

	Unit	Northern Parkway (TT0600)			Source of Criteria	Updates since Last Approval (October 2019)
		Interim (Ultimate)	Intersecting Arterials	Side Streets		
General Parameters						
Roadway Classification*	(-)	AASHTO Urban Principal Arterial	(North) Peoria Principal Arterial (South) Glendale Principal Arterial	Augusta Avenue: Glendale Local Street Orangewood Avenue: Glendale Collector	Project Partners	
Terrain	(-)	rolling	level	level	Survey	Modified 1/16 per comments from Candidate Alternatives submittal
Average Project Elevation	(ft)	1080	1080	1080	Survey	
Proposed Design Speed	(mph)	60	55	Augusta Avenue: 30 Orangewood Avenue: 40	Project Partners	
Proposed Posted Speed	(mph)	40	45	Augusta Avenue: NA Orangewood Avenue:NA	Project Partners	Modified 7/24 per email with Lemka
Existing Posted Speed	(mph)	40	40	NA	Project Partners	Modified 7/24 per email with Lemka
Existing and Design year ADT	(vpd)	Varies 21389 to 32505 (existing), 55000 to 70000 (design year)	Varies 1889 to 6708 (existing), 4250 to 6750 (design year)	Augusta Avenue: 350 (design year) Orangewood Avenue: 2000 (design year)	Observation, MAG	
Typical Section	(-)	see plans	see plans	see plans	Project Partners	
Right-of-Way width	(ft)	Varies	Varies	Augusta Avenue: 50 Orangewood Avenue: 70	Project Partners	
Basic Number of Lanes	(-)	3	3	Augusta Avenue: 1 Orangewood Avenue: 2	Project Partners	
Roadway Width	(ft)	Varies 84'-146'	Varies	Augusta Avenue: 32' Orangewood Avenue: 48'	Project Partners	Added 5/14/21 per comments from Final Scoping Submittal
Median Width	(ft)	14	Varies	NA	Project Partners	
Shoulder Width (inside)	(ft)	NA	NA	NA	Project Partners	
Shoulder Width w/ Barrier (inside)	(ft)	8	NA	NA	Project Partners	
Lane Width	(ft)	12 Against Curb, 11 Inside	12 Against Curb, 11 Inside	Augusta Avenue: 16 Orangewood Avenue: 12	Project Partners	
Shoulder Width (outside)	(ft)	NA	6	NA	Project Partners	
Shoulder Width w/ Barrier (outside)	(ft)	NA	NA	NA	Project Partners	
Left Turn Lane Width	(ft)	11	11	NA	Project Partners	
Right Turn Lane Width (w/ curb)	(ft)	12	12	NA	Project Partners	
Bike Lane Width	(ft)	6	6	NA	MCDOT	Modified 7/6/20 per comments from Candidate Alternatives submittal
Intersection Radii	(ft)	35	35	30	Project Partners	
Normal Cross Slope	(%)	2	2	2	MCDOT	
Clear Zone Width	(ft)	AASHTO RDG Table	AASHTO RDG Table	AASHTO RDG Table	AASHTO	
Fill Slopes (Max behind Barrier)	(-)	3:1	3:1	3:1	MCDOT	
Fill Slopes (Desirable)	(-)	6:1	6:1	6:1	Project Partners	
Cut Slopes (Max)	(-)	3:1	3:1	3:1	MCDOT	
Cut Slopes (Max Desirable)	(-)	3:1	3:1	3:1	Project Partners	
Barrier runout information	(-)	NA	NA	NA	NA	Added 5/14/21 per comments from Final Scoping Submittal
Pavement Design Life	(yr)	20	20	20	MCDOT	Added 5/14/21 per comments from Final Scoping Submittal
Horizontal Alignment						
Max Super elevation	(%)	6	4	4	AASHTO	
Min Radius of Curvature for Super	(ft)	1330	1190	Augusta Avenue: 250 Orangewood Avenue: 533	AASHTO	Modified 8/18/20 updated min radius based on design speed and max super
Min Length of Horizontal Curve	(ft)	500 feet long for a central angle of 5 degrees or 10 times design speed			AASHTO	
Use Spirals Above Degree of Curve	(°)	NA	NA	NA	ADOT	
Super elevation Transitions	(-)	AASHTO table	AASHTO table	AASHTO table	AASHTO	
Limiting Value of f	(-)	0.12	0.13	Augusta Avenue: 0.2 Orangewood Avenue: 0.16	AASHTO	
Merging Tapers	(-)	DS:1	DS:1	DS:1	AASHTO	
Lane Add Tapers	(-)	25:1	25:1	25:1	Project Partners	
Shifting Tapers (1/2 of Merging Taper)	(-)	DS:1	DS:1	DS:1	MUTCD	
Maximum Horiz Deflection w/o Curve	(°)	1	1	1	Engineering Judgement	Added 5/14/21 per comments from Final Scoping Submittal

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Vertical Alignment						
Max Grade	(%)	3	5	12	Project Partners	
Min Grade (Special Cases)	(%)	0.15	0.15	0.15	MCDOT	
Min Grade (Desirable Minimum)	(%)	0.25	0.25	0.25	MCDOT	Modified 7/6/20 per comments from Candidate Alternatives submittal
Min Grade (Curbed)	(%)	0.4	0.4	0.4	Project Partners	
Max Grade Break	(%)	0.2	0.2	0.2	MCDOT	
Assumed Eye Height	(ft)	3.5	3.5	3.5	AASHTO	
Assumed Height of Object	(ft)	2.0	2.0	2.0	AASHTO	
Min Vertical Curve Length	(ft)	180	180	180	Project Partners	
Desirable Crest Vertical Curve Length	(ft)	AASHTO Exhibit 3-71 & 3-72	AASHTO Exhibit 3-71 & 3-72	AASHTO Exhibit 3-71 & 3-72	AASHTO	
Desirable Sag Vertical Curve Length	(ft)	AASHTO Exhibit 3-74 & 3-75	AASHTO Exhibit 3-74 & 3-75	AASHTO Exhibit 3-74 & 3-75	AASHTO	
Crest Vertical K-value	(-)	151	114	Augusta Avenue: 19 Orangewood Avenue: 44	AASHTO	
Sag Vertical K-value	(-)	136	115	Augusta Avenue: 37 Orangewood Avenue: 64	AASHTO	
Stopping Sight Distance	(-)	570	495	Augusta Avenue: 200 Orangewood Avenue: 305	AASHTO	
Intersection Design						
Intersection Sight Distance	(ft)	NA	NA	NA	NA	
Design Vehicle (DV)	(-)	SU-30 for U-turns WB-50 for all other movements	SU-30 for U-turns WB-50 for all other movements	SU-30 for U-turns WB-50 for all other movements	Project Partners	
Traffic Design						
Pavement Marking Requirements	(-)	Varies	Varies	MUTCD	Project Partners	Added 5/14/21 per comments from Final Scoping Submittal
Signing Requirements	(-)	Varies	Varies	MUTCD	Project Partners	Added 5/14/21 per comments from Final Scoping Submittal
Signal Requirements	(-)	Varies	Varies	NA	Project Partners	Added 5/14/21 per comments from Final Scoping Submittal
ITS Requirements	(-)	City of Peoria MAG Supplement	City of Peoria MAG Supplement	NA	Project Partners	Added 5/14/21 per comments from Final Scoping Submittal
Access Requirements (driveway & intersect)	(-)	As determined by Project Partners	As determined by Project Partners	As determined by Project Partners	Project Partners	Added 5/14/21 per comments from Final Scoping Submittal
Traffic Operations Requirements	(-)	LOS D	LOS D	LOS D	Project Partners	Added 5/14/21 per comments from Final Scoping Submittal
Structural Design						
Min Vertical Clearance at X-road	(ft)	16.5	16.5	16.5		
Min Vertical Clearance at R-road	(ft)	23.33	NA	NA		
Guardrail Height	(in)	31	31	31	MCDOT (Approved Materials List)	
31" End Terminals	(TL)	3	3	3	MCDOT (Approved Materials List)	
Aesthetics		Coordination with City of Peoria is anticipated to be required for the bridge aesthetics				
ITS Design						
Peoria Facilities	(-)	Supplement to MAG Uniform Standard Details			City of Peoria	
MCDOT Facilities	(-)	Supplement to MAG Uniform Standard Specifications & Details			MCDOT	
ADOT Facilities	(-)	ADOT ITS Design Guide			ADOT	

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Utility Design						
SRP Irrigation	(-)	Prior Right Determination still to be made by SRP/MCDOT/MCRED				
- Minimum Cover	(ft)	2 (Class V)/5 (Class III)	2 (Class V)/5 (Class III)	2 (Class V)/5 (Class III)	SRP Water	
- Lateral Clearance	(ft)	4' or Dependent on Prior Right Determination	4' or Dependent on Prior Right Determination	4' or Dependent on Prior Right Determination	SRP Water	
- Material	(-)	Class V RGRCP required under all roadways, Class III acceptable outside of Roadway/Driveway crossing prism			SRP Water	
Private Irrigation	(-)					
- Minimum Cover	(ft)	3 - To be located on adjacent private property and installed via Temporary Construction Easement				
- Lateral Clearance	(ft)	N/A - To be located on adjacent private property and installed via Temporary Construction Easement				
Well Sites	(-)					
- SRP Well	(-)	Project will be responsible for costs if relocation necessary. Relocation will have to occur within 660' of existing well to avoid new ADWR requirements. SRP will have to provide R/W and/or Easement needs if relocation necessary.			SRP Water	
- City of Peoria Well	(-)	Project will be responsible for costs if relocation necessary. Relocation will have to occur within 660' of existing well to avoid new ADWR requirements. City will have to provide R/W and/or Easement needs if relocation necessary.			City of Peoria	
SRP Power	(-)					
-KV12	(-)	Assumed not in by prior right, any relocations will have to be within the public R/W via utility permit.			SRP Power/MCDOT	
- 69 kV	(-)	Assumed in by prior right, MCDOT will likely have to acquire new easement/fee R/W for relocation. 30' aerial clearance required and 50' ground clearance around power poles.			SRP Power	
- 230 kV	(-)	Assumed in by prior right, MCDOT will likely have to acquire new easement/fee R/W for relocation. 30' aerial clearance required and 50' ground clearance around power poles.			SRP Power	
Kinder Morgan (El Paso Natural Gas)	(-)	Assumed to have a dedicated easement				
- Minimum Cover	(ft)	5	5	5	Kinder Morgan (EPNG)	
- Lateral Clearance	(ft)	6-10 (dependent on utility)	6-10 (dependent on utility)	6-10 (dependent on utility)	Kinder Morgan (EPNG)	
Water (Various Owners)	(-)					
- Minimum Cover	(ft)	4	4	4		
- Lateral Clearance	(ft)	6	6	6	MAG	
Sewer (Various Owners)	(-)					
- Minimum Cover	(ft)	5	5	5		
- Lateral Clearance	(ft)	6	6	6	MAG	
Storm Drain	(-)					
- Minimum Cover	(ft)	1.5	1.5	1.5	MCDOT	
- Lateral Clearance	(ft)	8 (from combustible pipe materials)	8 (from combustible pipe materials)	8 (from combustible pipe materials)	MCDOT	
- Minimum Trunk Line Diameter	(in)	18	18	18	MCDOT	
- Minimum Connector Pipe Diameter	(in)	15	15	15	MCDOT	
- Minimum Crossing Culvert Diameter	(in)	24	24	24	MCDOT	
Other Dry Utils	(-)	Includes: CenturyLink Comm, Cox (Comm & FO), City Peoria ITS and Signal Conduit, etc.				
- Minimum Cover	(ft)	3	3	3		
- Lateral Clearance	(ft)	??	??	??		
Drainage Design						
See Drainage Design Criteria document						
Transit Design						
Peoria Facilities	(-)	Bus Pullout and Shelter; 175' x 24'			City of Peoria	
Glendale Facilities	(-)	Match Peoria			City of Glendale	
Right-of-Way Design						
Acquisition Method	(-)	Acquire land as fee acquisition and convert easements to fee as appropriate			Project Partners	
Types	(-)	Utility, drainage, and temporary construction easements acceptable; Slope easements only permitted if appropriate for driveways			Project Partners	
Increments	(-)	Minimize right-of-way impact; no need to increment right-of-way offset to arbitrary interval or to have right-of-way breaks on even stations			Project Partners	
Geometry	(-)	Curves and non-parallel right-of-way lines are acceptable (priority should be to minimize right-of-way impacts)			Project Partners	
Cut/Fill Daylight Offset	(-)	2 to 3-foot offset from cut/fill daylight to proposed right-of-way			Project Partners	