This naturally vegetated Section of land south of the airport serves as an unimproved storm detention area. The Master Plan of Drainage proposes Channel "J" cross this Section of vacant property owned by the Chino Airport and carry the flow southwesterly to Kimball Avenue.

All runoff west of Grove Avenue and south of the airport drains in a southwesterly direction across natural vegetation toward the intersection of Mill Creek Avenue (Cucamonga Avenue) and Kimball Avenue. At this crossing Channel "J" is proposed by the Master Plan to transport

the runoff southerly from of Kimball Avenue and westerly from Mill Creek Avenue (Cucamonga Avenue) to a location near Pine Avenue and Rincon Meadows Avenue (Bon View Avenue). As the natural geographical channel crosses a depressed portion of Kimball Avenue at Mill Creek Avenue, a sump exists causing the stormwater to flow across Kimball Avenue even during minor storm events.

EXISTING DRAINAGE FACILITIES

Drainage Area "D" Storm Drain "Line D" serves the Drainage Area "D", which originally was bounded by Grove Avenue, Merrill Avenue, Baker Avenue and Kimball Avenue. Detailed investigation has determined with certainty that Drainage Area "D" must be redefined more precisely. In August of 1995, the Chino Airport constructed "7,000' Parallel Runway 8R/26L. This runway and the pair of parallel taxiways now cross Grove Avenue and enter into the westerly portion of Drainage Area "D", as it was originally defined by the Master Plan of Drainage. In doing so, a double 6' x 10' concrete box culverts and a matrix of storm drains were constructed under the runway/taxi-ways along the previous Grove Avenue alignment. The "As built Plans" set for this Project Number 10524 were acquired from the County of San Bernardino Architectural and Engineering Department and were researched and referenced during the preparation of this "Amendment".

In addition to the double 6' x 10' box culverts aligned with Grove Avenue under the runway/taxi-ways, a matrix of 24-inch and 36-inch diameter storm drain pipes were installed on the west and east sides to drain water away from the new runway/taxi-ways to the box culverts. This matrix of storm drains also intercepts the flow from the tributary areas north of the runway/taxi-ways and carries it through the box culverts. Hence, the areas north of the runway/taxi-ways on both east and west sides drain into the box culverts and consequently are tributary to Drainage Area "J", rather than Drainage Area "D". The intercepted storm water enters "Channel J", as it is referred to in the Master Plan, which will cross Kimball Avenue, then Bickmore Avenue, then Pine Avenue, as it travels south toward the Prado Flood Control Basin.

At the east side of the originally defined Drainage Area "D", the Master Plan delineated Baker Avenue as being the eastern boundary. It proposes that the land area south of Merrill Avenue, north of Kimball Avenue, east of Walker Avenue, and west of Baker Avenue, should drain west in Kimball Avenue in a 96-inch diameter storm drain. Close inspection of the in-situ conditions ascertains that this area actually drains east in Kimball Avenue now, in the existing condition, and would also do so in a developed condition.

The Master Plan of Drainage for Subarea 2 originally indicated the accumulated land area to total 469.80 acres at Node D4, although it is 467.02 acres by accurate measurement. Actually, 211.65 of those acres on the west side are tributary to Drainage Area "J". 146.90 of those acres on the east side are actually tributary to Drainage Area "B". The remainder of Drainage Area "D" totals to 108.47 acres. This "Amendment to the Master Plan of Drainage Subarea 2" has been prepared for the City of Chino to clarify the land tributary to these three drainage basin areas.

The Kimball Avenue Storm Drain proposed in the Master Plan will drain the storm water flow from the Subarea "D", acreage. The flow from the acreage previously a part of Area "D" and now added to Area "J" will be drained by the Channel "J" facility. The storm water flow from the eastern portion of the subarea acreage between Walker Avenue and Baker Avenue will be added to Subarea "B". The storm water flow will be transported east in a storm drain in Kimball

Avenue from Walker Avenue to Meadow Valley Avenue, then southeasterly to Hellman Avenue, then south to Mill Creek (Cucamonga Creek Channel), which is tributary to the Prado Flood Control Basin. Ultimately the storm water arrives at the same location originally proposed in the Master Plan, Prado Dam.

Drainage Area "J" Existing storm drainage facilities within Drainage Area "D" are primarily in the west, south and central portion of the drainage area and service the needs of Chino Airport facilities. There now exists a double barrel 10-foot wide by 6-foot high reinforced concrete box that extends north across the Chino Airport Runway/Taxi-ways 8R/26L, thence as a trapezoidal concrete channel, extends north across the airport property to Merrill Avenue. There, it intercepts the City of Ontario's stormwater from New Model Colony's Drainage Area "B". The Unit Hydrograph peak flow of 1,214 cfs is transported through Drainage Area "D" in this Grove Avenue Storm Drain Channel and box culvert with additional flow intercepted from the new Runway/Taxi-ways 8R/26L and their associated storm drain matrix, as discussed previously.

The existing Chino Airport hangers in the south-central portion of Drainage Area "D", as defined by the original Master Plan, just north of Kimball Avenue, have their own storm drain system that drains first north to a 24 feet wide concrete trapezoidal channel, then west in a 42-inch CMP culvert and a 36-inch RCP storm drain to the double 6' x 10' box culvert at the existing Grove Avenue alignment under Runway 8R/26L.

The concrete trapezoidal channel just north of the hangers also intercepts all flow from the original Drainage Area "D" that is due north of it, all the way north to Merrill Avenue. It diverts all flow in the central portion of the original Drainage Area "D" to the Grove Avenue double 6' x 10' box culvert, which in turn transports the flow through Drainage Area "J". Thereto, this area is tributary to Drainage Basin Area "J", rather than "D".

From Kimball Avenue northward along Grove Avenue, the grade of Grove Avenue drops northerly, draining toward the runways. An existing grated sump inlet immediately east of the Grove Avenue northern terminus and south of the runways allows runoff to drop into a short lateral that discharges into the interior of the existing double 6' x 10' RC Box culverts. At about 200 feet south of the airport and 600 feet north of Kimball Avenue a 24" RCP culvert crosses Grove Avenue from the east side to the west side. No runoff drains toward Kimball Avenue east of Grove Avenue and west of the airport hangers. The area south of the airport, north of Kimball Avenue, east of Grove Avenue, and west of the airport hangers, all drains north and west to the vacant airport property in Drainage Area "J". For these reasons, it is not proposed to extend a storm drain lateral northward in Grove Avenue. Rather, it is concluded the property north of Kimball Avenue, south of the runways, east of Grove Avenue, and west of the airport hangers will continue to be drained northwesterly to the proposed "Channel "J" in Drainage Area "J".

Record Drawings and As-built plan sheets for these Airport facilities have been provided in conjunction with this "Amendment" as back-up data for reference and as documentation of the true definition of the boundaries of Drainage Area "D". Referring to Sheet D-32 of the "7000' Parallel Runway 8R/26L, Chino Airport" plan set, note the 24-inch reinforced concrete pipe (RCP) culvert crossing Grove Avenue. The now existing culvert is about 600' north of Kimball Avenue centerline and 200' south of the northerly terminus of Grove Avenue, just south of the south Taxi-way 8R/26L. The RCP culvert carries the flow from that portion of the original Drainage Area "D" west of the Airport hangers, north of Kimball Avenue, and south of

Runway/Taxi-ways 8R/26L, westerly across Grove Avenue to Drainage Area "J", which transports the flow south via "Channel J".

Drainage Area "B" As a revision to the Master Plan of Drainage for Subarea 2, the portion of Drainage Area "D" east of Walker Avenue and West of Baker Avenue actually drains east in Kimball Avenue rather than west. That area north of Kimball Avenue to Merrill Avenue is tributary to Mill Creek (Cucamonga Creek Channel) via the new alignment of Meadow Valley Avenue, which will carry the storm water southwesterly to Hellman Avenue, then south to Mill Creek (Cucamonga Creek Channel). This street did not exist during the inception of the original Master Plan of Drainage, but is more correct than diverting the flow west along Kimball Avenue.

In Walker Avenue, north of Kimball Avenue, the original Master Plan proposed a 48-inch RCP lateral pipe. The Hydrology Study in this "Amendment" report has been performed in a manner to determine and verify the 48-inch diameter size.

As Drainage Area "D", as proposed in this "Amendment", slopes southerly from Merrill Avenue toward Kimball Avenue all runoff between Walker Avenue at the west boundary, to Baker Avenue at the east boundary, will be intercepted by a 78-inch RCP Storm Drain in Kimball Avenue and carried southeasterly.

The portion of Drainage Area "D" defined by the original Master Plan southerly of Merrill Avenue to Kimball Avenue and from Walker Avenue on the west, to Baker Avenue on the east, is tributary to Drainage Basin "B" and should outfall at Mill Creek, as does Basin B". All areas south of Kimball Avenue and east of Walker Avenue slope southeasterly toward Mill Creek. Ultimately, the stormwater will eventually arrive in Prado Flood Control Basin.

Rational Method Hydrology Hydrologic calculations were prepared using the Rational Method and the San Bernardino County Hydrology Manual. This study includes calculations for the 100-year, 1-hour storm event. Proposed storm drain systems were sized with the capacity to carry the runoff flow from the 100-year, 1-hour storm event.

The Rational Method was used to calculate the peak runoff at each concentration node along the path of Storm Drain Line "D" and "Line "B". Surface characteristics of pervious areas were based on ultimate development built-out conditions, having well-landscaped urban covers and saturated antecedent moisture condition, AMC III. Point rainfall data was based on the Isohyetal Maps for Valley areas, provided in the San Bernardino County Hydrology Manual.

Land Use Land Use zoning indicates the property immediately north of Kimball Avenue is zoned AR that will be developed into "Airport Related" improvements. South of Merrill Avenue, west of Baker Avenue, and north of the existing runways, the property is zoned PF for development of "Public Facilities". East of Walker Avenue, west of Baker Avenue, and south of Merrill Avenue, the property is zoned LI for development of "Light Industrial" facilities. All three of these Land Use zones are proposed to be non-urban and non-commercial land uses with well-landscaped development. The impervious area is intended to average at 75% or less for all three Land Use designations, according to the interpretation of "The Preserve Specific Plan".

Although development of the property north of Kimball Avenue will increase the impervious area, the stormwater runoff will increase only slightly, as a result the increase of landscaping. The current land use for dairies does not allow stormwater to percolate into the soil and

consequently achieves saturation very quickly. The condition of the existing dairy soil has no vegetation to promote retention of rainfall and storm water becomes runoff quite rapidly. With the assumption of Antecedent Moisture Condition III used in this study, as required by the County Hydrology Manual, saturation of the soil is a given for the Developed Condition. In the Developed Condition, the increase of vegetation in the landscaping of the pervious area will provide greater retention of rainfall and therefore reduced runoff. As the designated Land Uses for this property are all to be well landscaped and 25% pervious, only moderate increases in stormwater runoff are anticipated when the property attains ultimate developed condition.

The Hydrology Map for amended "Basin D" is included following in this report as Figure 5. The original Master Plan of Drainage showed "Basin D" as the drainage area north of Kimball Avenue, east of Grove Avenue, south of Merrill Avenue and west of Baker Avenue. "Basin D" is generally bounded on the north side of Kimball Avenue by land that is currently vacant natural vegetation; Chino Airport related uses or agricultural land. The western boundary of "Basin D" was an extension of Grove Avenue from Kimball Avenue on the south to Merrill Avenue on the north, although no through street crosses the eastern 20% of Chino Airport's east-west runway. Baker Avenue was at the original eastern boundary. There, no street exists, as the land is all open dairy pasture sloping in a southeasterly direction. This "Amendment" relocates the eastern boundary in its true location along the subtle rise of Walker Avenue. This report amends the original Master Plan, providing true boundary limits for Drainage Areas "D", "J", and "B".

The Master Planned Kimball Avenue Storm Drain "Line D" is proposed to extend east to intercept flows draining from as far north as Merrill Avenue and from as far east as Walker Avenue. The original Master Plan proposed a 96-inch diameter Reinforced Concrete Pipe in Kimball Avenue from Mill Creek Avenue (Cucamonga Avenue), at the westerly outfall, easterly to Main Street, which is centered just south of the Chino Airport hangers. In Kimball Avenue from Main Street to Walker Avenue, the original Master Plan proposed a 78-inch RCP.

OFF-SITE DRAINAGE FACILITIES

Drainage Area "D", as defined by the "Master Plan of Drainage – Subarea 2" has been redefined to include only flow tributary to Kimball Avenue west of Walker Avenue and east of Grove Avenue. Stormwater runoff tributary to the proposed storm drain system includes 108.47 acres. Currently, storm water from properties north of the drainage area watershed are intercepted by Merrill Avenue and diverted easterly to the existing concrete trapezoidal channel in Grove Avenue or from easterly of Grove Avenue, will be diverted easterly to Baker Avenue.

Storm water runoff from the City of Ontario to the north, bypasses Drainage Area "D", along both east and west boundaries. The "*Master Plan of Drainage - Subarea 2*", for the City of Chino, proposes two storm drain systems to further aid this process. Ultimate 100-year storm runoff from Ontario's Master Plan of Drainage for New Model Colony, prepared by L.D. King, Inc., will be conveyed to downstream regional drainage facilities. Line "A", a 14' wide and 8' high reinforced concrete box storm drain is proposed to cross Merrill Avenue in Baker Avenue, conveying 1,620 cfs peak flow from 1,362 acres. It will divert flow from north of Merrill Avenue eastward from Baker Avenue as it passes Drainage Basin D.

Line "B", a 108" RCP storm drain proposed for Grove Avenue north of Merrill Avenue, plus a 72" RCP lateral storm drain in Merrill Avenue west of Grove Avenue, will drain to the existing 10' wide by 6' high Grove Avenue trapezoidal concrete channel (TCC) crossing the Chino

Airport property. These two storm drains combined will discharge 1,214 cfs into the Grove Avenue TCC where it will by-pass Drainage Area "D" along the western boundary.

LAND USE

Land Use zoning and the associated development requirements have been extracted from "The Preserve Specific Plan" prepared for the City of Chino and dated March 2003. The identical land uses for these properties are shown in Figure No. 2, Land Use Map, in the *Master Plan of Drainage- Subarea 2*.

Between Grove Avenue and Baker Avenue, immediately north of Kimball Avenue, the designated Land Use is Airport Related. North of that property which is fronting on Kimball Avenue, the Land Use is Public Facility west of Walker Avenue and Light Industrial east of Walker Avenue.

PEAK RUNOFF FLOWS

Hydrology calculations were prepared using the Rational Method and the San Bernardino County Manual. This study includes hydrology calculations for the 100-year, 1-hour storm event. The storm drain system was sized using hydraulic calculations to provide the capacity to transport peak flows from the 100-year, 1-hour frequency storm, while ensuring at minimum, a hydraulic grade line 0.5-foot lower in elevation than the gutter flowline along Kimball Avenue. "The Preserve Specific Plan" was referenced to determine criteria for the Runoff Coefficient "C" to be used in the Rational Method formula, $Q = CIA$, for each of the three zoned Land Uses.

For Light Industrial (LI) land, permitted uses included light manufacturing, office parks, cemeteries, kennels and catteries. The minimum allowable landscape coverage is 15%. Based on the permissible land uses including large open vegetated areas, such as cemeteries and parkscapes, the Pervious Area factor was estimated to be around 25%. For Soil Type B, the SCS Curve Number for Antecedent Moisture Condition III was calculated at 75.80 with a Max loss rate (Fm) of 0.110 (in./Hr.). The hydrologic calculations produced an average Effective Runoff Coefficient "C" of 0.854 for Light Industrial land use.

For Airport Related (AR) land use, the permitted uses included business parks, hotels, cemeteries, kennels and catteries. The minimum allowable landscape coverage is 15%. Based on the permissible land uses including large open vegetated areas, such as cemeteries and parkscapes, the Pervious Area factor was estimated to be around 25%. For Soil Type B, the SCS Curve Number for Antecedent Moisture Condition III was calculated at 75.80 with a Maximum loss rate (Fm) of 0.110 (in./Hr.). The hydrologic calculations produced an average Effective Runoff Coefficient "C" of 0.854 for Airport Related land use.

For Public Facilities (PF) land use, the permitted uses included minor utility facilities, row crops, museums, places of worship and cemeteries. Based on the permissible land uses including large open vegetated areas, such as cemeteries and parkscapes, the Pervious Area factor was estimated to be around 25%. For Soil Type B, the SCS Curve Number for Antecedent Moisture Condition III was calculated at 75.80 with a Maximum loss rate (Fm) of 0.110 (in./Hr.). The hydrologic calculations produced an average Effective Runoff Coefficient "C" of 0.854 for Public Facilities.

In conclusion, by referencing "The Preserve Specific Plan" to determine criteria for the Runoff Coefficient "C" to be used in the Rational Method formula, $Q = CIA$, the Pervious Area factor, soil type, and degree of saturation are identical for all three of the zoned Land Uses. Therefore, for Public Facilities (PF), Airport Related (AR), and Light Industrial (LI) land uses, an average Effective Runoff Coefficient "C" of 0.854 should be used in the Rational Method formula for all.

PROPOSED DRAINAGE FACILITIES

This *Master Plan of Drainage – Subarea 2 Amendment* report provides a Hydrology Map for Drainage Basin D that estimates the acreage and ultimate peak runoff at nodes D1 thru D4. Node D1 is at the northerly/upstream end near Merrill Avenue and Node D4 is at the outfall.

The calculations determined the need for a 54" reinforced Concrete pipe (RCP) for the main line from just west of Walker Avenue to Mill Creek Avenue (Cucamonga Avenue) at the outfall. The ultimate peak runoff discharge at the outfall calculated to be $Q_{100} = 140.664$ cfs. As a result of the storm drain flowing under pressure in this reach, the pipe size was increased to 54" to keep the hydraulic grade line (HGL) a few feet below gutter flowline.

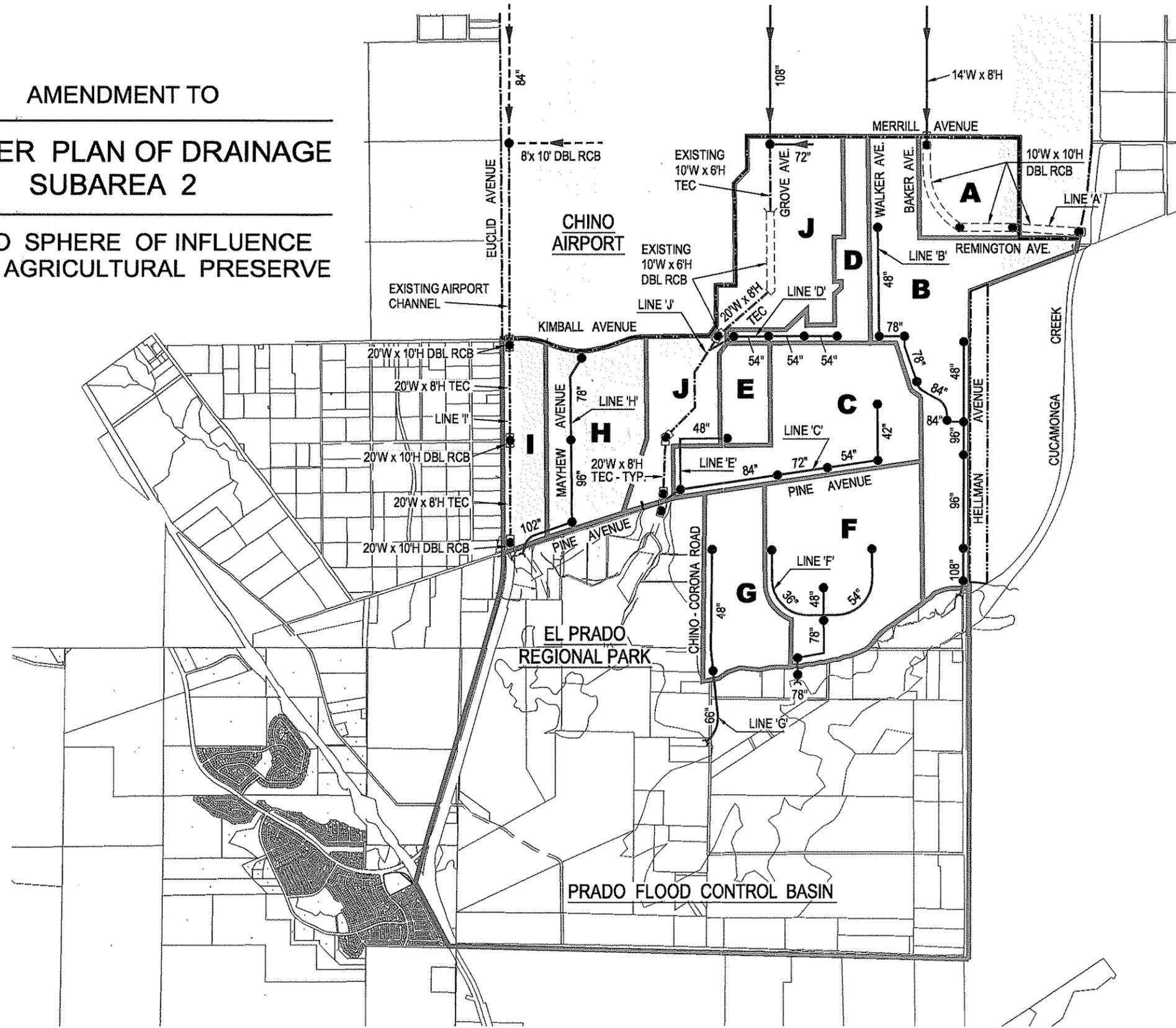
The calculations did verify the need for a future 48" RCP in Walker Avenue to be constructed by others when the land north of Kimball Avenue is developed. The original Master Plan recommended a 78" RCP draining from Walker Avenue into the west bound Kimball Avenue storm drain and now that main line will drain east, rather than west.

The storm flows intercepted along Kimball Avenue will be conveyed westerly by a 54-inch diameter storm drain, as proposed by this "Amendment". This 54-inch RCP storm drain will carry runoff to Channel "J", southwesterly of the intersection of Kimball Avenue and Mill Creek Avenue (Cucamonga Avenue), in accordance with the original Master Plan of Drainage.

The results of the study calculations for this "Amendment" provides 54" RCP storm drain for the full length of Kimball Avenue draining west as Line "D" and 78" RCP for Line "B" line draining east. The drainage facilities proposed for Drainage Basin Area "J" remain as proposed in the original Master Plan of Drainage. Channel "J" will be a 20' wide, by 8' high Trapezoidal Earthen Channel with 20' x 8' double reinforced concrete box culverts crossing Kimball Avenue, Bickmore and Pine Avenue.

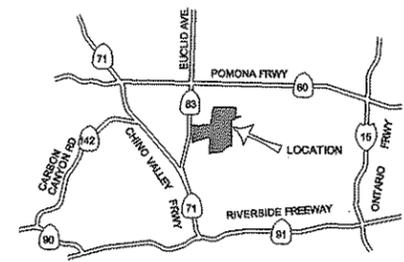
AMENDMENT TO
**MASTER PLAN OF DRAINAGE
 SUBAREA 2**

CHINO SPHERE OF INFLUENCE
 CHINO AGRICULTURAL PRESERVE



LEGEND

LINE 'D'	STORM DRAIN SYSTEM
[Symbol]	STORM BASINS
[Symbol]	STUDY AREA BOUNDARY
[Symbol]	OFF-SITE TRIBUTARY AREAS
D	DRAINAGE BASIN IDENTIFICATION
[Symbol]	MAINLINE STORM DRAINS
[Symbol]	DOUBLE RCB
[Symbol]	TRAPEZOIDAL EARTHEN CHANNEL (TEC)
[Symbol]	EXISTING STORM DRAIN



SCALE 1"=3000'

LDKING
 Engineers/Planners/Surveyors

2151 Convention Center Way
 Suite 100 B
 Ontario, California 91764-4464
 Phone: (909) 937-0200
 Fax: (909) 937-0202