



County Administration South  
601 North Ross Street  
Santa Ana, CA 92701

P.O. Box 4048  
Santa Ana, CA 92702

(714) 667-8800

info@ocpw.ocgov.com

OCPublicWorks.com



Administrative Services



OC Development Services



OC Facilities Design & Construction Management



OC Facilities Maintenance & CUF



OC Fleet Services



OC Construction



OC Environmental Resources



OC Operations & Maintenance



OC Infrastructure Programs



OC Survey



This checklist is intended to be used for **Street Improvement and Storm Drain Plan** applications for projects located within the Ranch Plan Planned Community and processed through Land Development under a Reimbursement Agreement (RA). Plans must be submitted via the Land Management System (LMS) at: <https://myOCeServices.ocgov.com>

The following basic documents are required to apply for a street improvement and storm drain permit; additional information may be required by the OC Building Official based on individual project conditions.

## Street Improvement and Storm Drain Plan Submittal Requirements - **Builder & Non-Backbone Projects (including Private Alleys)**

1. **Permit Application** – Provide an electronic copy of completed application via <https://myOCeServices.ocgov.com>
  - a. **Description** – Clearly describe the entire project proposal and scope of work consistent with the submitted plans.
  - b. **Financially Responsible Party (FRP)** – Designate a FRP and an active trust account. FRP shall match the owner of the trust account provided in the application.
  - c. **Other Approvals/Related Permits** – List all other related, previous and concurrent, applications and permits.
2. **Notarized Agent Authorization Letter**
3. **Concurrent Processing Letter**
4. **Street Improvement and Storm Drain Plan** – Plans must be stamped and signed by the licensed Engineer.
5. **Plan Check Deposit** – Provide initial deposit required at the time of submittal for plan check. Refer to RA plan check deposit schedule.
6. **Bond Estimates** – Provide Engineer’s Quantity Take-off / Construction Cost Estimate
7. **Sewer, Water and Recycled Water Improvement Plans for Reference Only** – Draft plans are acceptable during plan check. Approved plans by Santa Margarita Water District (SMWD) are required for final plan check and approval.
8. **Fire Master Plan for Reference Only** – A copy of approved Fire Master Plan shall be attached to the final street improvement plan set for signature.

## Supporting Documents

9. Geotechnical Report
10. Hydrology and Hydraulic Report
11. Water Quality Management Plan (WQMP)
12. Deviation Request Letter – See Attachment 1 for details.
13. Structural Design and Calculations
14. Copy of Final Tract or Parcel Map for reference only
15. Copy of corresponding Grading and Utility Plans for reference only

**NOTE:** All supporting documents that are concurrently being submitted and reviewed are subject to plan check under each separate permit. Comments made on other plans may affect these plans and require design modifications/responses.

## Street Improvement and Storm Drain Plan Review Checklist

Project Title: \_\_\_\_\_

Facility No.: \_\_\_\_\_

Checked By: \_\_\_\_\_

Tract/PM No.: \_\_\_\_\_

Checked Date: \_\_\_\_\_

DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
<b>General</b>					
Review conditions of approval for tentative tract/parcel maps and other related permits for special conditions, approved deviations, and modified OCPW Standards, etc.					
Caltrans right of way requirements and standards implemented, if necessary. – Provide a copy of Caltrans submittal plans for coordination purposes only.					
Drainage acceptance letter at upstream and downstream					
Structural calculations must be submitted with plans, including a retaining wall, R.C.B. or bridge, unless the structure is taken directly from the Standard Plans.					
The following factors are utilized in SD acceptance determination: <ul style="list-style-type: none"> <li>• Facility must convey some public water.</li> <li>• Device cannot exclusively drain private property.</li> </ul> Refer to Attachment 2, “Consideration of County Maintenance of Storm Drains”.					
All sheets in the final plan set must have signatures and stamps by a licensed engineer.					
<b>Drafting</b>					
Refer to OCPW CAD Standards Manual for drafting requirements.					
Sheet size, scale and margin					
Border & title block					
Revision block					
Signature blocks (Engineer, Traffic Engineer, OCPW, Sewer and Water Agency, etc.)					
All sheets must be labeled consecutively, “Sheet ____ of ____” in the lower right corner.					

DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
Use of standard symbols					
<b>1. Title Sheet</b>					
Project title and description <ul style="list-style-type: none"> <li>• Be consistent with referenced conditions of approval</li> <li>• Identify tract, planning area/subarea</li> </ul>					
Index of sheets					
Benchmark					
Basis of bearing					
Vicinity and Location maps					
Legal description					
General notes					
Legend of abbreviations and symbols					
Approved Deviations and Alternative Development Standard - Deviations to meet County ordinance section 6-2-13					
Funding source and agreements					
Identify maintenance ownership					
Utility contacts and phone numbers					
Quantity take-off, verify quantities.					
Developer/Owner name & contact info					
Dig alert					
Subject permit number and related permit/application numbers					
Conditions of approval of associated tract(s) concerning street improvements					
Licensed engineer's stamp and signature, company, address, and date on plans.					
Index/Key Map <ul style="list-style-type: none"> <li>• Utility lines in streets</li> <li>• Numbers of adjacent tracts</li> <li>• Lot configuration and lot lines</li> <li>• Final tract boundaries</li> <li>• Street names</li> <li>• Scale</li> <li>• North arrow</li> <li>• Identify limits of each plan sheet</li> <li>• City, County, or other jurisdictional limits</li> </ul>					
<b>2. Plan Sheet: Plan View</b>					

DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
North arrow points to top or right of sheet.					
Existing improvements shown dashed with all plan reference - file numbers noted					
Street, alley and easement labeled and dimensioned – indicate “public” or “private” where applicable					
Construction notes					
Match line and sheet reference					
Property lines					
Lot numbers/letters					
City, County, or other jurisdictional limits, where applicable					
Limits of construction					
Other improvements noted on plan and references to any details					
OCPW Standard Plans referenced					
For streets, maintenance responsibilities to be identified – “Private” or “Public” delineation at ROW.					
For storm drains, designate all SD lines showing “Private” or “Public” delineation at ROW for lines conveying public flows. If SD lines solely convey private flows, SD must be labeled to be privately maintained to the mainline connection or where co-mingling of private and public flows occurs.					
<b>2.1 Street Improvement Plan</b>					
Typical street cross-sections per OCPW Standard plan and to match with the approved tentative tract map. Check the followings, but not limited to: <ul style="list-style-type: none"> <li>• R/W width</li> <li>• number of lanes</li> <li>• lane widths</li> <li>• grades</li> <li>• median</li> <li>• shoulder width</li> <li>• sidewalk width</li> <li>• parkway width, etc.</li> </ul>					
Improvements to be constructed: <ol style="list-style-type: none"> <li>1. Proposed paving shown shaded</li> <li>2. Joins</li> </ol>					

DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
<b>Stationing:</b> 1. All stationing should refer to the centerline of street, unless otherwise noted. 2. Stationing to read from left to right on sheets and run from south to north or west to east. 3. Label major stations with tick marks at every 50-ft along the centerlines. 4. Negative stationing is not allowed.					
Station equations at all intersections					
Centerline bearings of all streets and alleys					
Curve data table					
Bearing and distance					
Curb return - BCR and ECR					
Curb, gutter and sidewalk					
Existing facilities					
Proposed storm drain					
Driveways					
Access ramps at all intersections, with type no. per SP1115. Provide individual ramp details specific to each site location, including grades, distances, elevations, etc.					
Local depression details – a modified depression is required for inlets in raised medians.					
Special paving details (i.e. patterned stamped concrete at turnarounds, guard gates, private entries, etc.)					
Sidewalk drain type per SP1309					
Landscaped Medians per SP1114 1. Determine that maintenance has been provided. 2. Check for median drains.					
Check for proper drainage – show proposed contours on plan view.					
Check intersections for cross-gutters and landing pad profile.					
Cross gutter is not allowed in Collector Street.					
<b>2.2 Storm Drain Plan</b>					
SD mainline and laterals are shown.					

DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
Junction structure type, stations, angle and additional data (C, D1, D2, etc.)					
Inlet type, station, length and height					
Manhole location and spacing per Local Drainage Manual (LDM)					
SD easements per LDM					
Hydraulic Data Table – Provide range of values consistent with the HH calc. report: <ul style="list-style-type: none"> <li>• Design Q frequency</li> <li>• Design Q flow</li> <li>• Design Vmax</li> <li>• Pipe diameter</li> <li>• Pipe n value</li> <li>• Pipe flowline slope, s</li> <li>• Pipe friction slope</li> <li>• Normal depth</li> <li>• Critical depth</li> <li>• HGL elevations</li> </ul>					
Stationing: <ol style="list-style-type: none"> <li>1. All stationing should refer to the centerline of storm drain, unless otherwise noted.</li> <li>2. Stationing to read from left to right on sheets and run from south to north or west to east.</li> <li>3. Negative stationing is not allowed.</li> </ol>					
Centerline curve data					
Show structures crossing					
SD centerline and stationing of BC and EC					
Ties to street centerline at SD ends and at centerline of inlets					
Median drain tie to SD					
Street name and stationing					
Angle point stationing					
Pipe bedding per SP1319 for all RCP					
Local depression details - reference street imp. plans					
Planning of MH and CB locations to ensure they will not be located within a narrowed roadway creating a risk when involved in maintenance and Emergency Services.					

DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
Designation on all SD lines showing “Private” or “Public” delineation at ROW for lines conveying public flows. If SD lines solely convey private flows, SD must be labeled to be privately maintained to the mainline connection or where co-mingling of private and public flows occurs.					
<b>2.2.1 SD Design Criteria</b>					
Minimum cover 30” in roads					
Cover over 20 ft, refer to LDM					
Minimum pipe slope, 0.001					
Minimum pipe velocity, 3 fps					
Minimum pipe size, 18”					
Pipe aligned in outside lane or parking					
Alignment away from slopes and ret. walls					
RCP velocity > 20 fps, use 1.5” steel clearance					
RCP > 40% slope, use cut off walls					
pH less than 6.5, RCP special design					
Soil sulfate > 2,000 ppm, RCP special design					
CSP, plastic, etc., refer to LDM					
<b>3. Profile</b>					
Scale: <ul style="list-style-type: none"> <li>• Horizontal (1” = 20’ typ., or 1” = 40’)</li> <li>• Vertical (1” = 4’ typ., or 1” = 8’)</li> </ul>					
Datum at both edges of sheet					
Stationing to increase from left to right of sheets and noted at bottom of profile grid (100-ft interval) – align stationing for Plan and Profile.					
Elevation to be noted at each edge of profile grid (5- or 10-foot intervals)					
Street centerline and name where it crosses profile.					
<b>3.1 Street Improvement Plan</b>					
Centerline profile					
Top of curb profiles					
Label existing ground (dashed line)					
Label proposed finished surface with grade in percent (solid line)					

DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
Channel, ditch, and gutter grade lines with grade in percent					
Station: 1. At all BC, EC, PRC, and PCC 2. At all grade breaks and equations 3. At beginning and end of bridge					
Elevation: 1. At each edge of major grid lines 2. At all BVC, EVC, PRVC, and PCVC, equations, BCR, ECR and quarter-delta points 3. At beginning and end of bridge 4. At every 100-ft station and all intersections					
All grades noted at grade breaks, beginning and end of vertical curves, and point of intersections (PI)					
Grades on existing E.P. at all joins to existing improvement.					
Insert standard symbol for grade breaks (circle)					
Vertical curves are required for grade breaks greater than 0.5%.					
Vertical curve lengths & PI elevations					
Super-elevation transition diagram (above corresponding profile) – Check for crown runoff, transition, rate, 1/3 and 2/3 L.					
Check profile for minimum grade (1% at flow lines) and maximum grades.					
Check for drainage at low points.					
<b>3.2 Storm Drain Plan</b>					
Proposed SD mainline and lateral profiles with grade/slope indicated.					
Label existing ground (dashed line)					
Label proposed finished surface (solid line)					
Show hydraulic grade line (HGL)					
Indicate pipe length, size, material, D-load, Q and V on profile below each pipe segment.					
Show location of utilities crossings.					
Station and Elevation 1. At all grade breaks and equations					



DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
2. At angle point 3. At beginning and ending of junction structures and at inlets. 4. Manhole rim 5. BC and EC of pipe 6. Inlet TC or TG 7. Utilities crossing 8. At joins					
Elevation shown at SD and top of MH to ensure requirements are met for MH Landings per LDM.					
<b>4. Bikeways</b>					
Located per tentative tract map					
Graded width and striping per OCHDM					
Check for clearance from any fixed objects					
Verify 18" min. clear from curb face					
Provide min. clear recovery zone if no curb or on high speed roads, or provide appropriate protection (i.e. guardrail, barrier, crash cushion, etc.) to meet the County requirements.					
Indicate maintenance agreements / responsibility (O&M)					
<b>5. Traffic Index and Structural Section</b>					
Use OC TI Handbook methodology					
Use OC traffic generation rates					
Document sources of Arterial and Collector traffic volumes					
TI's shown on map					
Collector/Local St. TI > 5.0, use 20-yr design					
R value sample points shown on map					
R value results documented					
Minimum section (Table 605.1B)					
Ratio AC/AB > 0.25					
Check street sections to match the Geotechnical report.					
Check horizontal alignment for proper design speed, B.C.'s, E.C.'s, bearings and intersection sight distance, etc.					

DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
Check vertical alignment for proper design speed, stopping sight distance, lengths of vertical curves, etc.					
Minimum tangent between reversing curves on arterial highways, 400-ft					
Verify that a proper transition from the higher classification arterial highway is provided if the highway changes classification.					
<b>6. Street Lights and Lumens</b>					
<b>General</b>					
Refer to OCPW SP1411 for street light requirements.					
All lights shall be HPSV or equivalent LED. 1. Place on alternating sides of street spacing 2. May be up to 110% of SP spacing 3. Spacing > 110% of SP spacing, Add a light pole					
Local and Collector 1. Locate at property line or at ECR 2. 5,800 lumen HPSV light 3. Spacing of poles at 300 feet 4. Do not place on local/collector islands					
Special Locations 1. At throat of cul-de-sac 2. At knuckle at outside PL (preferred) or inside BCR					
Intermediate Lights 1. Uniform spacing between spec locs and intersections					
Roundabouts 1. RT ECR for entering traffic 2. RT ECR for exiting traffic					
<b>Arterials</b>					
Intersections 1. 3-way with Local: 1 light - 22,000 lumens at stem 2. 4-way with Local street: 2 lights - 22,000 lumens at ECRs on arterial 3. Intersection of two (2) Arterial: 4 lights - 30,000 lumens at ECRs					
Intermediate 1. Uniform spacing between intersections 2. On alternating sides of streets a. Secondary 16,000 lmn. at 200 ft					

DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
b. Primary 16,000 lmn. at 200 ft c. Major 22,000 lmn. at 200 ft					
Intermediate in median (uniform between Int.) 1. Primary dbl 9,500 lmn. at 200 ft 2. Major dbl 9,500 lmn. at 180 ft					
List quantity of light poles installed per street within County ROW (O&M)					
<b>7. Traffic Signal</b>					
Check for traffic signal conduits and pull boxes at intersections where developer is required to design and construct or provide a cash deposit for a future signal.					
<b>8. Striping and Signage</b>					
Striping and signage requirements per OC Standards and Manuals, and CA MUTCD					
Street name sign per SP1407					
Check for consistency with fire master plan					
Check for consistency with street imp. plan (e.g., total street width, etc.).					
Check for special conditions (e.g. bike lanes, NEV markings, etc.)					
<b>9. Inlets and Outlets from/to Natural Channel</b>					
Depth at inlet per Hydraulic calculations					
Riprap to 1.5 ft above Q10 tailwater					
Riprap 10 feet upstream of inlet structure					
Scour Protection: 1. Length per Table 8-2 of LDM, min. 25' 2. Height to match the depth of flow 3. Gradation of riprap per SP1809 or as designed 4. To be installed downstream of energy dissipater					
Energy dissipaters per LDM, Ch. 8					
Provide boundary of inlets/outlets limits for feasibility of service roads to outer extent of maintenance responsibility.					
<b>10. Miscellaneous</b>					
Plan check, inspection and bond amount fee calculations should generally be performed on the second submittal.					

DESCRIPTION	PLAN CHECK				COMMENTS
	1st	2nd	3rd	4th	
Verify that additional right-of-way, to the back of curb return, is provided where private streets intersect public streets for pedestrian crossing.					
Ensure that adequate pedestrian facilities are provided, including condominiums and apartments, and provide a minimum 4' clear sidewalk (may require meandering around fire hydrants, street signs, bus benches, etc.)					
Maintenance agreements / O&M manuals for basins (O&M)					
Check Attachment 3 - "Regulation Compliance Matrix" for conditions that may be applicable to the street imp. project.					

Reviewed By:

---

Printed Name:

---

Date:

---

Company:

---

## Attachment 1

---

### Deviations/Design Exception Requests

The Deviation/Design Exception Request (Request) documents engineering decisions leading to the approval of each exception to a design standard. It is essential that adequate records are prepared and preserved to document such decisions and approvals. The engineer of record must identify proposed nonstandard design features, prepare a Deviation/Design Exception Request for review and resolve all plan check comments to the satisfaction of County staff. If all comments are satisfied, the Request may then be circulated for approval by the Director of Public Works or the person to whom approval authority has been delegated. The Request must contain the following information:

- Cover Sheet (will contain approval signatures and engineer's stamp)
- Project Description
- Existing conditions (not applicable in this case)
- Proposed work and nonstandard features – describe work to be done and nonstandard design element that required the exception
- Standard for which the exception is required – be specific, name the source (County Standard from which the deviation is requested)
- Accidents (if applicable)
- Design year traffic volumes – 20 year forecast (if applicable)
- Description of any additional work to enhance safety – mention any additional work which would qualify for safety enhancement such as slope flattening, super correction, elimination of roadside obstacles, etc.
- Reasons for requesting exception- be thorough but brief (land form configurations, value engineering and character of the community are not acceptable engineering reasons)
- Provide scaled drawings, technical documents and/or other exhibits to assist in reviewing the request
- Provide cross sections and/or special details to clearly illustrate the proposed condition for each location that does not meet the standard
- Letters, resolutions, traffic study summaries, etcetera should only be attached if requested
- The Request shall be signed and stamped by the Engineer of Record

## Attachment 2

---

	<b>Consideration of County Maintenance of Storm Drains</b>	300 N. Flower Street
		714.667.8888 714.667.8885
ocpCustomerCare@ocpw.ocgov.com   www.ocplanning.net		

The following factors are typically used by County of Orange in consideration of request from developers/clients for County/public maintenance of drainage facilities:

- Facility must convey some public water.
- County of Orange maintenance does not include OCFCD facilities.
- Must meet the Flood Protection Goals, the County's Local Drainage Design criteria and County Standard Plans.
- Construction Plans must be approved by RDMD/PDS/Subdivision Manager/designee.
- Maintained by Road Funds so some water must come from public streets or related drainage.
- Device cannot exclusively drain private property.
- Drains must be in public roadway, within public property or in an area that has a public easement area dedicated to the County.
- Lateral or mainline that exclusively drain private areas should be privately maintained.
- County does not want systems with public inlets only at the upstream portion of the system.
- County must be able to maintain the device/facility, utilizing similar maintenance efforts expended for similar devices/facilities in other parts of the County and said device/facility must not create undue or unique burden on the County to maintain.
- Easements adequate for access and maintenance must be provided.
- Inclusion of a storm drain in a Master Plan of Drainage or the assignment of a facility designation (e.g., L02P13) does not guarantee the facility will be maintained by the County.

## **Attachment 3**

---

### **Regulation Compliance Matrix**

See the next pages.

Item No.	Cross Reference Column	Source	Condition, Mitigation, Public Benefit or Entitlement Provision	Timing	Subject	Keywords	Title	Requirements or Entitlement Provisions	Reviewing / Approving Authority (Advisory Agency in Parentheses)	Form of Compliance	Guidance for Compliance	Area Application
121.2	122-124 (MM 4.9-22)	EIR 589	MM 4.9-22 (cont.)	Prior to completion of a Project Report for Cow Camp Road	Biological Resources	Cow Camp Road, Wildlife Movement	Roadway Design to Facilitate Wildlife Movement	Prior to completion of a Project Report for Cow Camp Road, the applicant shall demonstrate to the satisfaction of the County's Director, OC Planning or his/her designee that the design for the specified portions of Cow Camp Road includes the following features to facilitate wildlife movement: (see Items 122-124 below)	Director, OC Planning	Approval of a Street Improvement Plan demonstrating the design for Cow Camp Road includes features to facilitate wildlife movement	121.2 has been added to differentiate compliance between F Street (previously Cristianitos Road) and Cow Camp Road	
124.1	121-123 (MM 4.9-22)	EIR 589	MM 4.9-22 (cont.)	Prior to <del>issuance of a Grading Permit for construction of Cristianitos Road and</del> completion of the Project Report for F Street	Biological Resources	F Street, Cristianitos Road, Wildlife Movement	Lighting on F Street Bridge (Wildlife Movement)	• All lighting on the bridge, if required for public health and safety, shall be shielded to prevent spill-over effects.	<del>Director, PDS</del> Director, OC Planning	Project Report for F Street	Project Report for F Street shall include sufficient detail to demonstrate that lighting of bridge(s) will prevent spill-over effect, thereby facilitating wildlife movement	PA-2-8 and 10
124.2	121-123 (MM 4.9-22)	EIR 589	MM 4.9-22 (cont.)	Prior to completion of a Project Report for Cow Camp Road	Biological Resources	Cow Camp Road, Wildlife Movement	Lighting on Cow Camp Road Bridge (Wildlife Movement)	• All lighting on the bridge, if required for public health and safety, shall be shielded to prevent spill-over effects.	Director, OC Planning	Project Report for Cow Camp Road	Project Report for Cow Camp Road shall include sufficient detail to demonstrate that lighting of bridge(s) will prevent spill-over effect, thereby facilitating wildlife movement	PA-2-8 and 10



Item No.	Cross Reference Column	Source	Condition, Mitigation, Public Benefit or Entitlement Provision	Timing	Subject	Keywords	Title	Requirements or Entitlement Provisions	Reviewing / Approving Authority (Advisory Agency in Parentheses)	Form of Compliance	Guidance for Compliance	Area Application
140	141 (MM 4.9-28) 515 (ROSA Exhibit G)	EIR 589	MM 4.9-28	Prior to the issuance of building permits <del>for tracts</del> on streets for tracts with public street lighting adjacent to RMV Open Space habitat areas	Biological Resources	Open Space habitat, light shields	Streetlight Shielding Adjacent to Open Space	Lighting shall be shielded or directed away from RMV Open Space habitat areas through the use of low-sodium or similar intensity lights, light shields, native shrubs, berms or other shielding methods.	<del>Director, PDS</del> <b>Director, OC Planning</b>	Preparation of a lighting plan	Preparation of street improvement plans for public streets that detail how street lighting is to be directed away from RMV Open Space areas	Each Applicable PA
141	140 (EIR 589, MM 4.9-28)	EIR 589	MM 4.9-28 (cont.)	See above	Biological Resources	Light shields, street improvement plans	Streetlight Shielding Verification	a. Prior to the issuance of building permits for a tract with public street lighting adjacent to RMV Open Space habitat areas, the County of Orange shall verify that measures to shield such lighting have been incorporated in the <a href="#">street improvement building plans</a> .	<del>Director, PDS</del> <b>Director, OC Planning</b>	Preparation of building plans in compliance with lighting measures		Each Applicable PA
515	140 (MM 4.9-28)	Resource Organizations Settlement Agreement	Exhibit G (cont.)	Prior to the issuance of building permits for tracts adjacent to PA-8 Open Space	Planning Area 8 Edge Requirements (cont.):		Planning Area 8 Edge Requirements (cont.):	<b>4. Lighting shall be shielded or directed away from Defined Open Space through the use of low-sodium or similar intensity lights, light shields, native shrubs, berms or other shielding methods (also see Program EIR 589, Mitigation Measure 4.9-28, Item 140)</b>		RMV: Develop and implement lighting plan	Preparation of street improvement plans for public streets that detail how street lighting is to be directed away from RMV Open Space areas	PA-8
545		EIR 589	SC 4.6-3	Prior to the recordation of a Subdivision Map	<a href="#">Private</a> Street Improvements:		<a href="#">Private</a> Street Improvements:	Prior to the recordation of a subdivision map, the subdivider shall place a note on the map, in a manner that meets the approval of the Manager, Subdivision and Grading Services, that states: "The private streets constructed within this map shall be owned, operated and maintained by the developer, successors or assigns. The County of Orange shall have no responsibility therefore unless pursuant to appropriate sections of the Streets and Highways Code of the State of California, the said private streets have been accepted into the County Road System by appropriate resolution of the Orange County Board of Supervisors. (County Standard Condition T02)	<del>County of Orange</del> <del>Director of Planning &amp; Development Services,</del> <b>Director, OC Planning</b>	Verification of a note on the Subdivision Map	Note shall make statement listed in quotations in condition.	Each PA

Item No.	Cross Reference Column	Source	Condition, Mitigation, Public Benefit or Entitlement Provision	Timing	Subject	Keywords	Title	Requirements or Entitlement Provisions	Reviewing / Approving Authority (Advisory Agency in Parentheses)	Form of Compliance	Guidance for Compliance	Area Application
546		EIR 589	SC 4.6-4	Prior to the recordation of a Subdivision Map	Street Improvements (cont.):		Street Improvements (cont.):	Prior to the recordation of a subdivision map, the subdivider shall design and construct (or provide evidence of financial security, such as bonding) the following improvements in accordance with plans and specifications meeting the approval of the Manager, Subdivision and Grading: (County Standard Condition T04)	<del>County of Orange</del> Director of Planning & Development Services, <b>Director, OC Planning</b>	Submittal of satisfactory improvements and utility plans with verification of subsequent construction/installation of improvements	If applicable, bonding may substitute for construction of each of the required improvements.	Each PA
546.1		EIR 589	SC 4.6-4 (cont.)	See above	Street Improvements (cont.):		Street Improvements (cont.):	A. Streets, bus stops, on-road bicycle trails, street names, signs, striping and stenciling. (County Standard Condition T04)	See above	See above	See above	Each PA
546.2		EIR 589	SC 4.6-4 (cont.)	See above	Street Improvements (cont.):		Street Improvements (cont.):	B. The water distribution system and appurtenances shall also conform to the applicable laws and adopted regulations enforced by the County Fire Chief. (County Standard Condition T04)	See above	See above	See above	Each PA
546.3		EIR 589	SC 4.6-4 (cont.)	See above	Street Improvements (cont.):		Street Improvements (cont.):	C. Underground utilities (including gas, cable, electrical and telephone), streetlights, and mailboxes. (County Standard Condition T04)	See above	See above	See above	Each PA
549		EIR 589	SC 4.6-7	Prior to the recordation of a Subdivision Map	Traffic Signal Conduit:		Traffic Signal Conduit:	Prior to the recordation of a subdivision map, the subdivider shall install (or provide evidence of financial security, such as bonding, that) all underground traffic signal conduits (e.g., signals, phones, power, loop detectors, etc.) and other appurtenances (e.g., pull boxes, etc.) needed for future traffic signal construction, and for future interconnection with adjacent intersections, all in accordance with plans and specifications meeting the approval of the Manager, Subdivision and Grading. (County Standard Condition T08)	<del>County of Orange</del> Director of Planning & Development Services, <b>Director, OC Planning</b>	Approved traffic signal plans with verification of subsequent installation	If applicable, bonding may substitute for construction of each of the required improvements.	Each PA
550		EIR 589	SC 4.6-8	Prior to the recordation of a Subdivision Map or prior to the issuance of Building Permits, whichever occurs first	Internal Circulation:		Internal Circulation:	A. Prior to the recordation of a subdivision map or the issuance of any building permits, whichever occurs first, the subdivider shall provide plans and specifications meeting the approval of the Manager, Subdivision and Grading, for the design of the following improvements: (County Standard Condition T12)	<del>County of Orange</del> Director of Planning & Development Services, <b>Director, OC Planning</b>	Submittal of satisfactory street improvement plans		Each PA

Item No.	Cross Reference Column	Source	Condition, Mitigation, Public Benefit or Entitlement Provision	Timing	Subject	Keywords	Title	Requirements or Entitlement Provisions	Reviewing / Approving Authority (Advisory Agency in Parentheses)	Form of Compliance	Guidance for Compliance	Area Application
550.1		EIR 589	SC 4.6-8 (cont.)	See above	Internal Circulation (cont.):		Internal Circulation (cont.):	1) Internal street common private drive system. (County Standard Condition T12)	See above	See above		Each PA
550.2		EIR 589	SC 4.6-8 (cont.)	See above	Internal Circulation (cont.):		Internal Circulation (cont.):	2) Entrance to the site to emphasize that the development is private by use of signs and other features. (Standard Condition of Approval T12)	See above	See above		Each PA
550.3		EIR 589	SC 4.6-8 (cont.)	Prior to the recordation of Subdivision Map.	Internal Circulation (cont.):		Internal Circulation (cont.):	B. Prior to the recordation of a subdivision map, the applicant shall construct (or provide evidence of financial security, such as bonding) the above improvements in a manner meeting the approval of the Manager, Construction. (County Standard Condition T12)	<del>County of Orange Manager of Inspection,</del> <b>Manager, OC Inspection Division</b>	Verification of improvements' construction in SC 4.6-8A	If applicable, bonding may substitute for construction of each of the required improvements.	Each PA
550.4		EIR 589	SC 4.6-8 (cont.)	Prior to the issuance of Building Permits	Internal Circulation (cont.):		Internal Circulation (cont.):	C. Prior to the issuance of any building permits, the subdivider shall provide plans meeting the approval of the Manager, Subdivision & Grading, for the design of the internal pedestrian circulation system within the development. (County Standard Condition T12)	<del>County of Orange Director of Planning &amp; Development Services,</del> <b>Director, OC Planning</b>	Submittal of satisfactory internal pedestrians circulation plans		Each PA
551		EIR 589	SC 4.6-9	Prior to the recordation of a Subdivision Map	Traffic Signal Maintenance Easement:		Traffic Signal Maintenance Easement:	Prior to the recordation of a subdivision map, the subdivider shall dedicate a signal maintenance easement to the County of Orange at the project site access, in a manner meeting the approval of the Manager, Subdivision and Grading. (County Standard Condition T13b)	<del>County of Orange Director of Planning &amp; Development Services,</del> <b>Director, OC Planning</b>	Submittal of offer(s) of dedication for signal maintenance easement(s)		Each PA
552		EIR 589	SC 4.6-10	Prior to the recordation of a Subdivision Map	Traffic Signal Installation:		Traffic Signal Installation:	Prior to the recordation of a subdivision map, the subdivider shall design and construct/provide a cash deposit of __ % of the cost of / /enter into an agreement with the County of Orange, accompanied by financial security, for the cost of __ % of) a traffic signal at the intersection of ___ and ___, in a manner meeting the approval of the Manager, Subdivision and Grading. (County Standard Condition T14b)	<del>County of Orange Director of Planning &amp; Development Services,</del> <b>Director, OC Planning</b>	Verification of approved street improvement plans with subsequent installation of improvements or enter into agreement with County for construction (with appropriate financial security)	If applicable, bonding may substitute for construction of each of the required improvements.	Each PA