



PLAN CHECK POLICY

Public Works Department

Three plan checks are expected to complete the review process and the Public Works Department is committed to providing all available assistance to achieve that goal. To ensure successful implementation of the service, the City recommends that the Developer and Design Engineer meet early in the process with the Plan Check Engineer to identify goals and construction scheduling so the City is better able and prepared to accommodate the proposed schedule. This partnering approach will help ensure that important milestones, issues or logistical concerns are identified early on; prior to processing the project. Ultimately, the Developer and Design Engineer must enter into this partnering approach with the City if a three-plan check approval is to be successful.

The Land Development Division is headed by a Principal Engineer who is responsible for guiding all staff members and overseeing all aspects of the process. The Plan Check Engineers are the Project Managers who are in charge of coordinating the entire process, intra- and inter-departmentally, in an effort to provide continuity of service. The Plan Check Engineer is the identifiable contact for Developers, Engineers, other City department staff, as well as outside agencies and municipalities. The Plan Check Engineer will be designated either in advance, during pre-development meetings, or at the time of the development plan check process.

Additionally, upon completion of the first plan check review, it is highly recommended that the Design Engineer review all the comments made by the Plan Check Engineer and, subsequently, arrange to meet with both the Developer and the Plan Check Engineer to discuss issues which have the potential to result in delays for either the Developer or the City.

1. Design Engineer submits plans for checking with all applicable reference materials and fees as requested in the Public Works Department Plan Checking Submittal Requirements. The plan checking submittal requirements are included in this package. ***Please note that incomplete Submittals will not be accepted.***
2. For estimation of the fees due for plan check see the approved fee schedule (PWLD-014) available at the front counter.

Should you have any questions on the fee schedule or on computation of the fees, please contact the Plan Check Engineer for assistance.

3. A Preliminary Bond and Fee Letter shall be issued during the entitlement phase of a project if applicable; and a Final Bond and Fee Letter shall be issued at the time of the plan check submittal. The Bond and Fee Letter shall be based on the completed cost estimate and bond estimate form (signed & stamped by the civil engineer) and the property owner's vesting information (title report). Incomplete submittals will delay the issuance of the Bond and Fee Letter which may result in delays to the project.

Agreements will be sent out with the letter and shall be completed by the Developer and returned to the City for processing along with the required security. Security for agreements may be in the form of bonds, irrevocable letters of credit or cash deposits. The agreements and security, once received, will be scheduled for the next available City Council meeting. The City must be in receipt of all the agreements, security and required council exhibits a minimum of three weeks prior to the desired council meeting date. No permits may be issued nor maps recorded until the associated agreements have been approved by City Council.

4. Accelerated plan check processing will be accommodated as work loads permit. However, deposits to compensate the City for overtime or use of outside consultants may be required to fast track projects through the system.
5. A project review checklist will be sent to the Developer and Design Engineer after the initial submittal identifying any missing project submittal data not received and required for submittal.
6. At the completion of the first plan check, the Plan Check Engineer will call the Design Engineer to pick up the check prints and other materials, such as bond calculation forms, as appropriate (or will arrange a meeting, if necessary).
7. Reviews required by other agencies/utilities may have a different plan check turn around time than the City. Plan check may have to proceed without input from those agencies; however, prior to the final approval, all input must be reviewed and all appropriate comments and plan modifications of the other agencies/departments must be incorporated into the final design.

The Design Engineer is responsible to coordinate with other agencies, as necessary, which may be affected by the project. Below is a partial list of other agencies that should be considered for project coordination:

A.T. & T.	City of Norco
Verizon	City of Riverside
Charter Communications	County of Riverside
Southern California Edison Company	Metropolitan Water District
Southern California Gas Company	Riverside County Flood Control
Four Corners Pipeline	U.S. Army Corps of Engineers
SBC	Cal Trans
Santa Fe Railroad	Other agencies

8. The second plan check submittal should again be coordinated with the Plan Check Engineer. The number of revised plans included in the submitted package should be equal to the number of redlined plans received at first check; plus one additional copy for file purposes. Should you have any questions on preparing the package, please contact the Plan Check Engineer.
9. The Senior Engineer will check compliance with turn around goals weekly to ensure responsive plan check processing.

The plan check turn around time has goals of:

- a. Initial plan check.....4 weeks maximum
 - b. Second plan check..... 3 weeks maximum
 - c. Third plan check / Final approval and signature of mylars ... 2 weeks maximum
10. If the plans go beyond third plan check due to non-compliance with standards and/or corrections requested an additional plan check fee will be charged based on the current fee schedule.
 11. After six months of inactivity on a plan check, it shall be considered void. Any plan check resubmitted after the six months of inactivity will be reviewed by staff on a case by case basis. The review shall determine whether the plan check is to be treated as a first plan check submittal and to determine if new plan check fees shall be applicable.

12. Upon completion of the plan checking process (including any other agencies' review as applicable), the project will be submitted to the City Engineer for approval. The Plan Check Engineer will notify the Design Engineer that the plans have been approved.
13. If major changes to the project scope occur during the plan check process and prior to the approval of the associated plans; the plans shall be considered void. A new plan check will begin at first check with resubmitted plans showing the new project layout. Major changes which would require a new first check are such things as the addition or removal of property from the project.

NOTE: Should you have any questions or comments on the three plan check approval expectation, please contact the Plan Check Engineer at your convenience.



UTILITY CONTACT NUMBERS

Public Works Department

ELECTRIC	SOUTHERN CALIFORNIA EDISON (909) 930-8591
PHONE	AT&T (866) 243-6122
GAS	SOUTHERN CALIFORNIA GAS COMPANY (909) 335-7733
CABLE	CHARTER COMMUNICATIONS (800) 238-2955
FIBER-OPTIC	CROWN CASTLE NG WEST (626) 320-0996
WATER & SEWER	CITY OF CORONA DEPARTMENT OF WATER AND POWER (951) 736-2321



SUBMITTAL REQUIREMENTS

FOR

SUBDIVISION MAPS

Public Works Department

1. Transmittal letter showing all documents, plans, and supporting items submitted.
2. Plan check fee based on current City fee schedule and deposit policies. **60% of the published fee shall be submitted with the first review.** Plans will not be processed without a fee deposit.
3. Submit a monumentation cost estimate letter on the engineer or surveyor's company letterhead.
4. Five (5) sets of title sheet and subdivision map.
5. Three copies of traverse calculations for the following:
 - a. Map border (blue border).
 - b. Centerline Closures.
 - c. Property Line Block Closure.
 - d. Non-Rectangular or irregular shaped lots.
 - e. All individual lettered lots.
6. Two (2) copies of current preliminary title report (less than 90 days old).
7. Two (2) copies of approved tentative map.
8. Two (2) copies of approved conditions of approval (including Community Development Staff Report).
9. One (1) copy of approved street name assignment letter.
10. One (1) copy of all reference material or existing plans used.
11. Non-interference letters.

NOTE: (1) *The grading and public improvement plans for the project should be submitted at the same time as the subdivision map.*
(2) *Incomplete submittals will not be accepted.*

OTHER DOCUMENTS WHEN APPLICABLE:

1. Two (2) copies of Homeowner's Association documents. Covenants, Conditions and Restrictions (CC&R's). **A CC&R deposit of \$6,000.00 is required along with the submittal of the CC&R package.**
2. Two (2) copies of final CUP conditions of approval.
3. Two (2) copies of Precise Plan conditions of approval.
4. One (1) copy of Corporate Resolution or record statement of partnership (if partnership is required to execute the map).
5. One (1) copy of approved EIR.

AFTER APPROVAL OF FINAL MYLARS/MAP RECORDATION:

1. Digital file of final map when approved by City Council.
2. Final recorded map duplicate mylars for City records.

NOTE: *Once the final map has been recorded, it may not be checked out for private use. Copies of the recorded map can be obtained from the Public Works front counter.*



SUBMITTAL REQUIREMENTS
FOR
PUBLIC IMPROVEMENT PLANS
Public Works Department

FIRST SUBMITTAL:

1. Transmittal letter showing all documents, plans, and supporting items submitted.
2. Two (2) copies of preliminary quantities and cost estimates, along with bond estimate form.
3. Two (2) copies of current preliminary tile report (less than 90 days old).
4. Plan check fee based on current City fee schedule and deposit policies. **60% of the published fee is due at the time of submittal.** Plans will not be processed without a fee deposit.
5. Five (5) sets of street improvement plans (24" x 36").
6. Five (5) sets of sewer and water plans if not included in street improvement plan set (24" x 36").
7. Two (2) copies of water and sewer studies.
8. Two (2) copies of traffic study when required (see Traffic Impact Study guidelines for further information).
9. Two (2) copies of the approved conditions of approval.
10. One (1) copy of all reference material or existing plans used.
11. Two (2) copies of traffic signing and striping plans (May be part of street improvement plan set, if so provide 1 additional copy of Street Plan).
12. Two (2) copies of traffic control plans (May be a part of street improvement plan set, if so provide 1 additional copy of Street Plan).
13. Street cross sections at 25 foot intervals (as part of the street improvement plan set).
14. Two (2) copies of drainage study including the following:
 - a. Hydrologic and hydraulic calculations for the 10 year and 100 year storms.
 - b. Written introduction.
 - c. Discussion and conclusion.
 - d. Executive summary.
 - e. Hydrology maps for existing and proposed conditions.

15. Two (2) sets of storm drain plans (if not part of the street improvement plan set).
16. Four (4) sets of Public Landscape Improvement Plans (LMD) if applicable.
17. One (1) copy non-interference letters.
18. All applicable easement and right-of-way dedications.

NOTE: *Incomplete submittals will not be accepted.*

SECOND OR THIRD SUBMITTAL:

1. Signed and notarized bond forms and agreements.
2. Council exhibits for bond forms and agreements (see sample online or at Public Works front counter).
3. Payment of plan check fee balance.

FINAL SUBMITTAL:

1. Mylars of approved plans.
2. Digital file of improvement plans (DXF/DWG format), unless scanning fee has been paid.

AFTER APPROVAL OF FINAL MYLARS:

NOTE: *Final approved mylars can be picked up from the Public Works front counter by the Engineer of Record or a Bonded Blueprint Company ONLY. Checkout time for approved mylars is one (1) week.*

1. Submit 5 bond copies of approved mylars at the time of construction permit issuance.
2. Engineering and Inspection deposit will be paid at the time of construction permit issuance (fee will be detailed in bond and fee letter issued to developer).



SUBMITTAL REQUIREMENTS
FOR
GRADING PLANS
(Rough and Precise Grading)
Public Works Department

FIRST SUBMITTAL:

1. Transmittal letter showing all documents, plans, and supporting items submitted.
2. Plan check fee based on current City fee schedule and deposit policies. **60% of the published fee is due at the time of submittal.** Plans will not be processed without a fee deposit.
3. Two (2) copies of current preliminary tile report (less than 90 days old).
4. Five (5) sets of rough or precise grading plans (24" x 36").
5. Two (2) copies of preliminary quantities and cost estimates, along with a bond estimate form.
6. Erosion control plan set (may be a part of grading plan set).
7. Two (2) copies of soils or geotechnical report (if over 12 months old, an update to the original report will be required).
8. Two (2) copies of drainage study including the following:
 - f. Hydrologic and hydraulic calculations for the 10 year and 100 year storms.
 - g. Written introduction.
 - h. Discussion and conclusion.
 - i. Executive summary.
 - j. Hydrology maps for existing and proposed conditions.
9. Two (2) copies of boundary survey, map or legal description of property.
10. Two (2) copies of WQMP when applicable.
11. Two (2) copies of the approved conditions of approval.
12. One (1) copy non-interference letters.

NOTE: *Incomplete submittals will not be accepted.*

OTHER DOCUMENTS WHEN APPLICABLE:

1. Conditions of Approval, including for CUP, Precise Plan, BZA Memorandum, etc.
2. Retaining wall plans (included in grading plan set).
3. Two (2) sets retaining wall calculations.
4. One (1) copy Phase I and Phase II environmental studies.
5. One (1) copy Scale Broom Weed letter.
6. One (1) copy Storm Water Pollution Prevention Plan (SWPPP).
7. Approved CLOMR.
8. Off-site permission to grade letters.

SECOND OR THIRD SUBMITTAL:

1. Signed and notarized bond forms and agreements.
2. Council exhibits for bond forms and agreements (see sample online or at Public Works front counter).
3. Payment of plan check fee balance.

FINAL SUBMITTAL:

1. Mylars of approved plans.
2. Digital file of improvement plans (DXF/DWG format), unless scanning fee has been paid.

AFTER APPROVAL OF FINAL MYLARS:

NOTE: *Final approved mylars can be picked up from the Public Works front counter by the Engineer of Record or a Bonded Blueprint Company ONLY. Checkout time for approved mylars is one (1) week.*

1. Submit 5 bond copies of approved mylars at the time of grading permit issuance.
2. Grading permit fee, erosion control cash deposit and WQMP inspection fee will be paid at the time of grading permit issuance (fee will be detailed in bond and fee letter issued to developer).



SUBMITTAL REQUIREMENTS
FOR
RIGHT OF WAY/EASEMENT DEDICATION
Public Works Department

1. Transmittal letter showing all documents, plans, and supporting items submitted.
2. Plan check fee based on current City fee schedule and deposit policies. **100% of the published fee shall be submitted with the first review.** Plans will not be processed without a fee deposit.
3. Three (3) sets
 - Legal description labeled as Exhibit “A” and plat labeled as Exhibit “B” on 8 ½” x 11” showing the property and dedicated portion thereof, wet signed and sealed by a licensed land surveyor or a Registered Civil Engineer.
4. Three copies of closure calculations
5. Two (2) copies of Title Report, showing the name(s) and vesting of the current owner(s), not more than 90 days old.
6. One (1) copy of all reference material or existing plans used. (schedule B documents)

AFTER APPROVAL OF EASEMENT LEGAL:

1. City prepares deed
2. Applicant has the owner sign, notarize and return the deed to the city for recordation.



SUBMITTAL REQUIREMENTS
FOR
VACATION OF
RIGHT-OF-WAY AND PUBLIC EASEMENT
Public Works Department

Review the attached policy prior to submitting the following items:

1. Letter requesting vacation from all abutting property owners.
2. Current title report from all abutting property owners.
3. Map showing area to be vacated (8-1/2" x 11", including vicinity map).
4. Legal description of area to be vacated.
5. Map clearly showing all lots within one block of vacation with owners' names.
6. List of names and addresses of all property owners within one block of vacation.
7. Vacated public right-of-way is to be physically closed within six months of adoption of Council Resolution of Vacation.*

The applicant shall submit:

- A. Statement of how the closure shall be secured (C of O, bond, deposit).
- B. Statement or plan showing what construction will be required to implement the closure.
8. Fee per current fee schedule (non-refundable).
9. Current County Filing Fee (Optional: Should be submitted if the issue may be challenged within a six month period).

* If the physical closure of the right-of-way is not completed within the time period, the vacation resolution will be null and invalid.

POLICY RELATING TO VACATION OF ALLEYS

Adopted by City Council
June 8, 1971
(Revised February 7, 1973)

In general, no alley in the City of Corona shall be considered for vacation by the City Council unless all of the following requirements are met:

1. Consent to such vacation shall have been given in writing by all abutting property owners.
2. No dead-end alley shall be created as a result of the vacation (i.e., if the E-W alley is already vacated, entire length of the N-S alley must be vacated).
3. Police and Fire Departments must have no objection to such vacation.
4. No protests on such vacation shall have been received.

In the resolution vacating an alley, ten (10) foot easements for each existing utility shall be reserved unless the requesting party makes arrangements satisfactory to the affected utility for the removal of such utility from the alley. The reserved easements shall specifically prohibit the construction of encroachments in the form of fences, structures, or otherwise, which will interfere with the purpose of the easements, its use and the maintenance and repair and enlargement of its use.

QUANTITY ESTIMATE FOR PUBLIC IMPROVEMENTS MARCH 2018

Project #: _____

Location: _____

<i>Item</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Quantity</i>	<i>Cost</i>
Removal				
AC Berm	LF	\$8.00	_____	\$
AC Pavement	SF	\$3.00	_____	\$
Curb Only	LF	\$10.00	_____	\$
Curb & Gutter	LF	\$16.00	_____	\$
D/W Approach	SF	\$13.00	_____	\$
Sidewalk	SF	\$8.00	_____	\$
W/C Ramp	SF	\$8.00	_____	\$
OTHER=	_____	_____	_____	\$
OTHER=	_____	_____	_____	\$
OTHER=	_____	_____	_____	\$
			SUBTOTAL	\$
Relocation				
Power/Telephone Pole	EA	\$5,000.00	_____	\$
Pull Boxes	EA	\$500.00	_____	\$
Street Light	EA	\$6,000.00	_____	\$
Street Sign	EA	\$400.00	_____	\$
OTHER=	_____	_____	_____	\$
OTHER=	_____	_____	_____	\$
			SUBTOTAL	\$
Asphalt				
AC Berm 6"	LF	\$35.00	_____	\$
AC Berm 8"	LF	\$38.00	_____	\$
AC Fogseal	SY	\$5.00	_____	\$
AC Overlay	SY	\$8.00	_____	\$
AC Pavement	SF		_____	\$
Asphalt (sf x depth x 0.075)	TON	\$190.00	_____	\$
Base (sf x depth / 27)	CY	\$110.00	_____	\$
Fogseal	SY	\$5.00	_____	\$
OTHER=	_____	_____	_____	\$
OTHER=	_____	_____	_____	\$
OTHER=	_____	_____	_____	\$
			SUBTOTAL	\$

Concrete

Alley Approach, 8" PCC	SF	\$28.00		\$
Curb Only 6"	LF	\$35.00		\$
Curb Only 8"	LF	\$39.00		\$
Curb & Gutter 6"	LF	\$42.00		\$
Curb & Gutter 8"	LF	\$44.00		\$
Cross Gutter & Spandrel	SF	\$29.00		\$
D/W Approach, Complete	EA	\$6,000.00		\$
D/W Approach, 6"	SF	\$28.00		\$
D/W Approach, 8"	SF	\$30.00		\$
Pavement, 6"	SF	\$13.00		\$
Pavement, 8"	SF	\$15.00		\$
Sidewalk, 4"	SF	\$13.00		\$
V-Gutter	SF	\$38.00		\$
W/C Ramp	EA	\$3,800.00		\$
W/C Ramp	SF	\$30.00		\$
OTHER=				\$
OTHER=				\$
OTHER=				\$
			SUBTOTAL	\$

Storm Drain

Box Culvert (Including Backfill)	CY	\$3,500.00		\$
Box Culvert (Unapp. Areas)	CY	\$2,500.00		\$
Catch Basin, W<8'	EA	\$7,000.00		\$
Catch Basin, W>8'	EA	\$10,500.00		\$
Channel, Reinf. Conc. Lined	SF	\$13.00		\$
Channel, Open Conc. <24"	LF	\$150.00		\$
Channel, Open Conc. 27"-36"	LF	\$250.00		\$
Channel, Open Conc. 42"-72"	LF	\$500.00		\$
Collar, 45"-60"	EA	\$1,300.00		\$
Collar, >60"	EA	\$2,000.00		\$
Encasement	LF	\$65.00		\$
Energy Dissipater	LS	\$10,000.00		\$
Grate Inlet, 12" x 12"	EA	\$500.00		\$
Grate Inlet, 24" x 24"	EA	\$1,300.00		\$
Grate Inlet, 36" x 36"	EA	\$5,000.00		\$
Headwalls, Gravity Type	EA	\$2,000.00		\$
Headwalls, Wing Type	EA	\$9,000.00		\$

Inlet Apron	EA	\$3,000.00		\$
Junction Structure	EA	\$10,000.00		\$
Manhole, H<8'	EA	\$6,000.00		\$
Manhole, H>8'	EA	\$8,000.00		\$
Pipe, 18" RCP	LF	\$159.00		\$
Pipe, 24" RCP	LF	\$201.00		\$
Pipe, 30" RCP	LF	\$241.00		\$
Pipe, 36" RCP	LF	\$280.00		\$
Pipe, 42" RCP	LF	\$318.00		\$
Pipe, 48" RCP	LF	\$355.00		\$
Pipe, 54" RCP	LF	\$391.00		\$
Pipe, 60" RCP	LF	\$426.00		\$
Pipe, 66" RCP	LF	\$461.00		\$
Pipe, 72" RCP	LF	\$495.00		\$
Pipe, 78" RCP	LF	\$528.00		\$
Pipe, 84" RCP	LF	\$561.00		\$
Rip-Rap, Grouted	SF	\$10.00		\$
Rip-Rap, Grouted	Ton	\$75.00		\$
Transition Structure	EA	\$5,000.00		\$
Underwalk Drain, W<6'	EA	\$3,000.00		\$
Underwalk Drain, W>6'	EA	\$4,000.00		\$
OTHER=				\$
OTHER=				\$
OTHER=				\$
SUBTOTAL				\$

Street Lights				
Pull Box No. 3 1/2	EA	\$500.00		\$
Pull Box No. 5	EA	\$700.00		\$
Service Point	EA	\$7,000.00		\$
St. Light, 501 - 1 only	EA	\$5,000.00		\$
St. Light, 501 - 2 to 5	EA	\$4,900.00		\$
St. Light, 501 - 5+	EA	\$4,800.00		\$
St. Light, 502 - 1 only	EA	\$5,500.00		\$
St. Light, 502 - 2 to 5	EA	\$5,400.00		\$
St. Light, 502 - 5+	EA	\$5,300.00		\$
St. Lt. Conduit, 1" Sch 80				\$
<500 LF	LF	\$12.00		\$
>500 LF	LF	\$10.00		\$
St. Lt. Conduit, 1 1/2				\$
<500 LF	LF	\$16.00		\$
>500 LF	LF	\$14.00		\$
OTHER=				\$
OTHER=				\$

SUBTOTAL \$ _____

Traffic

Signal, 6 phse+MstrCont.	EA	\$300,000.00	_____	\$
		0		
Signal, 8 phse+MstrCont.	EA	\$350,000.00	_____	\$
		0		
Signal, Both+Intrconnect	LF	\$25.00	_____	\$
Striping, 4" Sld wht/ylw	LF	\$0.50	_____	\$
Striping, 8" Sld wht/ylw	LF	\$0.65	_____	\$
Striping 12" Sld wht/ylw	LF	\$2.50	_____	\$
Striping, Skip	LF	\$0.35	_____	\$
Striping, Double	LF	\$0.75	_____	\$
			SUBTOTAL	\$

Walls

Retaining Walls	SF	\$15.00	_____	\$
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Miscellaneous

Barricade, 40'	EA	\$1,600.00	_____	\$
Water Lateral	EA	\$5,000.00	_____	\$
Water Meter Installation	EA	\$2,500.00	_____	\$
Paving Replacement, Trench	LF	\$16.00	_____	\$
Pressure Reducing Station	EA	\$90,000.00	_____	\$
Shoring for Trenches > 5' Deep	LF	\$17.00	_____	\$
Street Name Signs	EA	\$500.00	_____	\$
OTHER=	_____	_____	_____	\$
OTHER=	_____	_____	_____	\$
OTHER=	_____	_____	_____	\$
OTHER=	_____	_____	_____	\$
OTHER=	_____	_____	_____	\$
			SUBTOTAL	\$

Sewer

Manhole, 5' dia., 12' to 20' deep	EA	\$10,000.00	_____	\$
Manhole, 5' dia. > 20' deep	EA	\$13,000.00	_____	\$
Pipe, 4" VCP	LF	\$70.00	_____	\$
Pipe, 6" VCP	LF	\$106.00	_____	\$

Pipe, 8" VCP	LF	\$142.00		\$
Pipe, 10" VCP	LF	\$178.00		\$
Pipe, 12" VCP	LF	\$215.00		\$
Pipe, 15" VCP	LF	\$270.00		\$
Pipe, 4" DIP	LF	\$70.00		\$
Pipe, 6" DIP	LF	\$106.00		\$
Pipe, 8" DIP	LF	\$142.00		\$
Pipe, 10" DIP	LF	\$178.00		\$
Pipe, 12" DIP	LF	\$215.00		\$
Pipe, 15" DIP	LF	\$270.00		\$
SUBTOTAL				\$

Miscellaneous Sewer				
Adjust Manhole	EA	\$2,000.00		\$
Clean Out	EA	\$2,000.00		\$
Saddle	EA	\$2,610.00		\$
OTHER=				\$
OTHER=				\$
OTHER=				\$
SUBTOTAL				\$

Water				
Pipe, 4" DIP	LF	\$43.00		\$
Pipe, 6" DIP	LF	\$57.00		\$
Pipe, 8" DIP	LF	\$75.00		\$
Pipe, 10" DIP	LF	\$93.00		\$
Pipe, 12" DIP	LF	\$105.00		\$
Valve, 4"	EA	\$1,500.00		\$
Valve, 6"	EA	\$1,800.00		\$
Valve, 8"	EA	\$2,800.00		\$
Valve, 10"	EA	\$4,000.00		\$
Valve, 12"	EA	\$5,300.00		\$
Valve, 16"	EA	\$7,500.00		\$
SUBTOTAL				\$

Miscellaneous Water				
Air & Vac, 1"	EA	\$2,700.00		\$
Fire Hydrant, 6"	EA	\$4,900.00		\$
Fire Service, 6"	EA	\$12,000.00		\$
Fire Service, 8"	EA	\$20,000.00		\$
Fire Service 10"	EA	\$30,000.00		\$
Hot Tap, 8"	EA	\$3,550.00		\$
Hot Tap, 10"	EA	\$3,900.00		\$

Hot Tap, 12"	EA	\$4,750.00	_____	\$ _____
Service, 1"	EA	\$2,500.00	_____	\$ _____
Service, 2"	EA	\$3,400.00	_____	\$ _____
OTHER=	_____	_____	_____	\$ _____
OTHER=	_____	_____	_____	\$ _____
OTHER=	_____	_____	_____	\$ _____
			SUBTOTAL	\$ _____
			TOTAL COST	\$ _____

PREPARED BY:

Engineer's Name & Signature

WET STAMP & DATE

Company

Tel No/Email

QUANTITY ESTIMATE FOR GRADING MARCH 2018

Project #: _____

Location: _____

<i>Item</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Quantity</i>	<i>Cost</i>
Grading Improvements - Concrete and Drainage Facilities				
Curb & Gutter, 6"	LF	\$42.00	_____	\$
Curb & Gutter, 8"	LF	\$44.00	_____	\$
Cross Gutter & Spandrel	SF	\$29.00	_____	\$
Box Culvert (Including Backfill)	CY	\$3,500.00	_____	\$
Box Culvert (Unapp. Areas)	CY	\$2,500.00	_____	\$
Catch Basin, W<8'	EA	\$7,000.00	_____	\$
Catch Basin, W>8'	EA	\$10,500.00	_____	\$
Channel, Reinf. Concrete Lined	SF	\$13.00	_____	\$
Channel, Open Concrete <24"	LF	\$150.00	_____	\$
Channel, Open Concrete 27"-36"	LF	\$250.00	_____	\$
Channel, Open Concrete 42"-72"	LF	\$500.00	_____	\$
Collar, 45"-60"	EA	\$1,300.00	_____	\$
Collar, >60"	EA	\$2,000.00	_____	\$
Encasement	LF	\$65.00	_____	\$
Energy Dissipater	LS	\$10,000.00	_____	\$
Grate Inlet, 12" x 12"	EA	\$500.00	_____	\$
Grate Inlet, 24" x 24"	EA	\$1,300.00	_____	\$
Grate Inlet, 36" x 36"	EA	\$5,000.00	_____	\$
Headwalls, Gravity Type	EA	\$5,000.00	_____	\$
Headwalls, Wing Type	EA	\$9,000.00	_____	\$
Inlet Apron	EA	\$3,000.00	_____	\$
Junction Structure	EA	\$10,000.00	_____	\$
Manhole, H<8'	EA	\$6,000.00	_____	\$
Manhole, H>8'	EA	\$8,000.00	_____	\$
Pipe, 18" RCP	LF	\$159.00	_____	\$
Pipe, 24" RCP	LF	\$201.00	_____	\$
Pipe, 30" RCP	LF	\$241.00	_____	\$
Pipe, 36" RCP	LF	\$280.00	_____	\$
Pipe, 42" RCP	LF	\$318.00	_____	\$
Pipe, 48" RCP	LF	\$355.00	_____	\$
Pipe, 54" RCP	LF	\$391.00	_____	\$
Pipe, 60" RCP	LF	\$426.00	_____	\$
Pipe, 66" RCP	LF	\$461.00	_____	\$
Pipe, 72" RCP	LF	\$495.00	_____	\$
Pipe, 78" RCP	LF	\$528.00	_____	\$
Pipe, 84" RCP	LF	\$561.00	_____	\$

Rip-Rap, Grouted	SF	\$10.00		\$
Rip-Rap, Grouted	TON	\$75.00		\$
Transition Structure	EA	\$5,000.00		\$
Underwalk Drain W<6'	EA	\$2,500.00		\$
Underwalk Drain W>6'	EA	\$3,500.00		\$
Retaining Walls	SF	\$15.00		\$
V-Gutter	SF	\$10.00		\$
Earthwork (Cut & Fill)	CY	\$3.00		\$
Other:				\$
			SUBTOTAL	\$

Erosion Control

(Items and cost to be provided by Engineer)

Other:				\$
			SUBTOTAL	\$
			TOTAL COST	\$

PREPARED BY:

 Engineer's Name & Signature

 Company

 Tel No/Email

**WET STAMP &
 DATE**