What is a Diverging Diamond Interchange (DDI):

• A grade-separated interchange design where arterial traffic crosses to the other side of the roadway between the freeway ramps.
• Vehicles can turn left onto and off freeway ramps without stopping or crossing opposing lanes of traffic.
• Right turns onto and off the freeway ramps occur either before or after the crossover intersections, when traffic is on the “correct” side of the road.
• Both crossover intersections are signalized.
• Interchange can be designed as an overpass or underpass.

What is a Restricted Crossing U-Turn (RCUT):

• Intersection design where all side street movements begin with a right turn.
• Side street left-turn and through vehicles turn right and make a u-turn at a dedicated downstream median opening to complete the desired movement.
• Main intersection and median u-turns can be designed as signalized, stop controlled, or yield controlled.

Benefits of a DDI:

• **Improved safety:** Reduces the number of points where vehicles may cross paths.
• **Increased efficiency:** Crossovers can operate with only two traffic signal phases, which allows the interchange to handle a greater volume of traffic and operate with less delay.
• **Easier access to freeway:** Design allows traffic to enter and exit the freeway without crossing opposing lanes of traffic.
• **Cost effective:** Since there are no left-turn lanes on the arterial, a DDI can have a narrower cross section and may be more cost effective than a retrofit or new interchange construction.

Benefits of a RCUT:

• **Improved safety:** Reduces the number of points where vehicles cross paths and eliminates the potential for head-on crashes.
• **Increased efficiency:** Each direction of the major street can operate independently creating two one-way streets and increasing the overall intersection capacity.
• **Shorter wait times:** Fewer traffic signal phases means less stopping for mainline vehicles and right turns only from the side street vehicles means less time waiting.
• **Cost-effective:** A RCUT can be more cost-effective than adding lanes to improve capacity.