**City of Tracy**
333 Civic Center Plaza
Tracy, CA 95376

**DEVELOPMENT SERVICES**
**ENGINEERING DIVISION**

MAIN 209.831.6400
FAX 209.831.6439
www.cityoftracy.org

# ENGINEERING DIVISION - PLAN REVIEW CHECK LIST

Welcome to the City of Tracy. Only projects with an approved Development Review Permit, and/or subdivision will be accepted for plan review. Please submit the **On-site Grading/Drainage Plans, Off-site Improvements Plans, Off-site Landscape Plans, Joint Trench,** and/or **Final Map** along with the plan-check fee for the project's first plan review. The required plan-review fee is typically 5.78% of the Engineer's Cost Estimate for right-of-way improvements.* **On-site improvements must be separated from Off-site improvements**. Mail or drop-off the initial first submittal to the following:

| 1st Submittal | Subsequent Submittals |
|---|---|
| Attn: Cris Mina<br>City of Tracy – Development Services Dept.<br>333 Civic Center Plaza<br>Tracy, CA 95376 | Attn: Engineering Technician<br>City of Tracy – Development Services Dept.<br>333 Civic Center Plaza<br>Tracy, CA 95376 |

On pages 2 to 4 of this letter are the Submittal Check Lists that outlines the required submittal items for each department/division. Submittal Check List # 1 is for projects not involving a building. Submittal Check List # 2 is for projects with building construction. **Please separate the submittal among the different departments/divisions**. The plans must also conform to the attached design guidelines from the 2008 Design Standards. Review the project conditions for specific design parameters. Any missing item or missed condition may deem the submittal as incomplete and plan-check may be delayed. Per 12.36.060 of the Tracy Municipal Code and Section 66456.2 of the Government Code, the 60 working day review will not commence until the submittal is deemed complete and fees are paid.

On page 5 of this letter is a Plan Review Application. Please complete the application and include it with the submittal.

Please be aware that during the course of plan review, additional items beyond the Submittal Check List may be necessary to complete the review and additional comments may be generated based upon the responsible engineer's response.

Lastly, review comments can either be picked up at City Hall or mailed. For faster mail service, please provide a Federal Express number for overnight shipments.

Do not hesitate to contact the City at (209) 831-6436, or by email at al.gali@cityoftracy.org should you have any questions.

*See Resolution 2014-141 and 2017-098 for details.
Rev. 7-25-2017

**Submittal Check List # 1**

| **Grading/Drainage Modification<br>No Building Construction** | **Land Development** | **Traffic Engineering** | **B+S / Fire Prevention** | **Landscape** | **Public Works** | **Utilities** | **Construction** |
|---|---|---|---|---|---|---|---|
| **Off-site Improvement Plans**, Utilities, Traffic Signal, Erosion Control Plan: Include all existing connecting streets for 300-ft either direction; cross sections every 50-ft station (if widening existing street); Traffic Signal Plans provide nearby driveways and intersections; See attached 2008 Design Standards | **3X** | **X** | | | **X** | **X** | **X** |
| Plan review fee per City Council Resolution 2014-141<br>- 5.78% of Engineer's Cost Estimate of right-of-way improvements up to $1,000,000.<br>- $57,800 + 3.6% over $1,000,000 of Engineer's Cost of right-of-way improvements Estimate up to $5,000,000.<br>- Actual Costs for right-of-way improvements over $5,000,000; min deposit $100,000 | **2X** | | | | | | |
| Engineer's Cost Estimate | **2X** | | | | | | |
| Project Contacts | **2X** | | | | | | |
| **Off-site Landscape Plans** | | | | **X** | **X** | | **X** |
| Agricultural Soils Report | | | | **X** | **X** | | **X** |
| MAWA Calculations | | | | **X** | **X** | | **X** |
| Water Budget | | | | **X** | **X** | | **X** |
| **On-site Grading/Drainage**, Utilities, Erosion Control Plan with grading quantity in CY. See attached 2008 Design Standards | **2X** | | | | | **P** | **X** |
| Civil Soils Report | **2X** | | **X** | | | | **X** |
| Hydraulic Calculations | **2X** | | | | | **P** | |
| Storm Water Treatment Compliance | | | | | | **P** | |
| SWPPP, WDID# | **X** | | | | | **P** | **X** |
| Retaining Wall/Soundwall Calculations | | | **X** | | | | |
| Copy of Final Map for the parcel for easement review | **2X** | | | | | | **X** |
| **Joint Trench Plans including street light photometric** | **2X** | | | | | | **X** |
| Construction Phasing Plan | **2X** | **X** | | | | | **X** |
| PDFs and TIFFs (via CD, USB drive, email, FTP) of each of the above item at each submittal. At plan-review approval include, GIS-shapefile, and Autocad (format 2010 or earlier) | **2X** | | | | | | |

**X** indicates 1 (one) required copy; **P** = PDF

Submittal Check List # 1
(Continued)

| Final Map Review | Project File | Land Development | Construction | Planning | Surveyor | Landscape | Public Works |
|---|---|---|---|---|---|---|---|
| **Tentative Map** | X | X | | X | X | | |
| **Final Map/Parcel Map/Lot Line Adjustment** | X | X | X | X | X | X | X |
| **Legal Descriptions** | X | X | | | X | | |
| **Closure Calculations** | X | X | | | X | | |
| **Preliminary Title Report less than 90 days old.** | X | X | | X | X | | |
| **Estimated excavation/grading quantities** | X | X | | | X | | |
| **Previously recorded maps** | X | X | | X | X | | |
| **PDFs and TIFFs (via CD, USB drive, email, FTP) of each of the above item at each submittal. At plan-review approval include, GIS-shapefile, and Autocad (format 2010 or earlier)** | X | | | | | | |

**X** indicates 1 (one) required copy; **P** = PDF

**Submittal Check List # 2**

| Grading/Drainage Modification and Building Construction | Project File | Land Development | Traffic Engineering | Construction |
|---|---|---|---|---|
| **Off-site Improvement Plans**, Utilities, Traffic Signal, Erosion Control Plan: Include all existing connecting streets for 300-ft either direction; cross sections every 50-ft station (if widening existing street); Traffic Signal Plans provide nearby driveways and intersections; See attached 2008 Design Standards | X | 2X | X | X |
| Plan review fee per City Council Resolution 2014-141<br>- 5.78% of Engineer's Cost Estimate of right-of-way improvements up to $1,000,000.<br>- $57,800 + 3.6% over $1,000,000 of Engineer's Cost of right-of-way improvements Estimate up to $5,000,000.<br>- Actual Costs for right-of-way improvements over $5,000,000; min deposit $100,000 | X | X | | |
| Engineer's Cost Estimate of right-of-way improvements | X | X | | |
| Project Contacts | X | X | | X |
| **On-site Grading/Drainage and Erosion Control Plan** | X | 2X | | X |
| Estimated excavation/grading quantities in CY | X | X | | |
| Geotech Soils Report | X | X | | X |
| Hydraulic Calculations | X | X | | |
| Joint Trench Plans including street light photometric | X | X | X | X |
| Copy of Recorded Map for the parcel for easement review | X | X | X | |
| Construction Phasing Plan | X | X | X | X |
| PDFs and TIFFs (via CD, USB drive, email, FTP) of each of the above item at each submittal. At plan-review approval include, GIS-shapefile, and Autocad (format 2010 or earlier) | X | X | | |
| **Final Map/Parcel Map/Lot Line Adjustment** | X | 2X | | |
| Tentative Map, if applicable | X | X | | |
| Legal Descriptions | X | X | | |
| Closure Calculations | X | X | | |
| Preliminary Title Report less than 90 days old. | X | X | | |
| Previously recorded maps | X | X | | |
| PDFs and TIFFs (via CD, USB drive, email, FTP) of each of the above item at each submittal. At plan-review approval include, GIS-shapefile, and Autocad (format 2010 or earlier) | X | X | | |

**X** indicates 1 (one) required copy

## PLAN REVIEW APPLICATION

| | | | |
|---|---|---|---|
| Name of Development: | | | |
| Address/Location: | | | |
| Type of Development: | | | |
| Square Footage of Building: | | Acreage of Land: | |
| Point of Contact for All Correspondence: | | | |
| Name | Phone | Email | Address |
| Owner/Developer: | | | |
| Name | Phone | Email | Address |
| Architect: | | | |
| Name | Phone | Email | Address |
| Civil Engineer: | | | |
| Name | Phone | Email | Address |
| Soils Engineer: | | | |
| Name | Phone | Email | Address |
| Landscape Architect: | | | |
| Name | Phone | Email | Address |
| Additional Contact: | | | |
| Name | Phone | Email | Address |
| Provide Additional Contacts If Necessary | | | |
| Federal Express ID for overnight service: | | | |

| City Staff Use Only | | |
|---|---|---|
| Assigned Planner | Planning Area/Specific Plan | Assigned Tracking Numbers |
| | | |

# GRADING PLAN CHECK LIST FOR GRADING PERMIT RELEASE

## BASED ON 2008 TRACY DESIGN STANDARDS

I. General

1. Plans on 24" x 36" City Title Block.
2. North arrow and scale on each sheet. North up and/or left.
3. Titles and numbers on all sheets and match index.
4. Conformance to Tentative Map and Conditions of Approval, especially dimensions of lots, and the number of lots.

II. Title Sheet

1. City of Tracy Title Block
2. Name of Subdivision Tract.
3. Tract Number, Assessor's Parcel Number (APN), and City of Tracy Development Project Number.
4. Vicinity Map with north arrow (north up and/ or left).
5. Sheet Index.
6. Design Engineer and Geotechnical Engineer's Signature Block.
7. General Notes per Appendix B of the Design Standard (may be on sheet 2).
8. List of Abbreviations.
9. Temporary and permanent bench marks and descriptions.
10. Datum

lII. Demolition and Abandonment Plan (If Required).

1. Show existing buildings and structures.
2. Existing septic tanks and leach fields shown.
3. Existing wells shown.
4. Shown existing trees and trees to be removed.

IV. Earth Moving Plans (Grading)

1. Existing topography with spot elevations with contours and extended 50' beyond boundary.
2. Proposed pad grades and correct relationship to T/C grades.
3. T/C elevations at property line extensions.
4. T/C at grade breaks and curb returns shown.
5. T/C at storm drains inlets shown.
6. Storm drain lines and structures shown, including cleanouts or junction boxes at bends.
7. Street slopes at centerlines shown (0.4% minimum).
8. Lot Number, property and boundary lines shown.
9. Show retaining wall and sound wall location and height.
10. Plan view of typical lot drainage. Minimum slope of lot 1%.
11. Selection of Typical lot to show property line /slope relations.
12. Show grading requiring for off-site drainage.
13. Grading shown between back-of-curb or sidewalk and original ground at right-of-way.
14. Grading conforms to adjacent properties shown correctly and no adverse effect on future development.
15. Check no drainage across lot lines and lots to drain to streets.
16. Maximum slopes 3:1 or per Soils Report.
17. All pads above high water when storm drains plug (subsurface glows).
18. Elevations at rear of lots shown.
19. Temporary erosion control and/or slope protection devices.
20. Right-of-Way/Property Lines

# OFF-SITE IMPROVEMENT PLAN CHECK LIST
# FOR OIA, SIA OR ENCROACHMENT PERMIT RELEASE
# EXCERPT FROM 2008 TRACY DESIGN STANDARDS

## I. General

____1. Plans on 24" x 36" standard City plan sheets.
____2. North arrow and scale on each sheet. North up and/or left.
____3. Titles and numbers on all sheets and match index.
____4. Conformance to Tentative Map and Conditions of Approval, especially street and R/W widths, grading, drainage, sewerage, water lines, number and size of lots etc.

## II. Title Sheet

____1. Name of Subdivision Tract or development project.
____2. Tract Number and Assessor's Parcel Number (APN).
____3. Vicinity Map with north arrow (north up and/or left).
____4. Sheet Index.
____5. City Engineer's Signature Block.
____6. Design Engineer Signature Block, Geotechnical Engineer's signature block on Grading Plan.
____7. General Notes per Appendix B of the Design Standards (may be on sheet 2).

## III. Sheet Two (And Three If Required)

____1. Plan view showing all streets, utilities, structures, etc. and show improvement plan sheet layout. (1"= 100' scale).
____2. Drafting symbol legend per Appendix A.
____3. Street sections shown with street name, TI, R-value, AC, AB, and ASB thickness.
____4. Structural sections shown and agree with City Standards.
____5. Curb shown.
____6. Right-of-way and street widths shown.
____7. Cross-slope shown-note relative difference of and T/C.
____8. Sidewalk shown.
____9. Pedestrian paths shown.
____10. Drainage ways shown.
____11. Temporary and permanent bench marks and descriptions.
____12. List of Abbreviations.

## IV. Demolition and Abandonment Plan (If Required)

____1. Show existing buildings and structures.
____2. Existing septic tanks and leach fields shown.
____3. Existing wells shown.
____4. Show existing trees and trees to be removed.

## V. Grading Plans

SEE SEPARATE GRADING PLAN CHECK LIST

### A. Plan Views

____1. Wheelchair ramps shown per Standard Plans.
____2. Radius of curvature, central angle, and length shown on all street curves.
____3. Curb curve data given - central angle, length, and radius (30′ on residential streets and 55′ on industrial streets).
____4. Scale 1″ = 40′.
____5. Cul-de-sac radius (40′ - residential or 50′ - industrial).
____6. Property corner cutoffs used when wheelchair ramps installed, otherwise concentric with curb.
____7. R/W and street width dimensions shown.
____8. Centerline stationing at 100′ and at BC and EC of curves.
____9. Lot/parcel lines and numbers/letters shown.
____10. Cul-de-sac cross slopes from high point to gutter lip minimum 2% and Maximum 5%.
____11. Valley gutters - show flow lines at center of street.

____12. Stationing on all drainage structures shown.
____13. T/C elevation shown at all drain structures.
____14. Drainage easements shown and dimensioned.
____15. Location of existing and proposed underground pipes and utilities shown.
____16. Location of fire hydrants per Tentative Map.
____17. Street monuments and benchmarks shown.
____18. Pedestrian Paths shown. Basic grades shown.
____19. Street names shown.
____20. Stations and elevations street intersections shown.
____21. All notes and symbols standard and conforming to legend.
____22. All existing utility poles, manholes, valves, signs, mail, boxes, trees, etc. shown. Indicate those to be removed, relocated or adjusted to grade.
____23. Continuations and cross streets properly referenced (For example: Match Line See sheet # ____).
____24. Project limits and City limits shown.
____25. Standard knuckle used.
____26. Street signs, traffic signs and barricades shown in proper locations.
____27. Driveway locations and widths shown. 3' vertical curb between driveways and 1.5' to property lines.
____28. Field inspection should identify any damaged existing sidewalk, curb and gutter in need of replacement.

B. Profiles

____1. Vertical curves designed for proper speeds per Highway Design Manual.
____2. Minimum vertical curve lengths observed (50').
____3. Vertical scale 1" = 2".
____4. Vertical curve used for grade breaks greater than 2%.
____5. In cul-de-sacs, show profiles at centerline from end on T/C profile through the radius point to top of curb at end of cul-de-sac (dashed line).
____6. 2% maximum grade observed across intersections.
____7. 0.4% minimum grade observed on all streets at curb.
____8. All existing and proposed underground pipes and utilities shown; storm drain, water and sewers.
____9. Existing ground on centerline shown.
____10. Finished grade profile for top of curb shown.
____11. Centerline profiles and slopes of intersecting streets shown on to their point of intersection.
____12. Off-site profile to catch point shown where road is constructed beyond subdivision boundary (minimum 50-foot beyond project limits).
____13. Centerline stations and elevations shown at all BVC, EVC, PIVC, grade breaks, low points and high points, and TC or rim elevation at all drainage structures.
____14. All slopes in profile shown.

____15. Show all utility crossings with clearances indicated.
____16. Manhole and drop inlet invert and flowline elevations shown.
____17. Elevation at high and low points of water mains shown.

VII Sanitary Sewers

____1. System in agreement with Tentative map and Master plan.
____2. Design conforms to City Standards.
____3. Size of line shown (8" min. main, 4" min. lateral).
____4. Adequate cover (3' min to finished grade - 2' min. to sub-grade). Ductile pipe or engineered alternatives if shallower.
____5. Clearance with water main (1' vertical, 10' horizontal O.D.).
____6. Size, slope, length between structures, and type of pipe.
____7. Connection to existing facilities possible. Manhole installed when tying to existing lines.
____8. Extension possible. Lines to subdivision boundary.
____9. Sewer line to be located per Standard Plan 563.
____10. Curves allowed within 80% of recommendations of pipe manufacturer. Show curve data or offsets if concentric with centerline.
____11. On all curves where short pipe lengths are used, indicate clearly on plans.
____12. Top of manhole elevations shown.
____13. Stations given for manholes.
____14. Sizes of existing lines shown.
____15. Pipe types allowed - VCP only (D.I. if cover requires it).
____16. 600' maximum distance manhole to manhole and for pipe 15" and over, 400' maximum spacing for pipe 12" and under.
____17. Minimum 2 fps velocity.
____18. 0.2' drop around corner through manhole.
____19. Bolted manhole covers for any off street manholes.
____20. In unimproved areas, manholes extended 1' above ground.
____21. Check sanitary calculations.
____22. Laterals shown in plan and 11' center to center separation from water services and 3' below water if crossing (follow health department's diagram).
____23. Special approval areas shall be noted in profile (less than minimum cover and clearances).

VIII. Drainage

A. Hydrology - Hydraulics

____1. Calculations per City Design Standards and based on 10-year storm with minimum velocity of 2 fps.

____2. Calculations shall include: HGL, FL, EL, Q, A, S, V, freeboard at structures, structure losses, and tailwater assumptions.
____3. Adequacy of on-site and off-site drainage system verified.
____4. All starting water surface and tributary area calculations adequately verified.
____5. Drainage plan showing street systems, existing and proposed drainage system, slope arrows, tributary sub-areas in acres, peak flow in all pipes (1" = 100' preferred).
____6. All pipe and structures in tributary areas labeled to correspond with calculations.

B. Easements

____1. Off-site drainage improvements (plan and profile) and accompanying easements shown. Off-site offers of dedication (plat map and legal description) for drainage easement submitted for review.
____2. Off-site work to be done but no easement required (right-of-entry submitted for review).
____3. Easement widths indicated.
____4. Easements across lots not permitted.

C. Structures

_____ 1. Max. diameter pipes through drainage structures observed.
Standard D.I. - 24"
Manhole Base - > 24"
_____ 2. 1.00' minimum HGL to TC.
_____ 3. Special structure calculation provided.

D. Pipe

____1. Minimum pipe slope of 0.5% observed for pipes 33" and larger.
____2. Size, slope, length between structures, type and class or thickness of pipe shown in profiles (12" minimum).
____3. RCP, CIPP and double-dipped bituminous spiral ribbed pipe only.
____4. Trunk lines 1.25' behind face of curb.
____5. On all curves where non-standard pipes are to be used, indicate clearly on the plans.
____6. Outlet protection provided.
____7. 3' minimum cover over pipe to finished grade observed (provided manufacturer specs do not require more) unless special design and calcs submitted.
____8. Curve radii allowed to within 80% of pipe manufacturer's recommendations.

____9. All curve data at centerline of pipe shown unless concentric with street then offsets allowed.
____10. Elevations, slopes and distances all mathematically correct.
____11. Match hydraulic/hydrology calculations.
____12. 600′ maximum distance manhole to manhole for pipe 30″ and greater, 400′ maximum spacing for pipe 12″ to 30″.

E. Channels

____1. Maximum velocity in earth channel verified by soils report.
____2. Channel side slopes as specified by soils report.
____3. Channel design per Drainage Master Plan.

F. Temporary Storm Drain Retention Basins

____1. Runoff volume calculations per City Design Standards.
____2. Groundwater level shown on basin section.
____3. Basin bottom 5′ above water table unless statement from soils engineer indicates range of depths then 2′ allowed.
____4. Outfall protection using riprap required.
____5. Chain link fence with slats around basin required.
____6. Ramp at 10% maximum required.
____7. Off-tract basins require an access road around the basin.
____8. Easements are required.

IX. Water Lines

____1. System in agreement with Tentative Map.
____2. Design conforms to City Design Standards.
____3. Size - 8″ min. except cul-de-sacs without hydrants where 6″ is allowed.
____4. Valves (minimum 3 at a cross, 2 at a tee; every 1000′ max.).
____5. Hydrants - locations as shown on approved Tentative Map.
____6. Cover - 3′ min. to finished grade.
____7. Proper separation from sewer lines (1′ vertical, 10′ horizontal O.D.).
____8. Location - per City Standard Plan 563.
____9. Lines kept in streets.
____10. Crossings with sewer mains or laterals meet health standards.
____11. Length, size and class of pipe shown in profile.
____12. Length shown as distance between crosses or tees.
____13. Invert elevations shown at grade breaks, high points, and low points.
____14. Sizes of all existing lines shown.
____15. Top of curb at hydrant locations shown.

____16. Curves allowed to within 80% of pipe manufacturers recommendations. Curve data shown unless concentric with street improvements where slowing offsets are acceptable.
____17. Combination Air Valves and Blow-offs behind walks.
____18. Air and vacuum valves at high points and elevated cul-de-sacs if difference in elevation greater that ½ pipe diameter.
____19. Connection to existing facilities.
____20. At points of future expansion install temporary blowoff with valve.
____21. Lines extended to tract boundaries and along frontage.
____22. House services shown in plan (11′ center to center separation from sewer lateral).
____23. Fire hydrants maximum spacing - 500′ residential and 300′ other. Hose lay lengths 250′ residential and 150′ other. Cul-de-sacs within 200′ of radius point.

X. Street Lighting

____1. Shown on 1″ = 100′ scale plan.
____2. Cul-de-sacs - street light required if longer than 100′. Mid point light required if longer than 300 ′.
____3. Residential streets - evenly spaced at 250 feet maximum. 100 watt on 28′ - 6″ poles with 12′ arms.
____4. Collector and Industrial Streets - evenly spaced at 250 feet maximum. 150 watt on 28′ - 6″ poles with 12-foot arms.
____5. Arterial Streets - evenly spaced at 170 feet maximum. 200 watt on 30′ - 0″ poles with 15 foot arms.
____6. Wattage and pole heights indicated on plans.

XI. Engineer's Cost Estimate

____1. Verify that unit costs agree with City Standard Costs. Check that costs are current version.
____2. Verify quantities of all items.
____3. Review with plans to determine if there are missing items.
____4. 10% contingency required.
____5. Grading quantities shown - lump sum not acceptable.
____6. Driveways included as separate item.
____7. Sidewalk on lineal foot and not included in curb and gutter item.
____8. Increase costs of facilities installed in existing streets by 50%.
____9. Check groundwater depth. If pipes installed below water table increase costs by $10 per lineal foot.
____10. For each 20 electroliers, 1 extra is required.
____11. When resubmitted verify that all changes in plans are reflected in the estimate.

XII. Landscape

A. Landscape Improvement Plans

____1. Three prints of plans on 24" x 36" with 1" margin on City's title block, scale 1:20 or 1:10 (when public right-of-way or landscape maintenance district is involved).
____2. Three prints each of Title Sheet and Map.
____3. Three Grading and Drainage Plans.
____4. Two copies of quantity and cost estimate for public improvements.
____5. Two non-interference letters from public utility companies with any existing easements or facilities.
____6. Two copies of the preliminary soils report from Soils Lab.
____7. Two copies of calculations for shade structures.
____8. Two copies of water conservation concept statements.
____9. Two copies of calculations of the maximum applied water allowance.
____10. Two copies of calculations of the estimated applied water use.
____11. Two copies of calculations of the estimated total water use.
____12. Two copies of irrigation controller schedules (establishment & long term).
____13. Two copies of certificates of substantial completion (to be submitted after installation of landscaping).

B. Site Improvement Plans/Grading Plans

____1. Three prints of plans on 24" x 36" with 1" margin on City's standard title block showing existing and new public sewerlines.
____2. Copy of the preliminary soils report.
____3. Two copies of the on-site and off-site drainage study.
____4. Two copies of any other calculations.
____5. Print of boundary survey or map of property, or an acceptable legal description if a map is not available.
____6. Non-interference letter from public utility companies, with any existing facilities/easements.

Note: All landscape design and details must conform with City of Tracy's Parks and Streetscapes Standard Plans, current edition. Final submittal must be made on mylar sheets with licensed California Landscape Architect and original signature on wet stamp for each sheet.