



Construction Documents (CDs) Checklist

A complete Construction Document (CD) submittal will contain the following information. Please check off the items to ensure that your application is complete. Please submit one (1) hardcopy and one (1) electronic copy of each document required. Plan sets shall be 24" x 36". PDF format is preferred.

Pre-Application Meeting Date: _____ Project Manager: _____
 Email: _____ Phone: _____

Req'd	Cmpl'd	Subm'd	Submittal Checklist
			LAND USE APPLICATION (completed/signed)
			SUBMITTAL CHECKLIST (completed)
			DEVELOPMENT REVIEW FEE (Amt. Req'd \$ _____ Amt. Rec'd \$ _____)
			PROPERTY OWNER APPROVAL If any work is proposed on land not owned by the applicant, a letter of approval from the landowner is required.
			PROJECT NARRATIVE
			<u>Compliance.</u> Description of compliance or variations from approved Site Development Plan (SDP), or previously approved Final PD Site Plan (FPD).
			<u>Variations.</u> Clearly identify any areas that vary from the approved Site Development Plan, the causes for the variation and how the variations impact surrounding properties.
			<u>Technical Compliance.</u> Describe compliance with Technical Manuals and list any previously approved or proposed technical criteria variances.
			CONSTRUCTION PLANS containing the site design details, including the overall site plan, applicable phase plans, roadway plan with profiles, utility plan with profiles, grading plan, signage, striping and lighting plans, final landscape and irrigation plans, and all applicable construction details and notes. Follow specific formatting on following pages.
			HAUL ROUTE MAP Show route of travel to/from site for fill/borrow.
			DAILY CONSTRUCTION TRAFFIC MAP Show route of travel to/from site to I-25.
			PHASE III DRAINAGE REPORT
			FINAL UTILITY REPORT
			ENGINEER'S COST ESTIMATE (using the Town's standard template)
			TECHNICAL CRITERIA VARIANCE Complete a Technical Criteria Variance form with appropriate supporting information describing any proposed deviations from the Technical Design Criteria in the Technical Manuals.
			CHECKLISTS Submit any checklist used for Plan preparation and all reports
			EASEMENTS If the proposed project requires any new easements, submit the legal description and exhibits confirming the location of the easements. Easements are typically needed for utility main lines, drainage features, sight distance lines, and sidewalk on private land.

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			OWNERSHIP AND ENCUMBRANCE If easements will be needed , then submit a current Ownership and Encumbrance report with the Easement exhibit and legal description.
			TEMPORARY FIRE ACCESS APPARATUS PLAN If the proposed building construction is not located within 150 feet (to all points) from a paved roadway, please submit a temporary fire access apparatus plan for review by Castle Rock Fire Department.

A complete set of Construction Drawings (CDs) should contain the following information. The specific plan sheets are listed below in the order they should appear in the Plan set. All CDs submitted to the Town of Castle Rock (TCR) for review, comment, and approval shall be prepared by, or under the direct supervision of a Professional Engineer licensed in the State of Colorado. Improvements within public rights-of-way or utility easements are required to be designed, approved, and constructed in accordance with the Town's Regulations, requirements of the Municipal Code, the latest TCR Technical Manuals

Req'd	Cmpl'd	Subm'd	Formatting Checklist
			GENERAL—TO BE LOCATED ON ALL SHEETS
			<u>North Arrow.</u> The North arrow shall be oriented so north is up or to the right on each sheet.
			<u>Scale.</u> Scales for all Plan and profile sheets: 1" = 50' horizontal; 1" = 5' or 10' vertical; Overall Plan 1" = 100'. Show bar scale. (Other scales may be used upon Town approval.)
			<u>Vertical Datum.</u> The vertical datum used for design and construction of facilities shown in the Plans shall conform to NAVD88 vertical datum criteria. <u>Assumed vertical datum or adjustment equations will not be allowed.</u>
			<u>Horizontal Control.</u> Provide a Basis of Bearings Statement. For the Post-Construction Record Drawings, a CAD drawing of the overall design shall be submitted in Colorado State Plan Coordinates, NAD83, Feet, Central Zone.
			<u>Legend.</u> Each sheet shall show the symbols pertaining to the sheet. Show Existing items screened back, show Proposed items in dark font.
			<u>Professional Engineer's Certification.</u> (See CD Signature Blocks and Notes document for wording) List name and Colorado PE registration number below signature line. Review plans do not need to be stamped, signed and dated at submittal however they do need to be stamped, signed and dated prior to Town Approval.
			<u>Town Approval Signature Block.</u> (See CD Signature Blocks and Notes document for wording) Locate in bottom right corner of each sheet.
			<u>Dates.</u> All sheets shall have dates shown for "Issued for Construction XX/XX/XXXX" and a place to track approved revisions (i.e. Field Change Orders) made after being issued for construction.
			<u>Project Boundaries, Property Lines, Lot and Block numbers, Section Corners and Rights-of-Way (ROW)</u>
			<u>Easements.</u> Show all Existing and Proposed Easements – include type, width and recordation information
			<u>Street Names.</u> Show all adjacent street names and label ROW width.
			<u>Limits of Construction.</u> Clearly demark the limits of construction (LOC). There should be no work outside of this LOC.
			<u>Existing Facilities.</u> Show existing facilities that are remaining or in a screened back/lighter line type. Clearly label existing facilities that are being demolished.
			<u>Key Map.</u> For large projects, each of the Plan and profile sheets should provide a key map showing the area being detailed.
			<u>Building Locations.</u> (if applicable) Show Existing and proposed building footprints.

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			COVER SHEET
			<u>Title.</u> "PUBLIC IMPROVEMENT CONSTRUCTION PLANS" shall be placed in large letters at the top center of the page, followed by the subdivision name. The brief legal description of the project shall be placed below this, followed by "Town of Castle Rock Project No. CDxx-xxxx".
			<u>Names and Addresses.</u> Names, addresses and phone numbers must be provided for the design project team, including owners, developers, plan preparer, engineer and land surveyor. Addresses and phone numbers shall be provided for all Dry Utility Companies, as well as the Town of Castle Rock Public Works department.
			<u>Sheet Index.</u> For multiple sheets, a sheet index must be provided on the first sheet. Key maps must be provided where needed. Number sheets consecutively (1 of x) and place sheet numbering in the bottom right corner of each sheet.
			<u>Vicinity Map.</u> A vicinity map should show the Development area and all major roads within one (1) mile at a minimum scale of 1" = 2000' with a north arrow.
			<u>Legend.</u> Show Existing items screened back, show Proposed items in dark font.
			<u>Professional Engineer's Certification.</u> (See CD Signature Blocks and Notes document for wording) List name and Colorado PE registration number below signature line. Review plans do not need to be stamped, signed and dated at submittal however they do need to be stamped, signed and dated prior to Town Approval.
			<u>Indemnification and Adherence to Standards Statement.</u> (See CD Signature Blocks and Notes document for wording)
			<u>Town Approval Signature Block.</u> (See CD Signature Blocks and Notes document for wording) Locate in bottom right corner of each sheet.
			<u>Town General Notes</u> (See CD Signature Blocks and Notes document for notes)
			<u>Approved Variances.</u> List any Town approved or proposed Variances from the Technical Manuals that apply to this project. List Variance number, description, conditions of approval and approval date. If variances are being applied for with the CD review, leave the conditions of approval and date blank.
			<u>Typical Street Section(s).</u> Provide any applicable horizontal or vertical dimensions in addition to providing a section of all improvements within the Right-of-Way. A section should be provided for each roadway type planned within the Project. Include dimensions for Flow line to flow line and ROW width. Label type of curb, gutter and sidewalk, pavement section (or reference Pavement design report), and cross slopes.
			CONSTRUCTION NOTES
			<u>Town Standard Construction Notes.</u> (See CD Signature Blocks and Notes document for wording) List the applicable Town Standard Notes on this sheet: Water Line Construction, Sanitary Sewer Construction, Street Construction, Signing and Striping, Storm Drainage Construction, and Fire
			<u>Notes.</u> List any other general construction notes on this sheet.
			OVERALL PLAN OR PHASING PLAN
			<u>Overall Layout.</u> In Plan view, depict the entire development at a minimum scale of 1" = 100', and include all exterior boundaries of the Project, lot lines, Rights-of-Way, easements, existing public and private utilities, street lighting, traffic signals and all related devices, water system with all related appurtenances and service lines, sanitary sewer system with all related appurtenances, handicap ramps, sidewalks, curbs and gutters, bike paths, storm drainage facilities with all related appurtenances, and any other Public or Private Improvements that may exist or are proposed within the Project area. Show all Street Names and Lot and Block numbers.

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			<u>Phasing.</u> If phasing is known at this time, show phasing by thick, darker ghosted lines. Include phasing notes for each phase specifying phase order, if known; or state that each phase is independently sustainable; clearly list what improvements occur in each phase and any special notes related to temporary appurtenances needed between phases, i.e. interim turnarounds for dead end roads.
			GRADING PLAN
			<u>Grading.</u> Show existing and proposed grading at one-foot contour intervals extending 20 feet beyond the property line. For residential overlot grading, show flow arrows on all lot lines indicating swale placement with individual home construction. No more than two similarly sized lots may drain onto one. Show all retaining walls and label top of wall and bottom of wall elevations. Walls greater than 4 feet from bottom of footing to top of wall require a separate submittal for a building permit. Contact the Building Department for wall permit requirements.
			<u>Floodplain.</u> Show boundary of the one-hundred-year floodplain. Dashed lines must be used to show any proposed modification to drainage channels and floodplains. If no floodplains exist on the property, please place a note on the cover sheet.
			<u>Drainage.</u> Show stormwater conveyance features and the location of all stormwater facilities.
			<u>Natural Features.</u> Show drainage channels and other significant natural features and significant vegetative stands within the property boundary and 100 feet beyond the property boundary.
			ROADWAY IMPROVEMENTS
			<u>General.</u> Includes Plan and profile for each street proposed in this Plan. Cross-sections may also be required as part of this section of the Plan set and shall be at intervals deemed necessary by the Town to effectively evaluate connection with the existing roadway facilities (typically every 25' horizontally).
			<u>Roadway Plan Views:</u>
			Sight Distance and Safety Triangles at corners and intersections, which must be kept free of visually obstructing (30 inches or higher) objects. Sight and safety triangles must comply with Transportation Criteria Manual. If lot is already platted, sight distance easements must be recorded by separate document.
			Stationing at 100-ft Intervals, Points of Horizontal Curve, Points of Horizontal Tangent, and Centerline Intersection of Streets
			Dimensions for Flow line to flow line and ROW width for each street.
			Topography, as necessary, for plan review. Show steep grades in or adjacent to right-of-way.
			Traffic Calming, as necessary per Transportation Design Criteria Manual.
			Horizontal Alignment of Tangent Lengths, Tangent Bearings, Curve Length, Curve Radius, Degree of Curve/Delta of Curve, and Superelevation Data
			Existing and Proposed Curb, Gutter and Sidewalks on or adjacent to site
			Label Crosspans, Valley Gutters, Handicap Ramps and Radius of Curb Returns
			Existing and Proposed Obstructions, such as culverts/bridges, vaults, catch basins, traffic islands, street lights, walls or other permanent structures on or adjacent to site
			<u>Roadway Profiles:</u>
			Existing ground and proposed profile and grade at centerline of roadway. Observe permissible intersection grades and cross slopes. Show flowline profiles where not symmetrical with centerline of street.
			Stationing and Elevations at Points of Vertical Curve, Vertical Tangent, and Vertical Tangent Intersections

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			Vertical curve data, i.e. length and k-value.
			Flowline profiles at all Intersecting Streets (except local-local intersections or driveways)
			Flowline profiles at Cul-de-sacs and Bulbs
			Show any culverts or bridges on profile.
			<u>Typical Street Section(s)</u> (if not shown on cover sheet). Provide any applicable horizontal or vertical dimensions in addition to providing a section of all improvements within the Right-of-Way. A section should be provided for each roadway type planned within the Project. Include dimensions for Flow line to flow line; back of walk to back of walk; and ROW width. Label type of curb, gutter and sidewalk, pavement section (or reference Pavement design report), and cross slopes.
			ROADWAY DETAILS
			<u>Details</u> Include all pertinent details related to the roadway improvements. Use Town of Castle Rock Standard Details, as applicable. (http://www.crgov.com/index.aspx?nid=435)
			STORMWATER PLAN AND PROFILE
			<u>General.</u> Includes Plan and profile and/or cross-section of all swales, pipes and outlets (annotated with Hydraulic Grade Line), as recommended in the Phase III Drainage Report. Includes all minor and major facility improvements. Include geometric, dimensional, structural, foundation, bedding hydraulic and other details as needed to construct the stormwater management facilities. Other requirements shall be as identified in the Town of Castle Rock Storm Drainage Design and Technical Criteria Manual.
			STORMWATER DETAILS
			<u>Details</u> Include all pertinent details related to the stormwater improvements. Use Town of Castle Rock Standard Details, as applicable. (http://www.crgov.com/index.aspx?nid=435)
			OVERALL WATER SYSTEM
			<u>General.</u> In Plan view (Scale is 1" = 50' minimum), provide all information and dimensions for horizontal layout and valves, kickblocks, reducers, tees, hydrants, services, and any other appurtenance that is part of the potable water system. Profile views will only be required in special cases such as utility crossings, off-site construction not entirely supported by profile views in the Plan set for either streets, storm drain or sanitary sewer, or in other cases where blow-offs or airvacs may be necessary. Where appropriate, the Town's Standard details shall be referenced.
			WATER SYSTEM PLAN AND PROFILE
			<u>Water Plan Views:</u>
			Locations, Sizes and Material of all Existing and Proposed Utility Lines and Appurtenances on and adjacent to site
			Proposed Tie-Ins to Existing Improvements
			Location of all Existing Water Wells and Individual Sewage Disposal Systems (ISDS) on and adjacent to site
			All needed off-site Improvements, extensions or services, or upgrades to the TCR System
			Boundaries of Town's pressure zones, or note stating the pressure zone if entire site is in only one pressure zone
			Existing and Proposed Obstructions, such as vaults, catch basins, traffic islands, street lights, walls or other permanent structures on or adjacent to site

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			<u>Water Profiles:</u>
			Existing and Proposed grade line
			All High Points and Low Points along mains
			Utility Crossings – include types and sizes of lines, stationing, coordinates at each end of pipe encasement (if applicable), and TOP and BOP elevations and vertical clearance
			WATER DETAILS
			<u>Details</u> Include all pertinent details related to the water improvements. Use Town of Castle Rock Standard Details, as applicable. (http://www.crgov.com/index.aspx?nid=435)
			SANITARY SEWER SYSTEM PLAN AND PROFILE (can include on Roadway Plan & Profile)
			<u>General.</u> In Plan and profile, provide vertical and horizontal alignments, connections, manhole rim and invert depths, and sizing.
			<u>Sanitary Sewer Plan Views:</u>
			Locations, Sizes and Material of all Existing and Proposed Utility Lines and Appurtenances on and adjacent to site
			Proposed Tie-Ins to Existing Improvements
			Location of all Existing Water Wells and Individual Sewage Disposal Systems (ISDS) on and adjacent to site
			All needed off-site Improvements, extensions or services, or upgrades to the TCR System
			Existing and Proposed Obstructions, such as vaults, catch basins, traffic islands, street lights, walls or other permanent structures on or adjacent to site
			<u>Sanitary Sewer Profiles:</u>
			Existing and Proposed grade line
			Manhole number, station and elevation of manhole rims; inverts and sizes of all pipes coming into and going out of manholes.
			Slope of main line between each manhole
			Utility Crossings – include types and sizes of lines, stationing, coordinates at each end of pipe encasement (if applicable), and TOP and BOP elevations and vertical clearance
			SANITARY SEWER DETAILS
			<u>Details</u> Include all pertinent details related to the sanitary sewer improvements. Use Town of Castle Rock Standard Details, as applicable. (http://www.crgov.com/index.aspx?nid=435)
			SIGNAGE, STRIPING AND LIGHTING PLAN
			<u>Traffic Signing And Pavement Markings:</u> All permanent and temporary traffic signing and pavement markings shall be included on these sheet(s) with the existing and proposed street system used as the base layout. Locations of signs and pavement markings shall be indicated by station/offset or other specific dimensions indicating exact locations. Pavement marking and sign types shall be indicated on these Plan sheet(s) (i.e., epoxy paint with x/x glass-to-bead ratio, R1 -1 Stop Sign, etc.). This sheet shall also contain any construction or application notes (i.e., application temperatures, surface cleaning methods to be used prior to application, etc.).
			<u>Street lights.</u> Show existing, proposed and relocated street lights.
			<u>Temporary Signing.</u> Show all barricades for interim dead end streets, if necessary.

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			TRAFFIC SIGNAL PLAN
			These sheet(s) shall show all Plan views and details necessary to construct a traffic signal. Equipment, materials and installation shall conform to CDOT <i>Standard Specifications for Road and Bridge Construction</i> and the National Electrical Code. The traffic signal(s) shall also contain an emergency vehicle preemption device as specified by the TCR Transportation Criteria Manual.
			LANDSCAPE PLAN
			<u>Licensed Landscape Architect Signature Block.</u> Most landscape plans must be prepared by a Colorado Licensed Landscape Architect. In a few cases, the plan can be prepared by a Town registered design professional instead (review the TCR Landscape Manual for this criteria). Town registration requires attendance at a Landscapers Registration class and testing. List the design professionals name and registration number and type below the signature line.
			<u>North Arrow and Scale.</u> A north arrow is required. Provide a scale, both graphic and written. The recommended scale is 1 in. = 20 ft. with a maximum scale of 1 in. = 60 ft.
			<u>Property Lines.</u> The boundary line of the site must be shown in a heavy solid line with dimensions, bearings and control points indicated along all exterior property lines. For all lots, tracts and blocks indicate purpose, identification number bearings and square footage.
			<u>Building Location.</u> Existing and proposed building footprints.
			<u>Easements.</u> Show, identify and dimension all existing and proposed easements.
			<u>Utilities.</u> Show and label all existing and proposed utility lines, including water, sanitary sewer and stormwater facilities. Label distance from closest tree if location is close to 10 foot minimum to water or sanitary sewer main lines.
			<u>Contours.</u> Show the proposed grade, in minimum two-foot contour intervals. Label and call out slope areas in "X:1" format. 3:1 slopes are the maximum allowed.
			<u>Landscaped Areas.</u> Locate and identify all existing and proposed elements including trees and shrubs drawn at mature size, turf areas and other groundcovers, and ornamental nonliving materials.
			<u>Landscape Structures.</u> Locate, dimension and identify landscape structures including fences, signs, lighting, water features, etc. and recreational facilities including structures, equipment, courts and parking areas.
			<u>Natural Vegetation.</u> Locate, dimension and identify all areas of significant natural vegetative areas, specimen trees, wildlife habitat and landscape features to be preserved and/or improved.
			<u>Plant Legend.</u> Use Town of Castle Rock Plant Legend. (http://www.crgov.com/index.aspx?nid=180)
			<u>Site Inventory Chart.</u> Complete Commercial Landscape Site Inventory Chart (<i>if a commercial site</i>). (http://www.crgov.com/index.aspx?nid=180)
			<u>Materials.</u> List of quantities, types and sizes of landscaping material to be utilized. Plant materials shall be listed by both common and botanical name. <i>Please note:</i> Non-living ground cover that is covered by the spread of shrubs or groundcovers may be counted as living ground cover. Non-living groundcover does not include sidewalks or parking areas, which are not counted as part of the total landscape area. The maximum non-living groundcover area is 25% of the total landscape area. The maximum irrigated turf area is 60% of the total site landscape. Bluegrass is not permitted in landscapes for non-residential properties or streetscapes. It can be allowed on sports fields but the total project must comply with the Town's Irrigated Public Area Water Conservation Ordinance (see Municipal Code and TCR Landscape Manual)
			<u>Sight Distance Triangles.</u> Label Sight Distance and Safety Triangles at corners and intersections, which must be kept free of visually obstructing (30 inches or higher) objects and plant material. Sight and safety triangles must comply with Transportation Criteria Manual. Certain trees with limb heights of 8 feet or higher may be allowed on a case-by-case basis.

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			<u>Berms.</u> Show typical cross-section of proposed berm areas.
			<u>Pedestrian Areas.</u> Locate and dimension existing and proposed sidewalks and other pedestrian-oriented areas and identify type of surface and materials.
			LANDSCAPE DETAILS AND NOTES
			<u>Details.</u> Include all pertinent details related to the landscape plan. Use Town of Castle Rock Standard Details, as applicable. (http://www.crgov.com/index.aspx?nid=435)
			<u>Town Standard Landscape Notes.</u> (See CD Signature Blocks and Notes document for wording)
			<u>Other Notes.</u> List any other general landscape notes on this sheet.
			IRRIGATION PLAN
			<u>Town Registration and Licensing</u> All irrigation designers must attend a Town of Castle Rock Landscapers Registration class and pass a test in order to be allowed to design in the Town; all irrigation plans must include the designer's Town registration number.
			<u>Irrigation Plan.</u> Layout and identify method of irrigation for each planting area (spray heads, bubblers, etc.). <i>Please note</i> all spray-irrigated areas must be at least 10 feet wide.
			<u>Tap and Meter.</u> Identify size and location of irrigation tap and meter.
			<u>Backflow Preventer.</u> Identify size and location of backflow preventer.
			<u>Hydraulic Worksheet.</u> Include in plan set the completed Town of Castle Rock Hydraulic Worksheet. (http://www.crgov.com/index.aspx?nid=180)
			<u>Irrigation Chart.</u> Include in plan set the completed Town of Castle Rock Irrigation Chart. (http://www.crgov.com/index.aspx?nid=180)
			IRRIGATION DETAILS AND NOTES
			<u>Details.</u> Include all pertinent details related to the irrigation plan. Use Town of Castle Rock Standard Details, as applicable. (http://www.crgov.com/index.aspx?nid=435)
			<u>Town Standard Irrigation Notes.</u> (See CD Signature Blocks and Notes document for wording)
			<u>Other Notes.</u> List any other general irrigation notes on this sheet.
			ILLUMINATION PLAN (See Chapter 17.58 of the Municipal Code)
			<u>Property Lines.</u> The boundary line of the site must be shown in a heavy solid line with dimensions, bearings and control points indicated along all exterior property lines.
			<u>Building Location.</u> Existing and proposed building footprints.
			<u>Luminary Location.</u> Show location and height above grade of all luminaries.
			<u>Type and Wattage.</u> List the type and initial lumen rating and wattage of each lamp source.
			<u>Luminary Style.</u> List the style of the luminary, IESNA photometric distribution type including any shielding information such as house side shields, and internal and exterior shields. Please note that all lighting must be IESNA full cut-off unless otherwise specified in Table 1 of the outdoor illumination regulations.
			<u>Timer Controls.</u> Control descriptions including type of controls, the luminaries to be controlled by each type, and control schedule. Post curfew control method and schedule must be addressed in the plan.

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			<p><u>Photometric Plan.</u> A computer generated lighting calculation indicating initial horizontal luminance (light loss factor LLF = 1.0) on a 10 foot by 10 foot minimum grid across the entire site and a minimum of 10 feet beyond the property line. The calculation grid shall also indicate the maximum to minimum uniformities for each specific area including parking, circulation areas, plazas, canopies, pedestrian areas, and other common public areas. All exterior mounted luminaries including building, pedestrian and landscape lighting shall be included.</p>
			<p><u>Sign Lighting.</u> Sign lighting description including luminary type, mounting details, lamp lumen rating, and luminance (candela per square meter) for internally illuminated signs and exposed lamp sources including LED, and control means during pre-curfew and post-curfew hours.</p>
			<p><u>Sports Facilities.</u> For sports facilities, provide aiming angles and diagrams for sports lighting luminaries.</p>
			<p><u>Forward Throw Luminaries.</u> Forward throw luminaries (Type IV distribution), pole-mounted lights aimed at a building's façade, and unshielded wall packs are prohibited.</p>