



Title: Pedestrian Connection Plan Preparation and Documentation

6/13/2018

To improve the consistency and quality of information presented in the construction plans sets that are generated for the Delaware Department of Transportation in regards to proposed pedestrian connections. This Engineering Instruction does not cover the requirements of the information to be provided in the construction plan set for laying out proposed curb runs.

General

During the design phase of a project, it is imperative to consider the constraints that construction of a proposed pedestrian connection may encounter. Constraints can include any combination of the following:

- Project scope,
- Existing topography,
- Existing features, and
- Existing right-of-way.

The constraints present at a proposed pedestrian connection will determine the type and detail of information that must be provided in the construction plans. In general, the more constraints a location has the more information must be provided in order to construct the location as per the Contract Documents.

Based on the type of constraints associated with a pedestrian connection location, the Department has classified three different and unique presentation requirements. Each pedestrian connection on a project should be evaluated individually to determine that amount of information that is required to be presented in the construction plan set. Included in this guidance as Appendix A are Model Plans which present the information required to be provided in the construction plan sets based upon the constraints present at a proposed pedestrian connection for the Delaware Department of Transportation.

The Engineer of Record in combination with the DelDOT Project Manager will make the determination as to the constraints present at a proposed pedestrian connection location and what information must be generated and displayed in the construction plan sets in relation to the requirements of this Engineering Instruction. Additional information which does not get documented in the construction plan sets can be generated as deemed necessary by the Engineer of Record for design and verification purposes.

When it is determined during construction that a pedestrian connection cannot be built as per plan, all questions should be directed back to the Engineer of Record. The Engineer of Record will be responsible for facilitating a Request for Practical Exception when determined necessary during the construction phase.

Unconstrained Pedestrian Connection

Unconstrained construction occurs where the existing environment can be readily altered during construction activities. Specifying a Standard Construction Detail in the construction plans for each location is appropriate. When a Standard Construction Detail is to be used in this environment, the designer should specify the pedestrian connection type on the plans and also provide a geometric point on the Grades and Geometrics sheet at the intersection of the middle of the pedestrian access route and the back of the curb.



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It is important that the Engineer of Record verify that a Standard Construction Detail is applicable to the location and that no project constraints will prohibit its use.

Right-of-Way Constrained Pedestrian Connection

Right-of-Way constrained construction occurs where the existing environment cannot be readily altered during construction activities because of the proximity of the existing or proposed right-of-way boundary. In these types of constrained environments a pedestrian connection specific Construction Detail is required to verify that a PAS Manual compliant pedestrian connection will fit within the project's available right-of-way. The Construction Plan sheet which shows the pedestrian connection should identify that a location specific Construction Detail was developed and included in the plans. It is important to note that additional survey during the design phase may be required in order to accurately design these locations.

A Standard Construction Detail should first be considered in these constrained conditions. If it is determined that a Standard Construction Detail is applicable, the location specific Construction Detail should show all the proposed components of the pedestrian connection to verify that it fits within the existing or proposed project's right-of-way. All components shown in the Standard Construction Detail must be shown and include but not limited to: landing/ turning space, ramp, flares, blended transition, transition segments and detectable warning system. As with the requirements of the Unconstrained Pedestrian Connection, when a Standard Construction Detail will be the basis of design and construction a geometric point should be included in the Construction Detail of the ramp at the intersection of the middle of the pedestrian access route and the back of the curb.

If a Standard Construction Detail cannot be used for a particular pedestrian connection location as it would extend outside of the existing or proposed right-of-way, consideration should be given to acquiring additional right-of-way. If acquiring additional right-of-way is outside of the scope of a project, then a Construction Detail must be created in accordance with the section entitled "Existing Feature Constrained Pedestrian Connection".

Existing Feature Constrained Pedestrian Connection

Existing feature constrained construction occurs where existing physical features in the project vicinity cannot be readily altered during construction activities. In these types of constrained environments a location specific Construction Detail is required to be created to provide enough information to construct a PAS Manual compliant pedestrian connection. The Construction Plan must identify that a location specific Construction Detail was developed for the pedestrian connection and included in the plans. It is important to note that additional survey during the design phase may be required in order to accurately design these locations.

The location specific Construction Detail should identify all the proposed components of the pedestrian connection including but not limited to: landing/ turning space, ramp, flares, blended transition, transition segments and detectable warning system. The detail should identify all pertinent cross slopes, running slopes as well as associated lengths of the pedestrian connection components. The Construction Detail should also provide the limits of the depressed curb with elevations at the gutter pan which must match the elevations shown in the Grades and Geometrics plan.



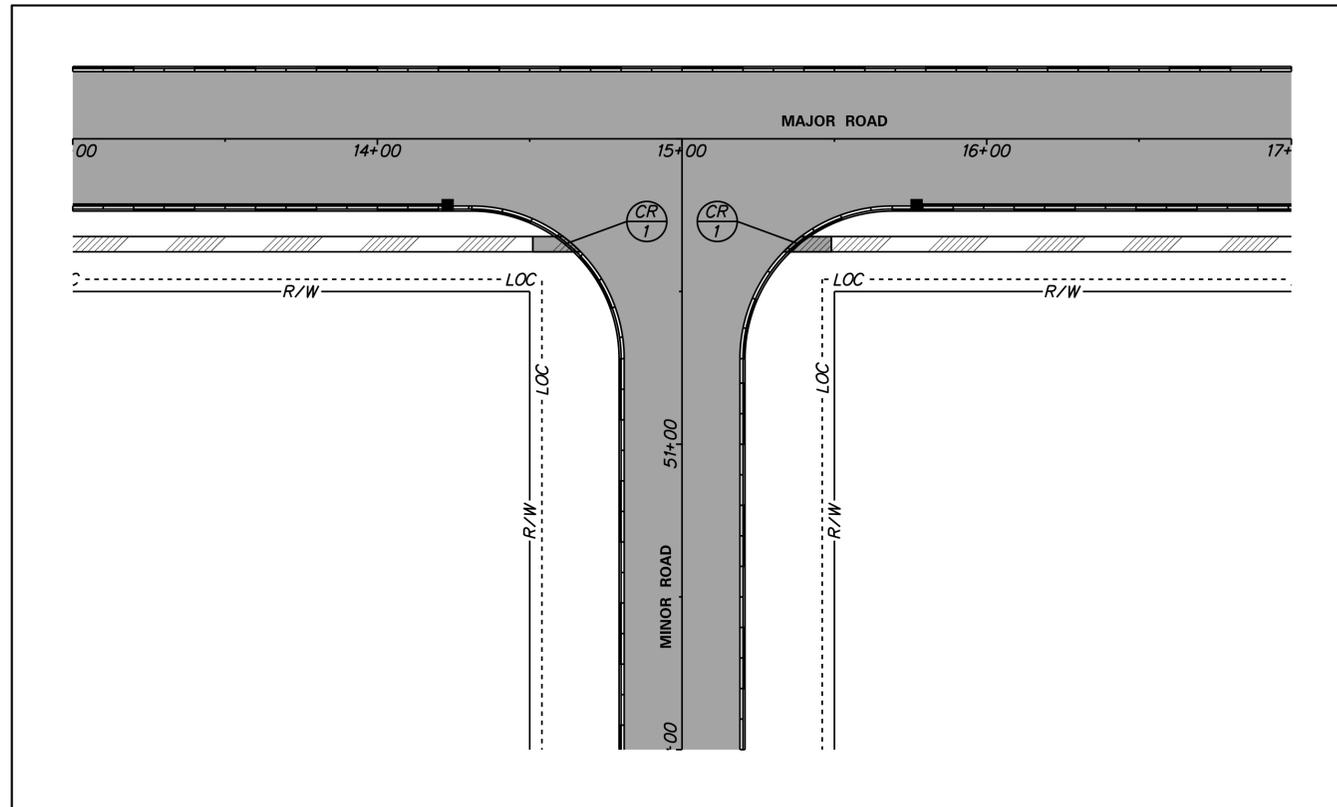
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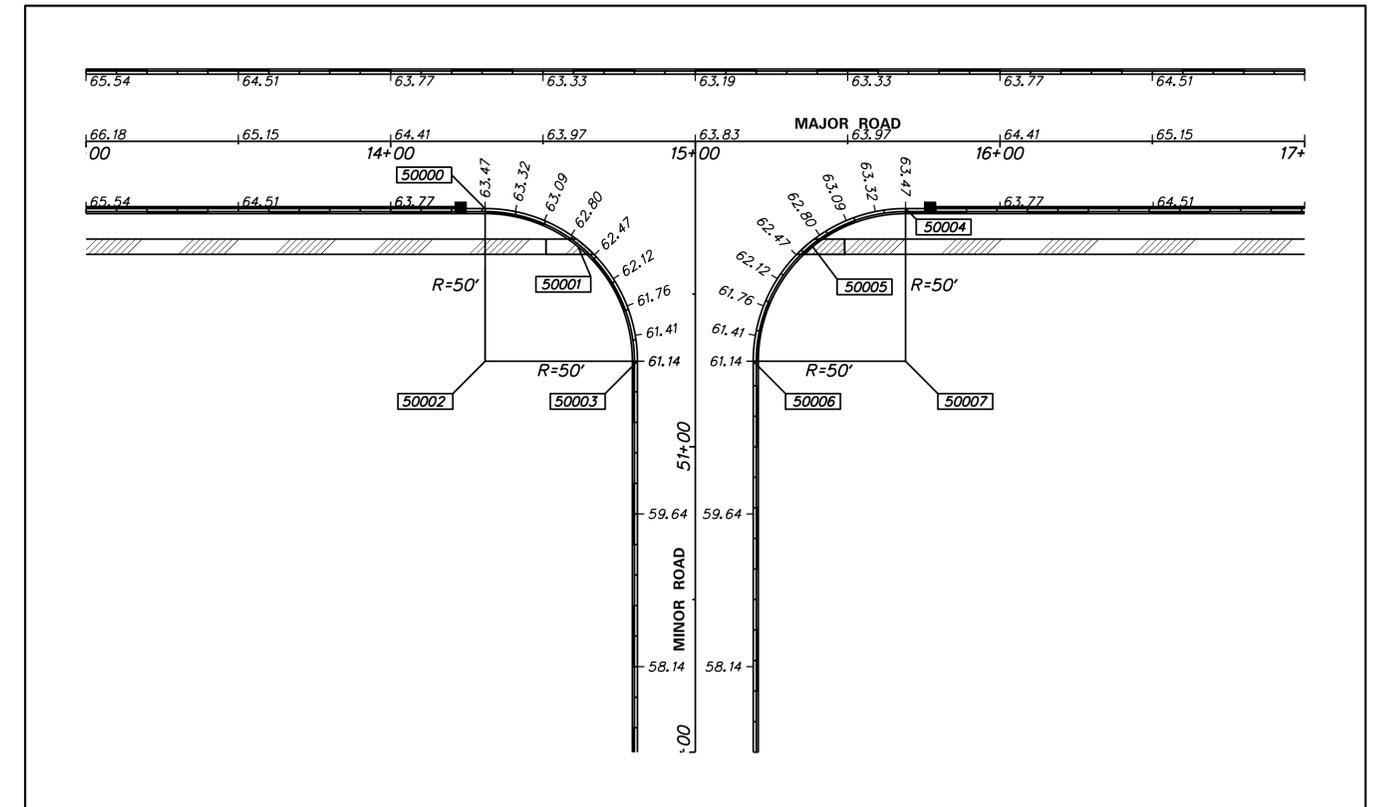
If a Request for a Practical Exception is required due to existing feature constraints, it is required that a note be added to the plans to state that a Request for a Practical Exception was created and available for both Construction and Inspection purposes. Depending on the program where the project is being generated and the deliverables that are created, where this information is documented will vary. Typically, it should be documented on the Construction Plan sheet as well as the Construction Detail sheet where the pedestrian facility design is shown. All approved Requests for a Practical Exceptions will be available for review by the appropriate Construction Management staff and ultimately provided to the Construction Management staff at the Project's Pre-Construction meeting.



CONSTRUCTION PLAN SHEET



GRADES AND GEOMETRICS PLAN SHEET

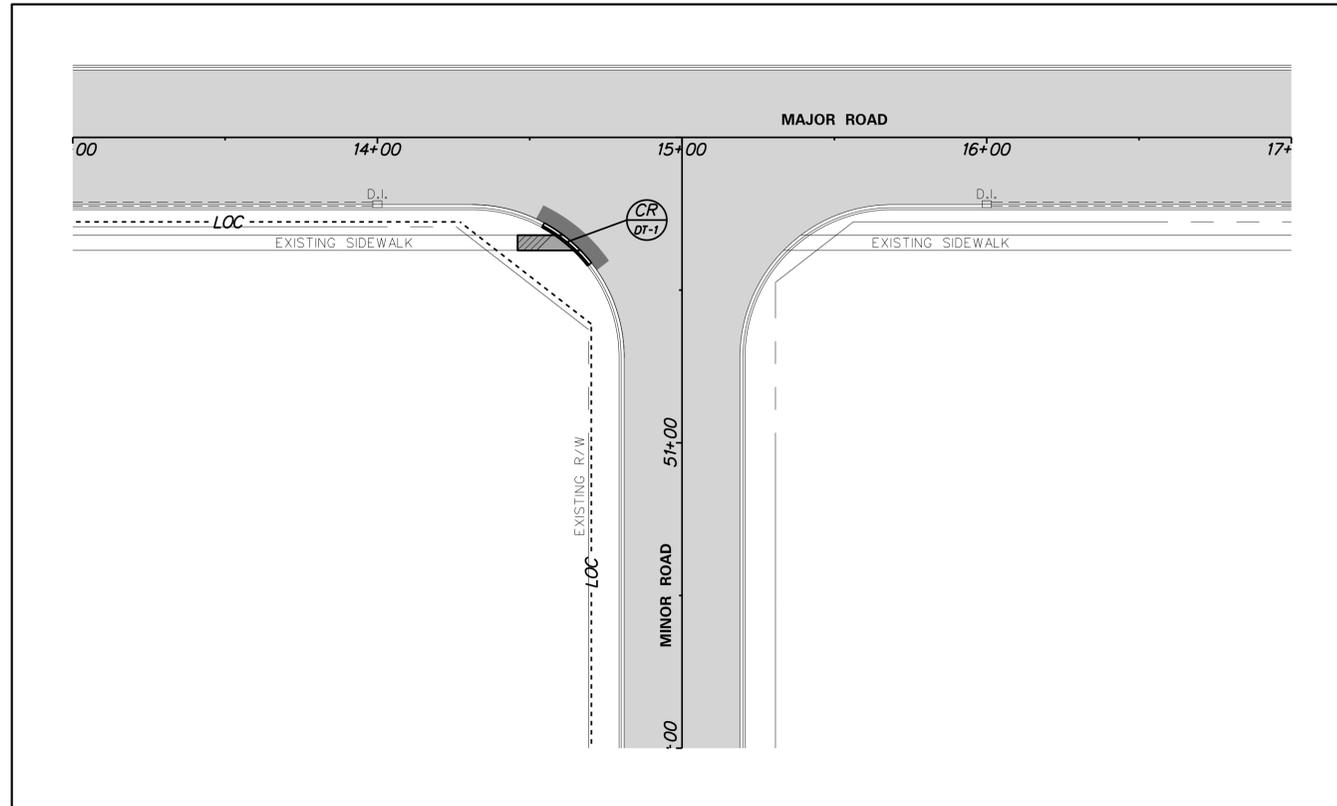


COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
50000	14+31.00	22.00	6513.9637	5611.2877
50001	14+61.50	34.50	6501.4637	5641.7902
50002	14+31.00	72.00	6463.9637	5611.2877
50003	14+81.00	72.00	6463.9637	5661.2877

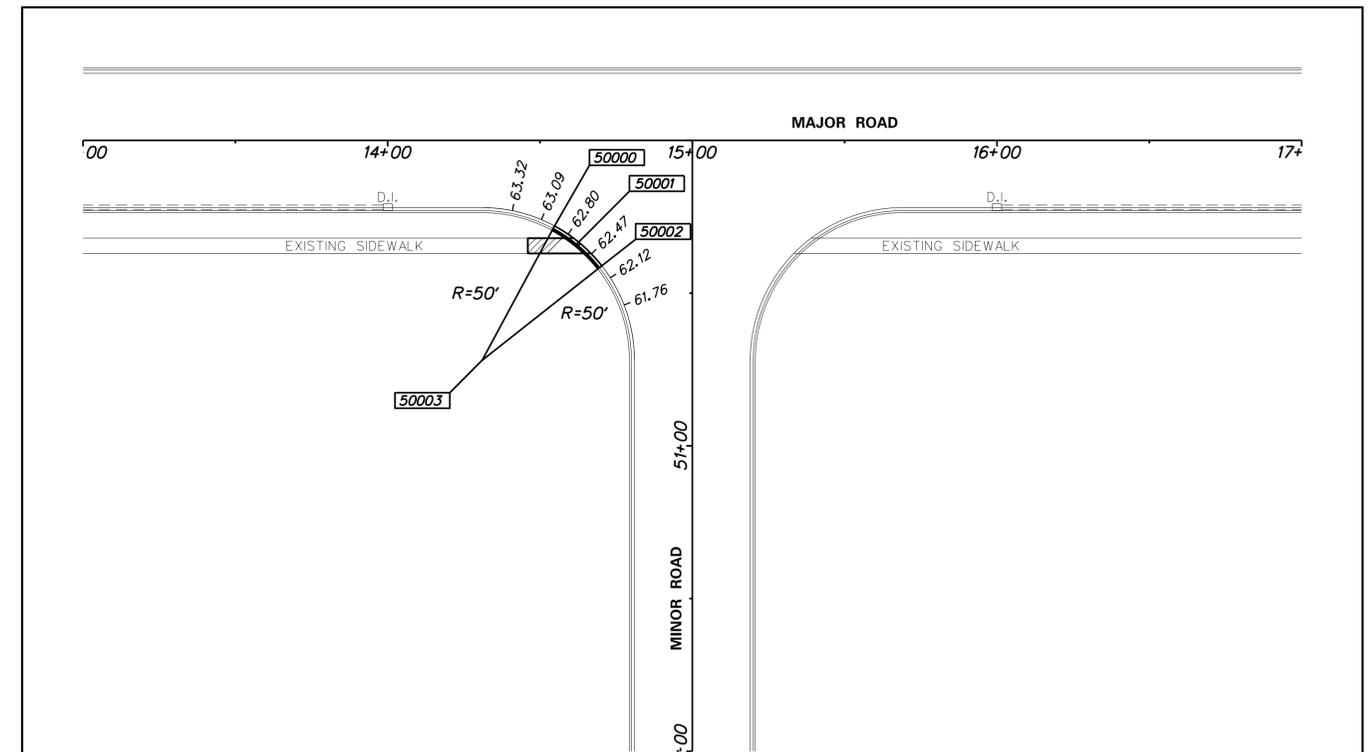
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POINT NO.	STATION	OFFSET	NORTHING	EASTING
50004	15+69.00	22.00	6513.9637	5749.2877
50005	15+38.50	34.50	6501.4637	5718.7923
50006	15+19.00	72.00	6463.9637	5699.2877
50007	15+69.00	72.00	6463.9637	5759.2877

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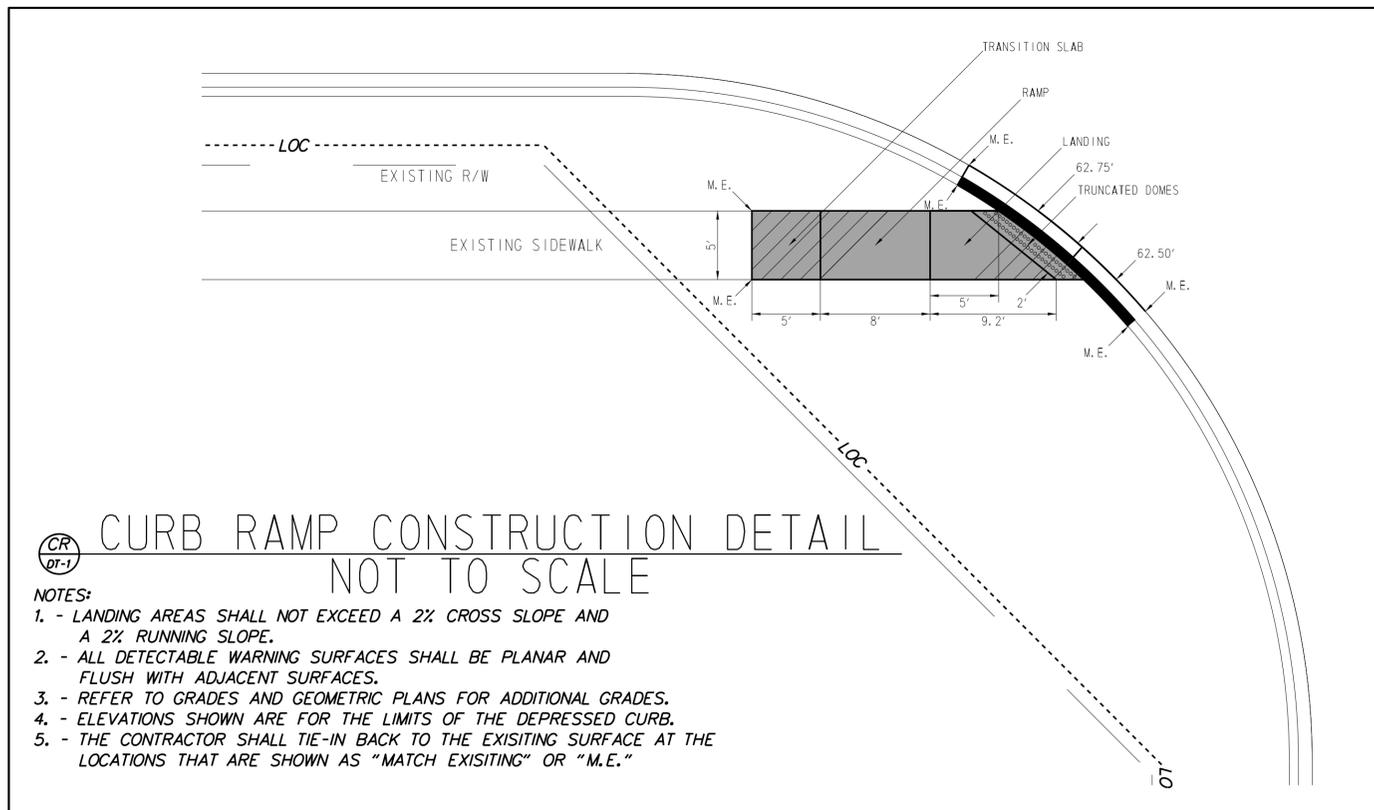
CONSTRUCTION PLAN SHEET



GRADES AND GEOMETRICS PLAN SHEET



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
50000	14+54.77	28.01	6507.9508	7135.0601
50001	14+61.50	34.50	6501.4637	7141.7902
50002	14+70.28	63.88	6494.9031	7150.5656
50003	14+31.00	72.00	6463.9637	7111.2877

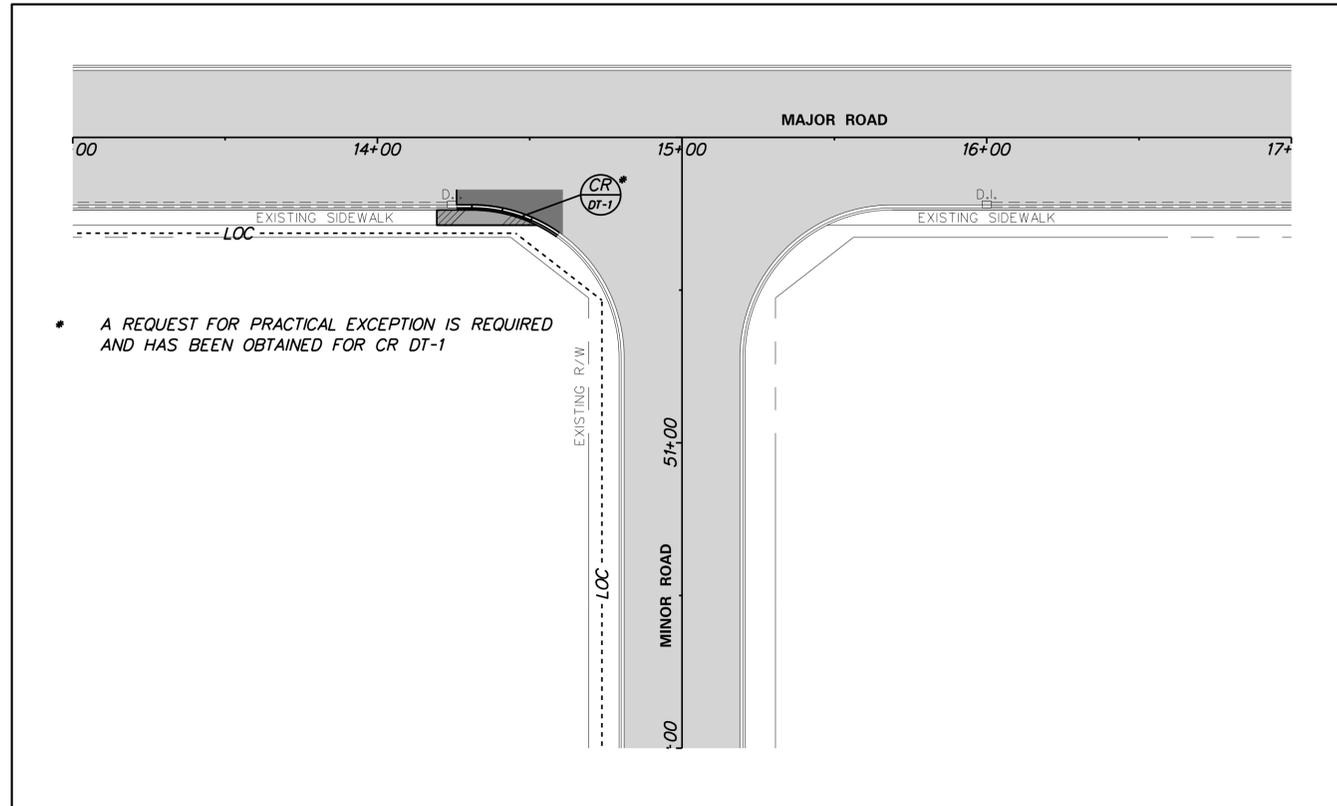


CR DT-1 CURB RAMP CONSTRUCTION DETAIL
NOT TO SCALE

- NOTES:
1. - LANDING AREAS SHALL NOT EXCEED A 2% CROSS SLOPE AND A 2% RUNNING SLOPE.
 2. - ALL DETECTABLE WARNING SURFACES SHALL BE PLANAR AND FLUSH WITH ADJACENT SURFACES.
 3. - REFER TO GRADES AND GEOMETRIC PLANS FOR ADDITIONAL GRADES.
 4. - ELEVATIONS SHOWN ARE FOR THE LIMITS OF THE DEPRESSED CURB.
 5. - THE CONTRACTOR SHALL TIE-IN BACK TO THE EXISTING SURFACE AT THE LOCATIONS THAT ARE SHOWN AS "MATCH EXISTING" OR "M.E."

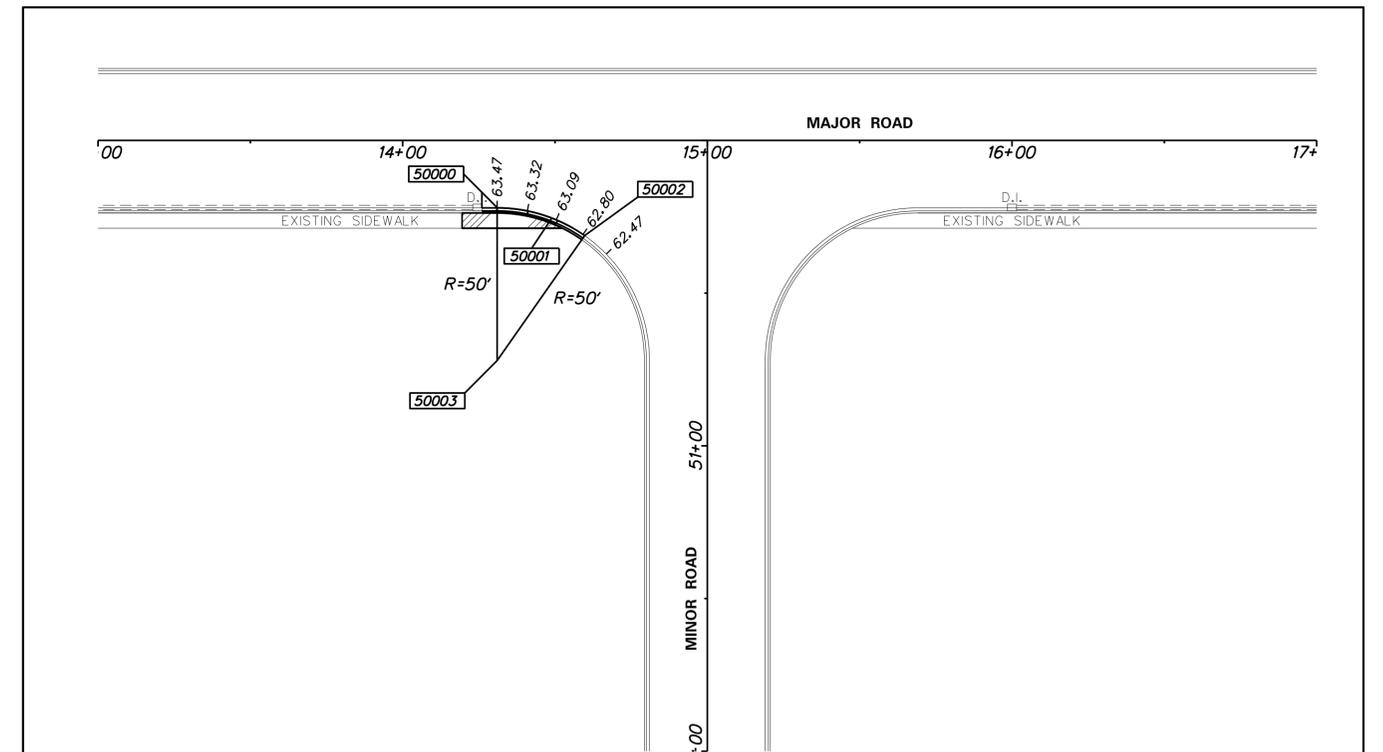
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CONSTRUCTION PLAN SHEET

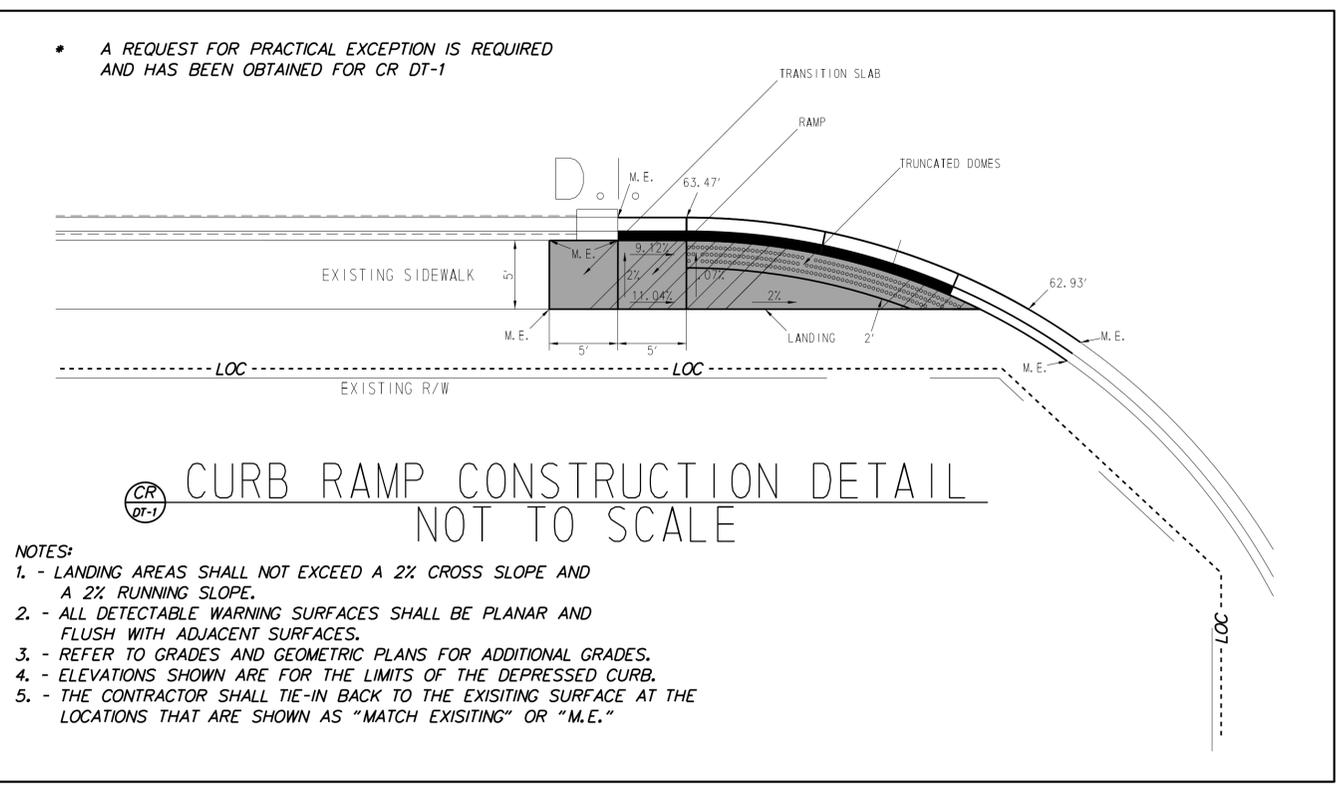


* A REQUEST FOR PRACTICAL EXCEPTION IS REQUIRED AND HAS BEEN OBTAINED FOR CR DT-1

GRADES AND GEOMETRICS PLAN SHEET



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
50000	14+31.00	22.00	6514.0565	8611.2876
50001	14+48.95	25.33	6510.6303	8629.2382
50002	14+59.73	31.08	6504.8842	8640.0194
50003	14+31.00	72.00	6463.9637	8611.2877



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