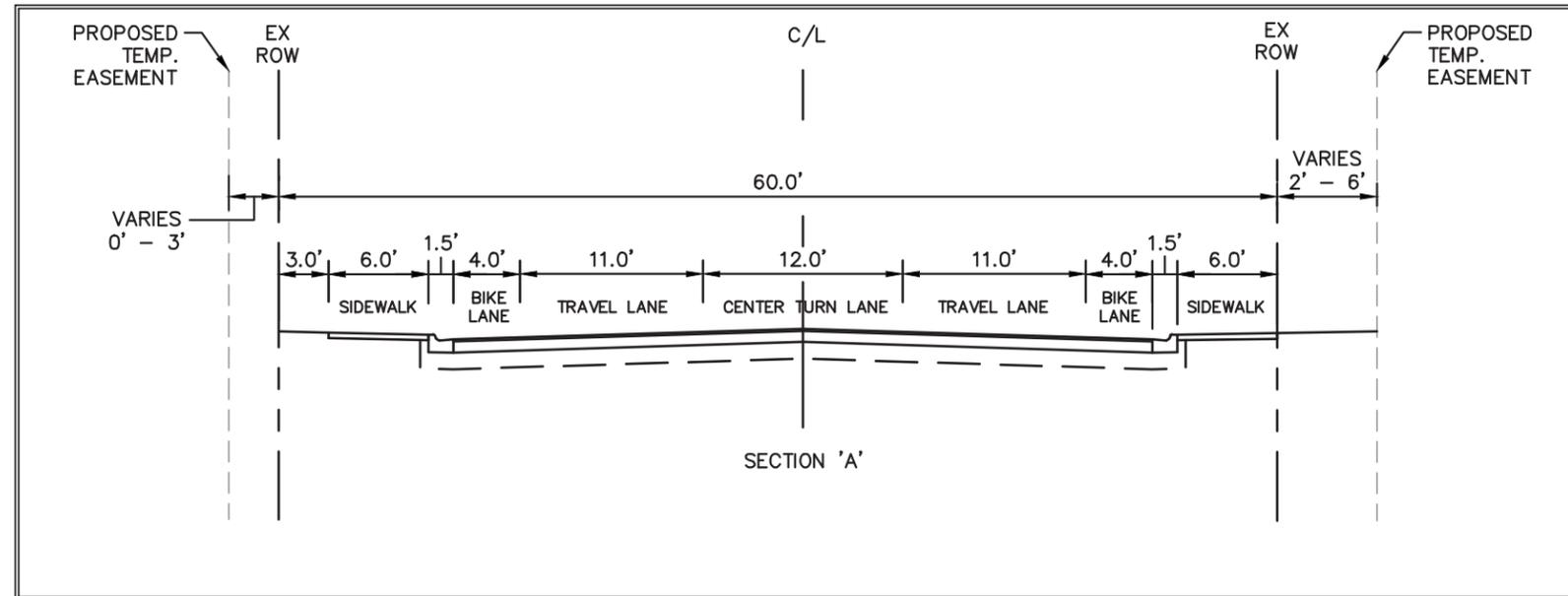




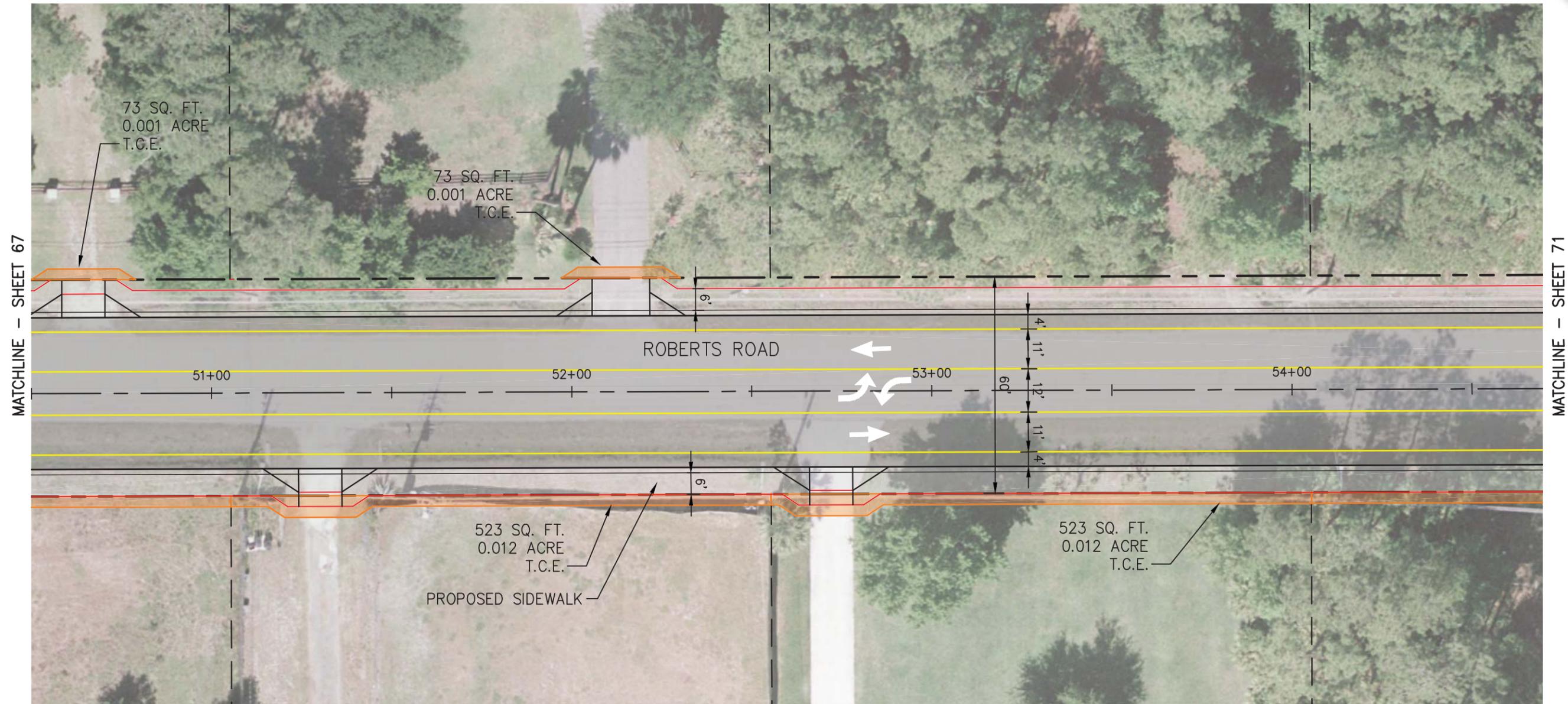
CONCEPT PLANS



Roberts Road Typical Section - Sheet 69

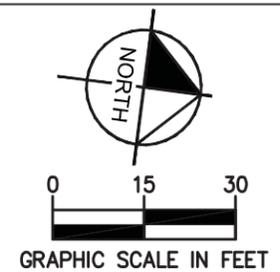
Pavement Design
Friction Course - 9.5 (1.5")
Type SP - 12.5 Structural Course (2")
10" Limerock Base Course
LBR 100/98% Maximum Density
Per AASHTO T-180
Primed Entire Width
12" Stabilized Subgrade
LBR 100/98% Maximum Density
Per AASHTO T-180

CONCEPT PLANS



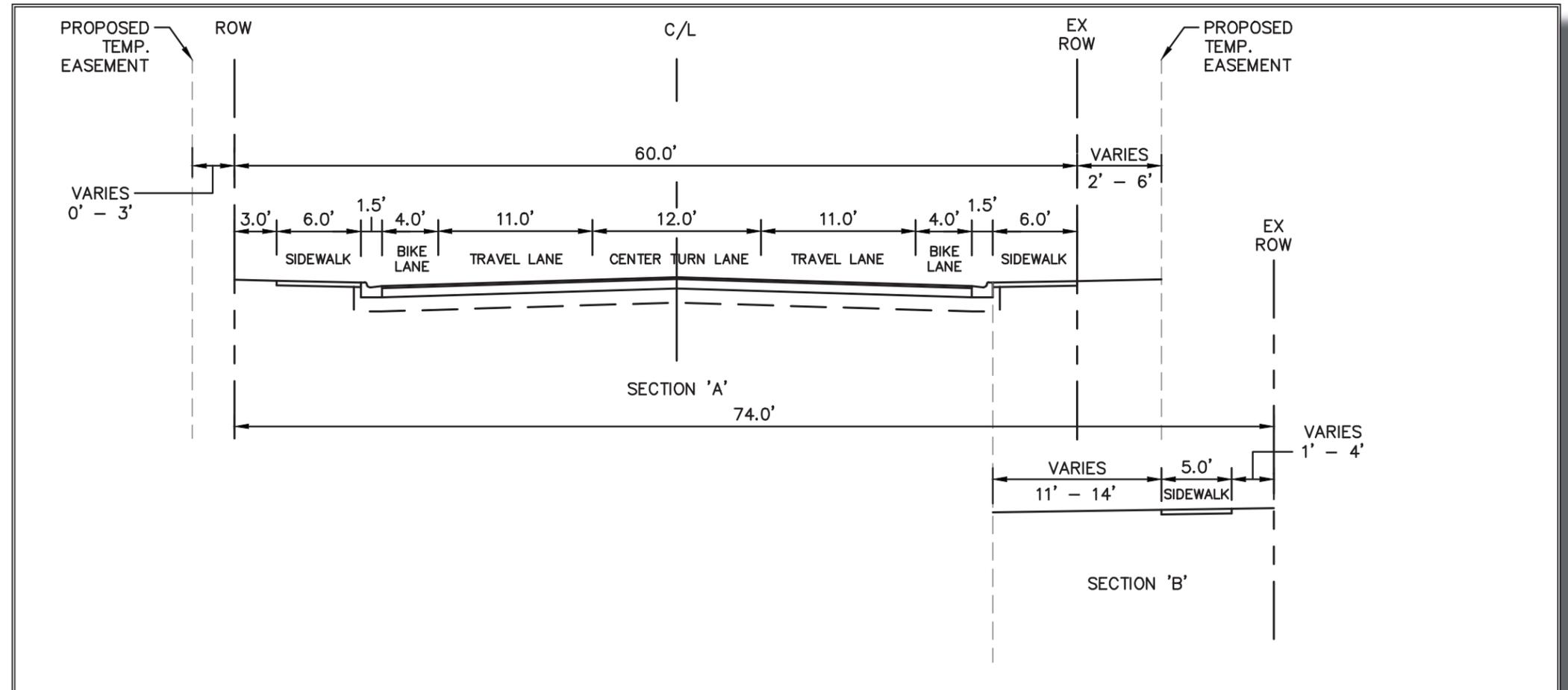
LEGEND

EXISTING RIGHT-OF-WAY:	PAVED SHOULDER:	RIGHT-OF-WAY ACQUISITION PARCEL:	CONCRETE SIDEWALK/DRIVEWAY:
EXISTING PROPERTY LINE:	GRASS SHOULDER:	TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):	STORM WATER CONVEYANCE/TREATMENT AREAS:
EXISTING EASEMENT:	TOP OF SWALE:	FLEXIBLE PAVEMENT:	POTENTIAL POND SITE:
PROPOSED RIGHT-OF-WAY:	BOTTOM OF SWALE:		
CENTERLINE:	SIDE DRAIN:		
PAVEMENT MARKING:	SIDEWALK:		
EDGE OF PAVEMENT:	MITERED END SECTION:		
CURB AND GUTTER:			





CONCEPT PLANS



Pavement Design

Friction Course - 9.5 (1.5")

Type SP - 12.5 Structural Course (2")

10" Limerock Base Course
LBR 100/98% Maximum Density
Per AASHTO T-180
Primed Entire Width

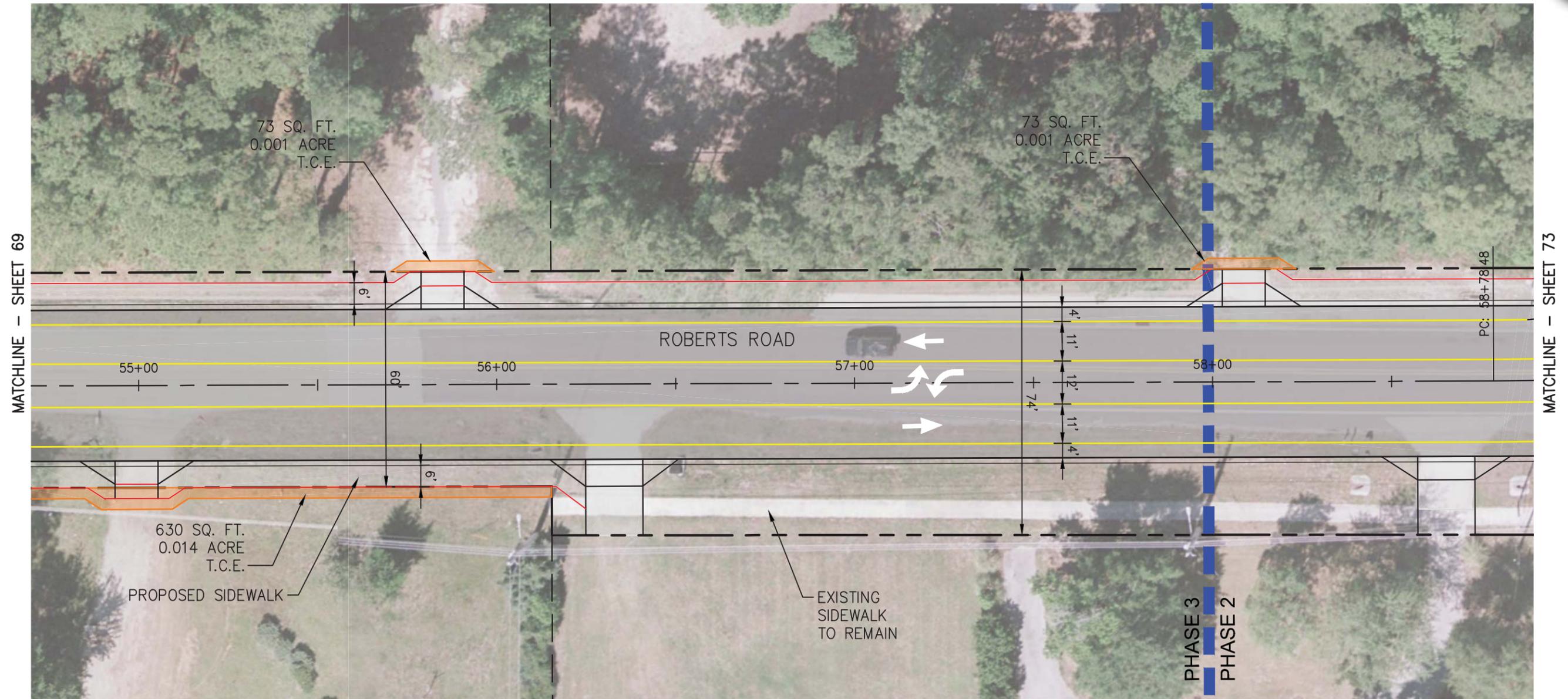
12" Stabilized Subgrade
LBR 100/98% Maximum Density
Per AASHTO T-180

Roberts Road Typical Section

Section 'A' - Begins at STA: 54+45

Section 'B' - Begins at STA: 56+10

CONCEPT PLANS



LEGEND

EXISTING RIGHT-OF-WAY:	PAVED SHOULDER:	RIGHT-OF-WAY ACQUISITION PARCEL:	CONCRETE SIDEWALK/DRIVEWAY:
EXISTING PROPERTY LINE:	GRASS SHOULDER:	TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):	STORM WATER CONVEYANCE/TREATMENT AREAS:
EXISTING EASEMENT:	TOP OF SWALE:	FLEXIBLE PAVEMENT:	POTENTIAL POND SITE:
PROPOSED RIGHT-OF-WAY:	BOTTOM OF SWALE:		
CENTERLINE:	SIDE DRAIN:		
PAVEMENT MARKING:	SIDEWALK:		
EDGE OF PAVEMENT:	MITERED END SECTION:		
CURB AND GUTTER:			



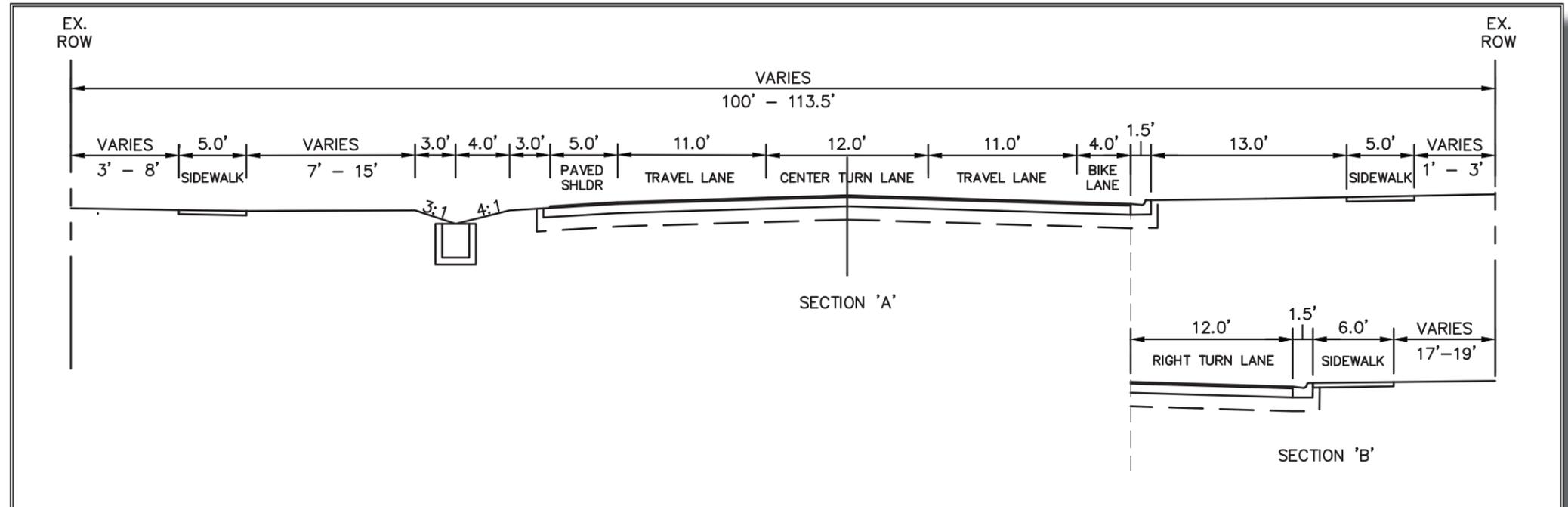
CONCEPT PLANS

Greenfield Drive

The intersection of Greenfield Drive at Roberts Road is a two-way, stop-controlled T-intersection with Greenfield Drive being the east leg to the intersection controlled by a stop sign and Roberts Road operating as free-flow. As summarized in Tables 6 and 7, the Greenfield Drive stop-controlled approach currently operates at LOS B during the AM and PM Peak Hours. As summarized in Tables 8 and 9, the intersection has no existing turn lanes yet is required to have a northbound right-turn lane and southbound left-turn lane. Since the proposed northbound right-turn lane will operate as uncontrolled, a storage length is not required and the total required length is therefore 155 feet to accommodate deceleration and taper. The proposed southbound left-turn lane is anticipated to require 25 feet of storage and 155 feet of deceleration and taper distance for a total turn lane length of 180 feet.

Needs:

- New 155-foot northbound right-turn lane
- New 180-foot southbound left-turn lane



Roberts Road Typical Section

Section 'A' - Begins at STA: 58+50

Section 'B' - Begins at STA: 60+75

Pavement Design

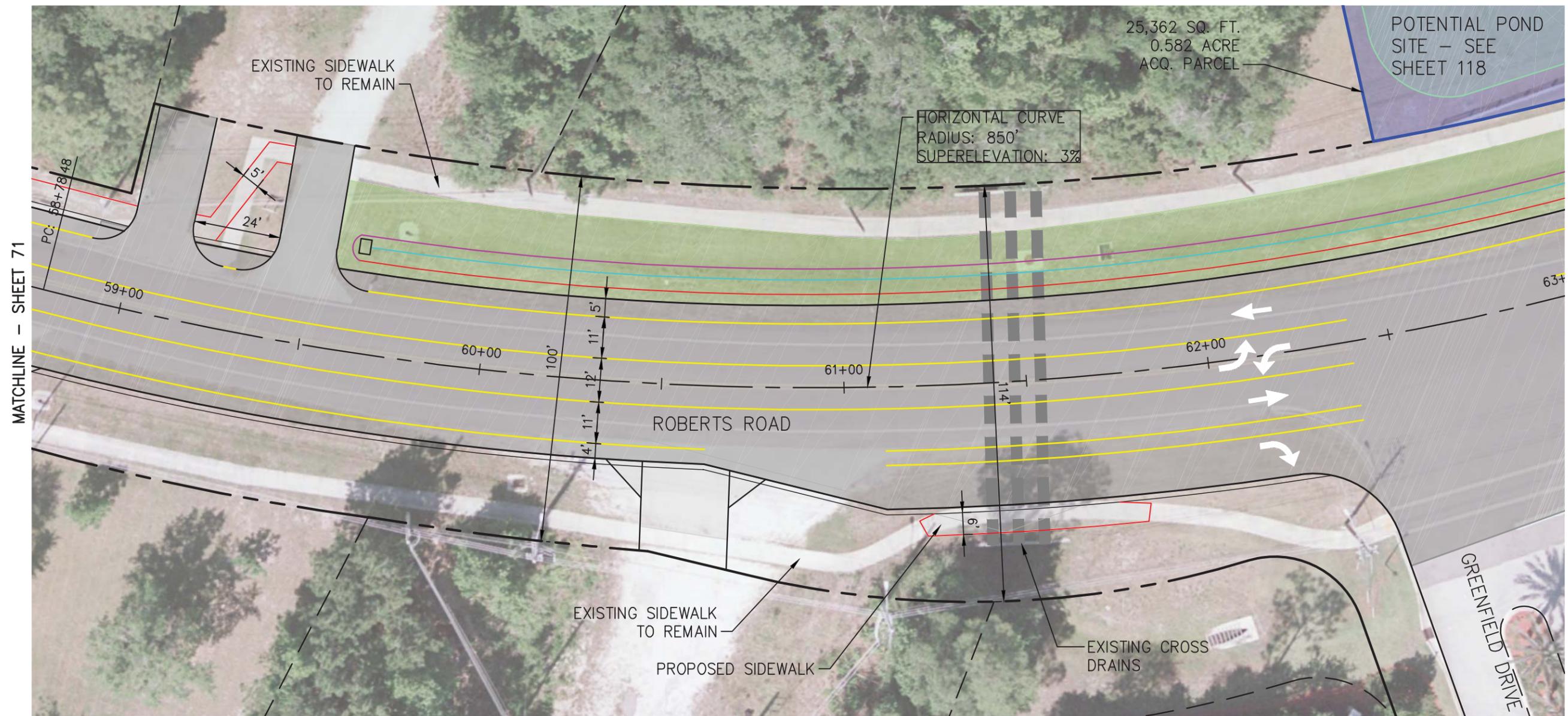
Friction Course - 9.5 (1.5")

Type SP - 12.5 Structural Course (2")

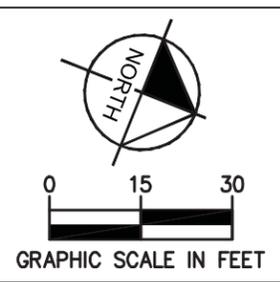
10" Limerock Base Course
 LBR 100/98% Maximum Density
 Per AASHTO T-180
 Primed Entire Width

12" Stabilized Subgrade
 LBR 100/98% Maximum Density
 Per AASHTO T-180

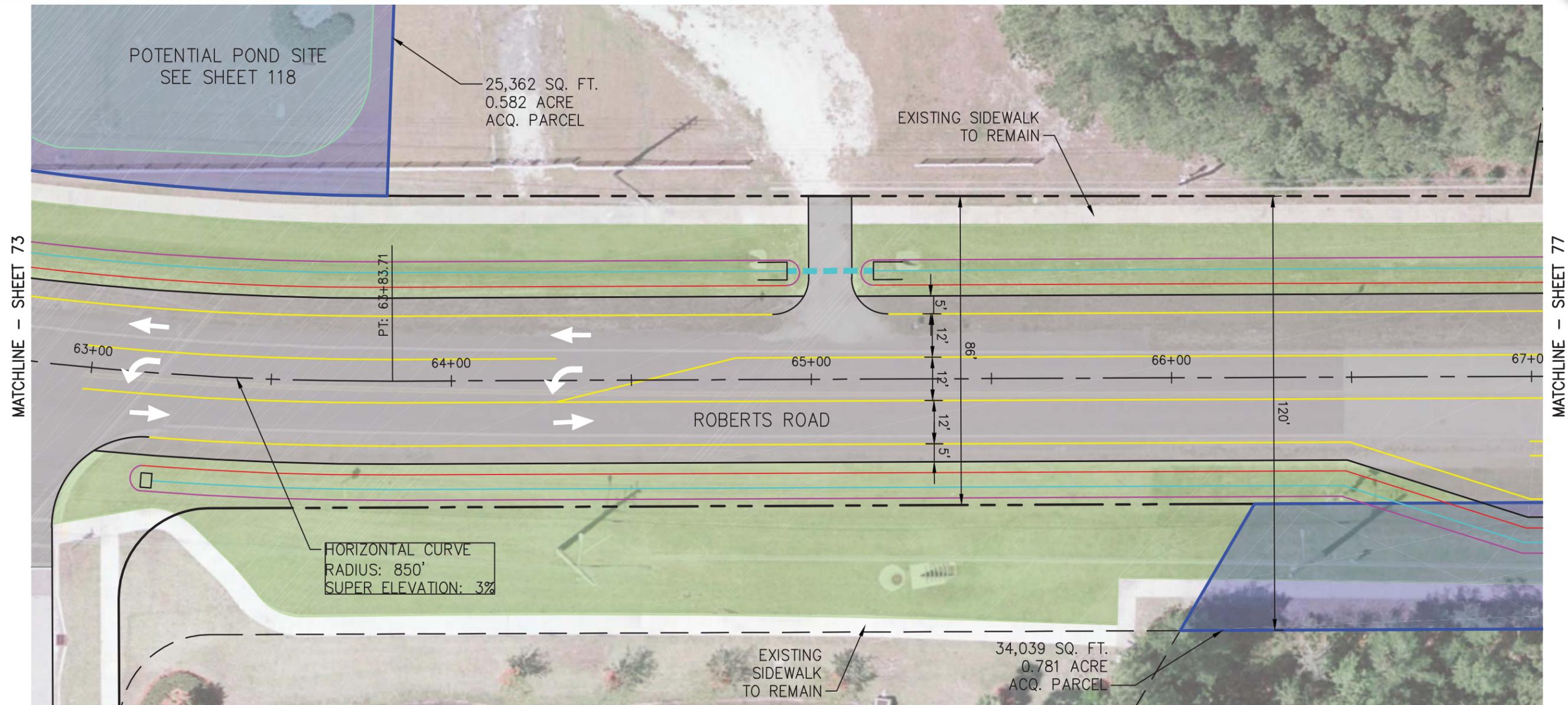
CONCEPT PLANS



LEGEND			
EXISTING RIGHT-OF-WAY:	---	PAVED SHOULDER:	—
EXISTING PROPERTY LINE:	- - - -	GRASS SHOULDER:	—
EXISTING EASEMENT:	- · - · -	TOP OF SWALE:	—
PROPOSED RIGHT-OF-WAY:	—	BOTTOM OF SWALE:	—
CENTERLINE:	- - - -	SIDE DRAIN:	—
PAVEMENT MARKING:	—	SIDEWALK:	—
EDGE OF PAVEMENT:	—	MITERED END SECTION:	□
CURB AND GUTTER:	—		
		RIGHT-OF-WAY ACQUISITION PARCEL:	■
		TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):	■
		FLEXIBLE PAVEMENT:	■
		CONCRETE SIDEWALK/DRIVEWAY:	■
		STORM WATER CONVEYANCE/TREATMENT AREAS:	■
		POTENTIAL POND SITE:	■



CONCEPT PLANS



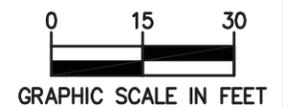
LEGEND

EXISTING RIGHT-OF-WAY:
 EXISTING PROPERTY LINE:
 EXISTING EASEMENT:
 PROPOSED RIGHT-OF-WAY:
 CENTERLINE:
 PAVEMENT MARKING:
 EDGE OF PAVEMENT:
 CURB AND GUTTER:

PAVED SHOULDER:
 GRASS SHOULDER:
 TOP OF SWALE:
 BOTTOM OF SWALE:
 SIDE DRAIN:
 SIDEWALK:
 MITERED END SECTION:

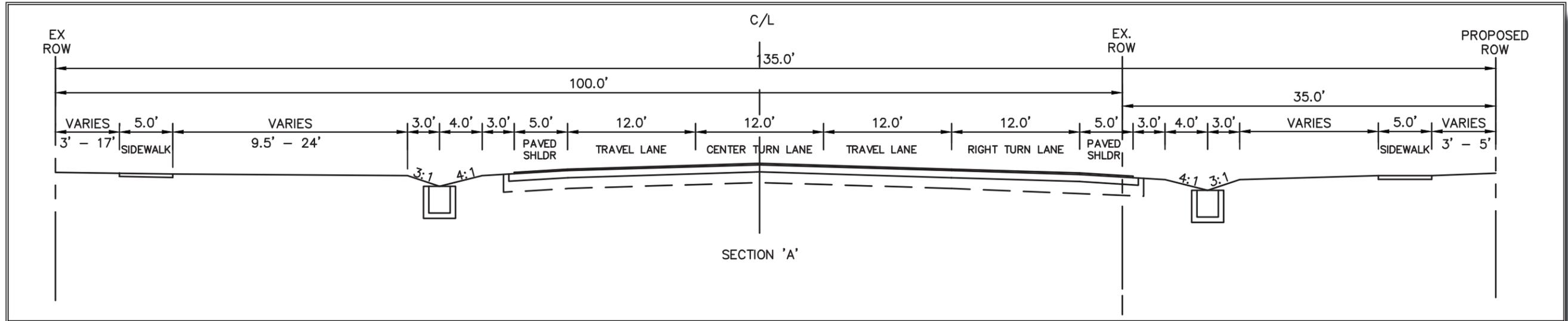
RIGHT-OF-WAY ACQUISITION PARCEL:
 TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):
 FLEXIBLE PAVEMENT:

CONCRETE SIDEWALK/DRIVEWAY:
 STORM WATER CONVEYANCE/TREATMENT AREAS:
 POTENTIAL POND SITE:





CONCEPT PLANS



Roberts Road Typical Section - Sheet 77

Cunningham Creek Elementary School Entrance

The intersection of Cunningham Creek Elementary School at Roberts Road is a two-way, stop-controlled T-intersection with the school driveway being the east leg to the intersection controlled by a stop sign and Roberts Road operating as free-flow. As summarized in Tables 6 and 7, the Cunningham Creek Elementary School stop-controlled approach currently operates at LOS F during the AM Peak Hour and LOS C during the PM Peak Hour. An exclusive left-turn lane is present in the southbound direction and an exclusive right-turn lane is present in the northbound direction. As summarized in Tables 8 and 9, the existing northbound right-turn lane length is sufficient to accommodate the existing traffic queues during peak hours but during the time of drop-off and pick-up as it was observed that additional turn lane lengths are needed. The southbound left-turn lane is anticipated to require 150 feet of storage and 155 feet of deceleration and taper distance for a total turn lane length of 305 feet. The existing turn lane is approximately 230 feet long and requires an additional 75 feet to accommodate the full storage, deceleration, and taper length. 250 feet has been provided to accommodate the higher storage volumes which occur at the time of pick-up.

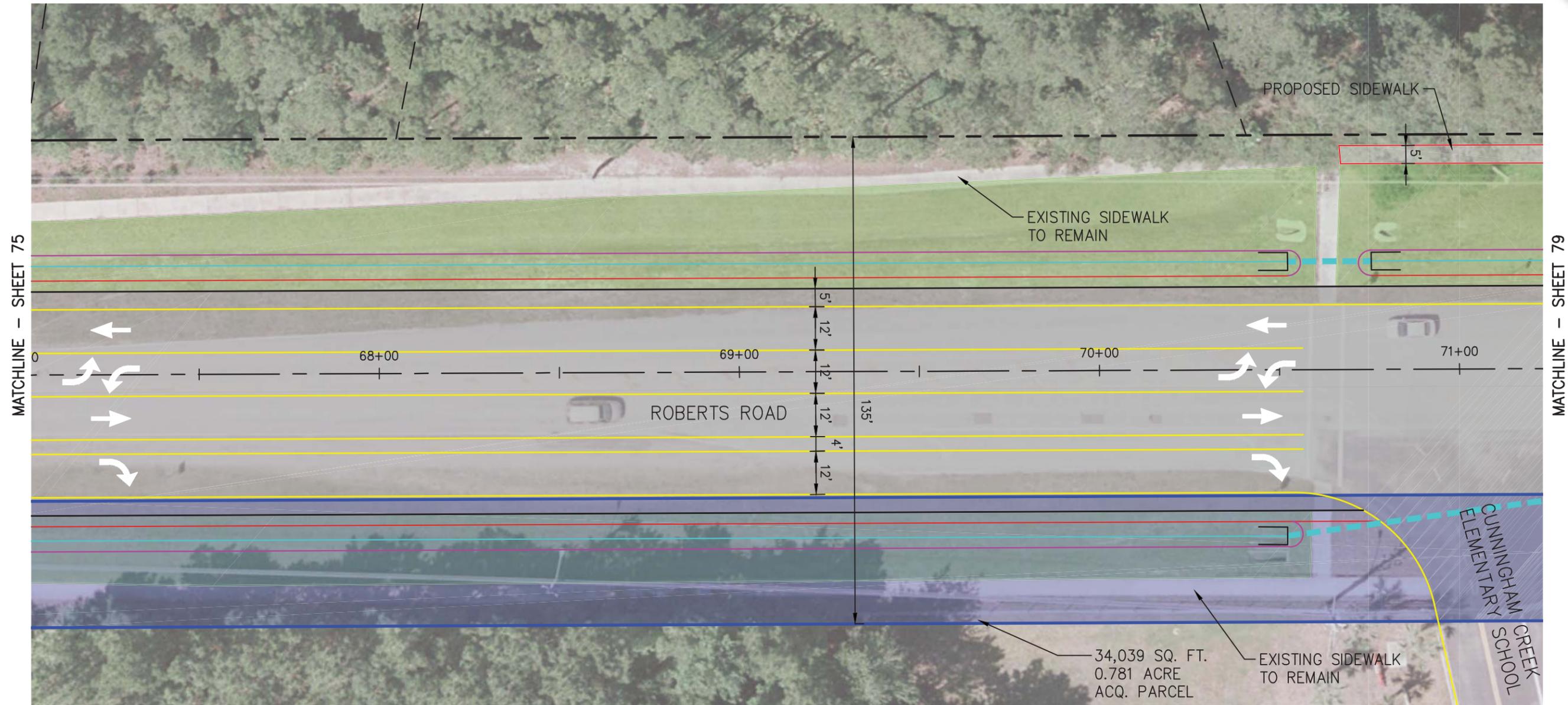
Needs:

- Additional 75 feet of storage for southbound left-turn lane
- Additional 250 feet of storage for northbound right-turn lane

Pavement Design
 Friction Course - 9.5 (1.5")
 Type SP - 12.5 Structural Course (2")
 10" Limerock Base Course
 LBR 100/98% Maximum Density
 Per AASHTO T-180
 Primed Entire Width
 12" Stabilized Subgrade
 LBR 100/98% Maximum Density
 Per AASHTO T-180

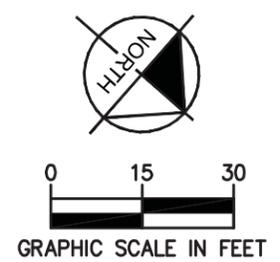


CONCEPT PLANS



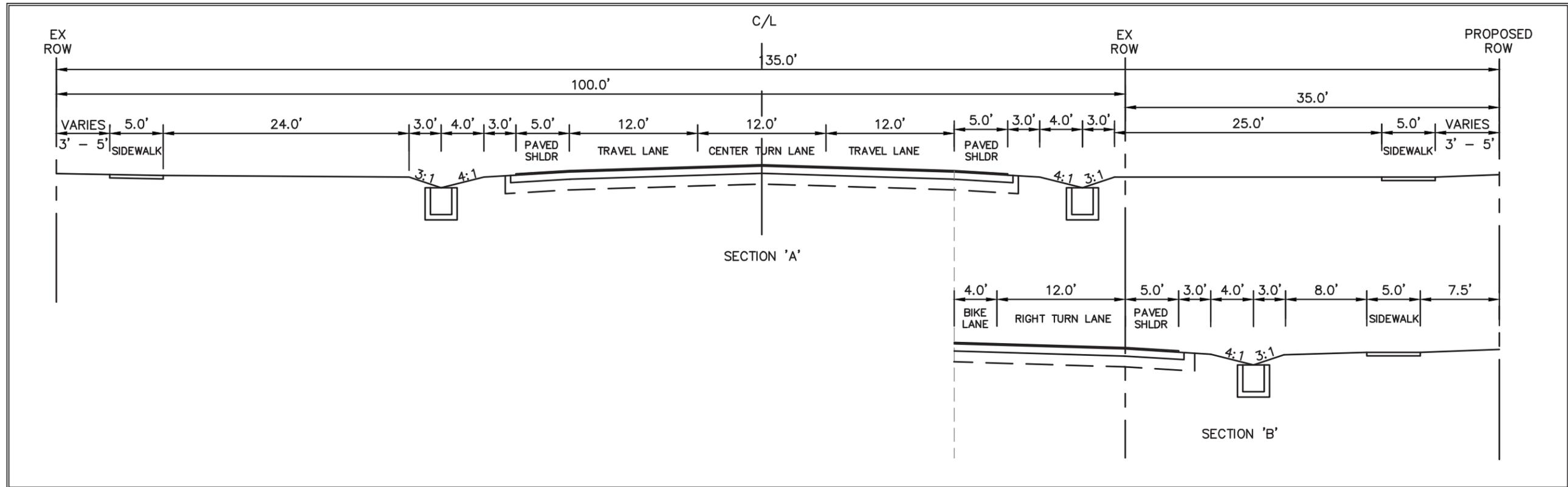
LEGEND

EXISTING RIGHT-OF-WAY:	PAVED SHOULDER:	RIGHT-OF-WAY ACQUISITION PARCEL:	CONCRETE SIDEWALK/DRIVEWAY:
EXISTING PROPERTY LINE:	GRASS SHOULDER:	TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):	STORM WATER CONVEYANCE/TREATMENT AREAS:
EXISTING EASEMENT:	TOP OF SWALE:	FLEXIBLE PAVEMENT:	POTENTIAL POND SITE:
PROPOSED RIGHT-OF-WAY:	BOTTOM OF SWALE:		
CENTERLINE:	SIDE DRAIN:		
PAVEMENT MARKING:	SIDEWALK:		
EDGE OF PAVEMENT:	MITERED END SECTION:		
CURB AND GUTTER:			





CONCEPT PLANS

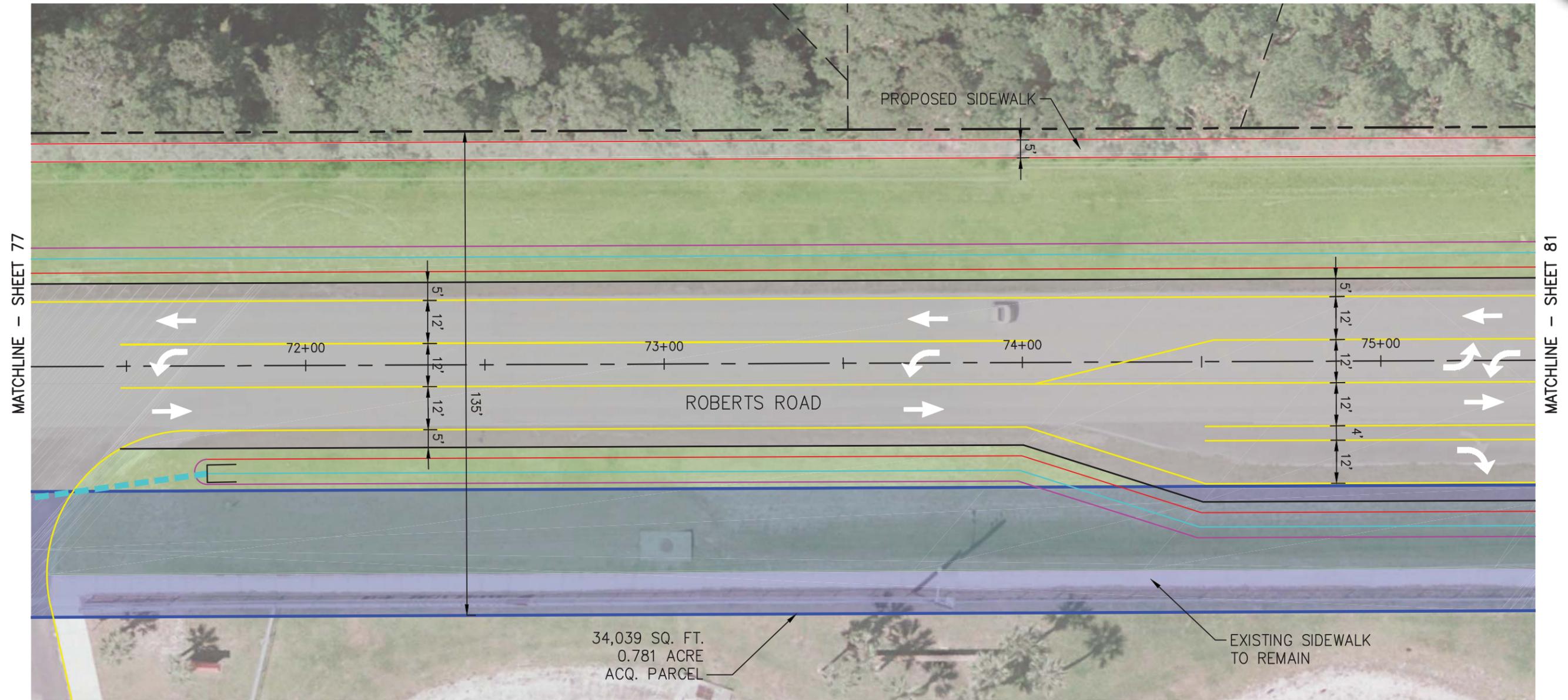


Roberts Road Typical Section

Section 'A' - Begin at STA: 71+20
 Section 'B' - Begins at STA: 74+00

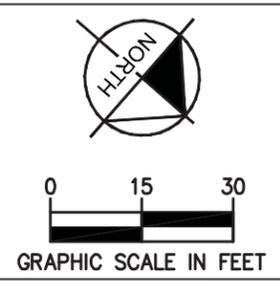
Pavement Design
 Friction Course - 9.5 (1.5")
 Type SP - 12.5 Structural Course (2")
 10" Limerock Base Course
 LBR 100/98% Maximum Density
 Per AASHTO T-180
 Primed Entire Width
 12" Stabilized Subgrade
 LBR 100/98% Maximum Density
 Per AASHTO T-180

CONCEPT PLANS



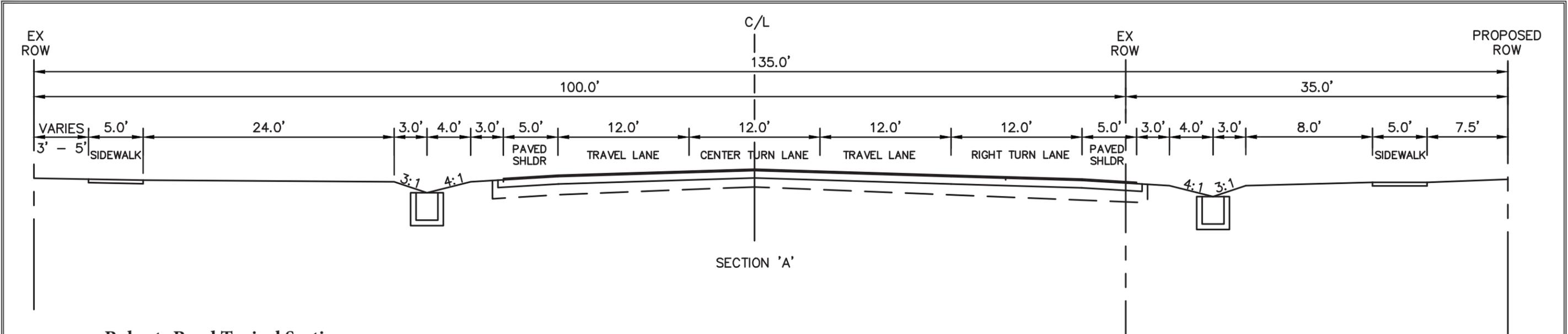
LEGEND

EXISTING RIGHT-OF-WAY:	PAVED SHOULDER:	RIGHT-OF-WAY ACQUISITION PARCEL:	CONCRETE SIDEWALK/DRIVEWAY:
EXISTING PROPERTY LINE:	GRASS SHOULDER:	TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):	STORM WATER CONVEYANCE/TREATMENT AREAS:
EXISTING EASEMENT:	TOP OF SWALE:	FLEXIBLE PAVEMENT:	POTENTIAL POND SITE:
PROPOSED RIGHT-OF-WAY:	BOTTOM OF SWALE:		
CENTERLINE:	SIDE DRAIN:		
PAVEMENT MARKING:	SIDEWALK:		
EDGE OF PAVEMENT:	MITERED END SECTION:		
CURB AND GUTTER:			





CONCEPT PLANS



Roberts Road Typical Section

Section 'A' - Begin at STA: 75+45
 Section 'B' - Begins at STA: 77+00

Pavement Design

Friction Course - 9.5 (1.5")

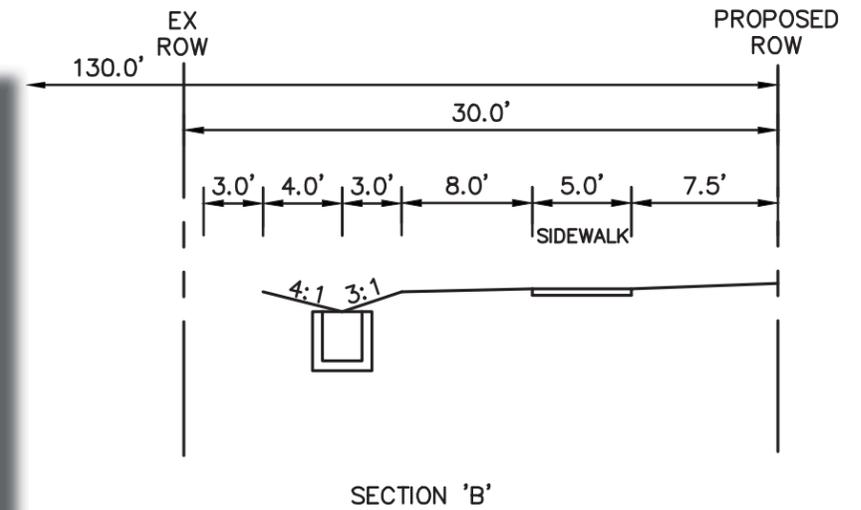
Type SP - 12.5 Structural Course (2")

10" Limerock Base Course
 LBR 100/98% Maximum Density
 Per AASHTO T-180
 Primed Entire Width

12" Stabilized Subgrade
 LBR 100/98% Maximum Density
 Per AASHTO T-180

Tiger Creek Parkway

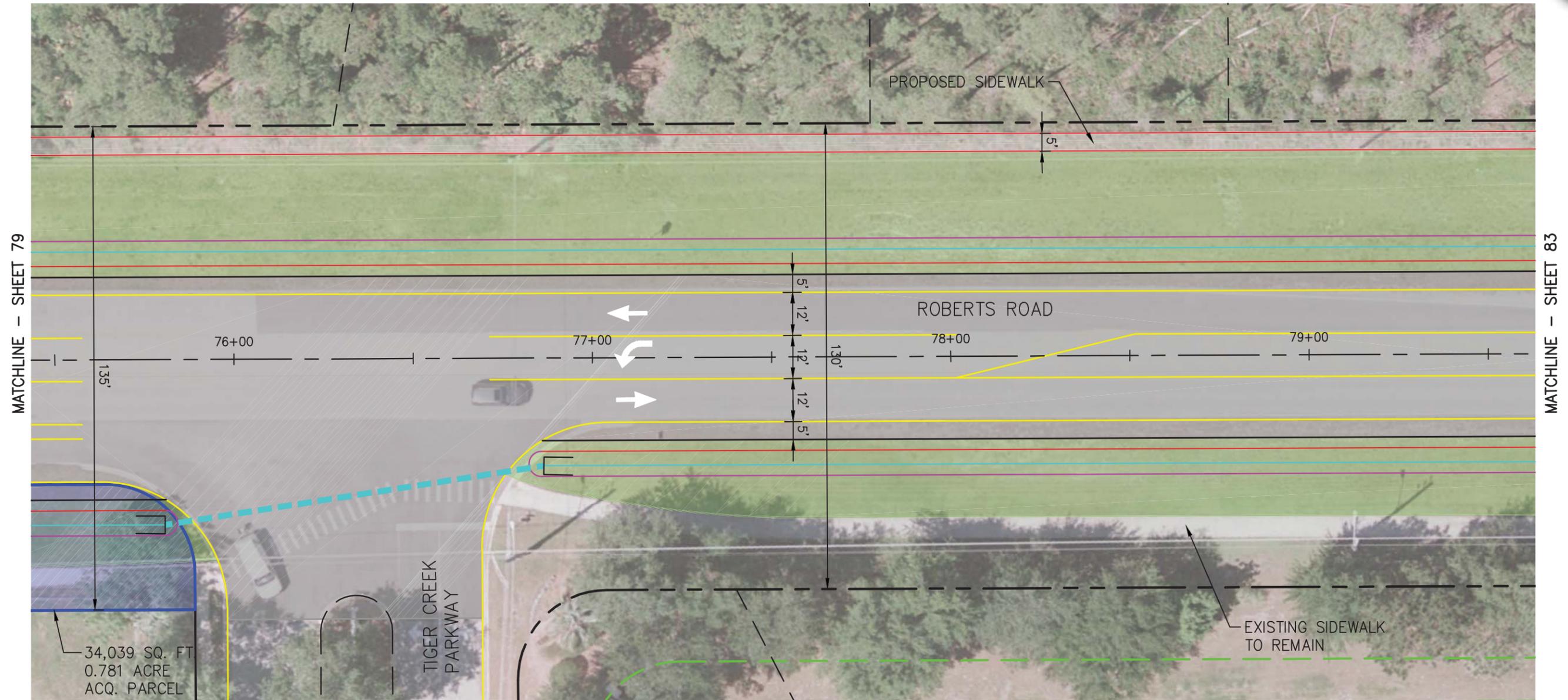
The intersection of Tiger Creek Parkway at Roberts Road is a two-way, stop-controlled T-intersection with Tiger Creek Parkway being the east leg to the intersection controlled by a stop sign and Roberts Road operating as free-flow. As summarized in Tables 6 and 7, the Tiger Creek Parkway stop-controlled approach currently operates at LOS D during the AM Peak Hour and LOS C during the PM Peak Hour. An exclusive left-turn lane is present in the southbound direction and an exclusive right-turn lane is present in the northbound direction. As summarized in Tables 8 and 9, the northbound right-turn lane operates as uncontrolled and no storage length is required. The total required length is therefore 155 feet to accommodate deceleration and taper. The existing right-turn lane is approximately 150 feet long and requires an additional 5 feet to accommodate the full deceleration and taper length. The southbound left-turn lane is anticipated to require 100 feet of storage and 155 feet of deceleration and taper distance for a total turn lane length of 255 feet. The existing left-turn lane is approximately 155 feet long and requires an additional 100 feet to accommodate the full storage, deceleration, and taper length.



Needs:

- Additional 5 feet of deceleration for northbound right-turn lane
- Additional 100 feet of storage for southbound left-turn lane

CONCEPT PLANS



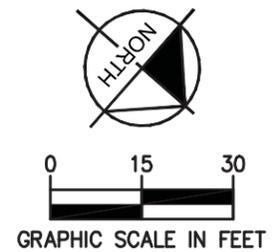
LEGEND

EXISTING RIGHT-OF-WAY:
 EXISTING PROPERTY LINE:
 EXISTING EASEMENT:
 PROPOSED RIGHT-OF-WAY:
 CENTERLINE:
 PAVEMENT MARKING:
 EDGE OF PAVEMENT:
 CURB AND GUTTER:

PAVED SHOULDER:
 GRASS SHOULDER:
 TOP OF SWALE:
 BOTTOM OF SWALE:
 SIDE DRAIN:
 SIDEWALK:
 MITERED END SECTION:

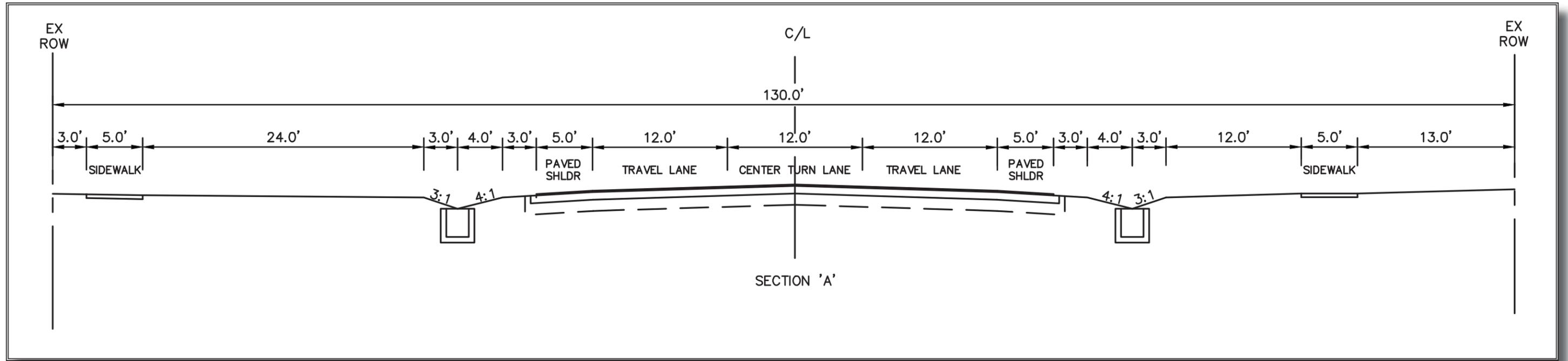
RIGHT-OF-WAY ACQUISITION PARCEL:
 TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):
 FLEXIBLE PAVEMENT:

CONCRETE SIDEWALK/DRIVEWAY:
 STORM WATER CONVEYANCE/TREATMENT AREAS:
 POTENTIAL POND SITE:





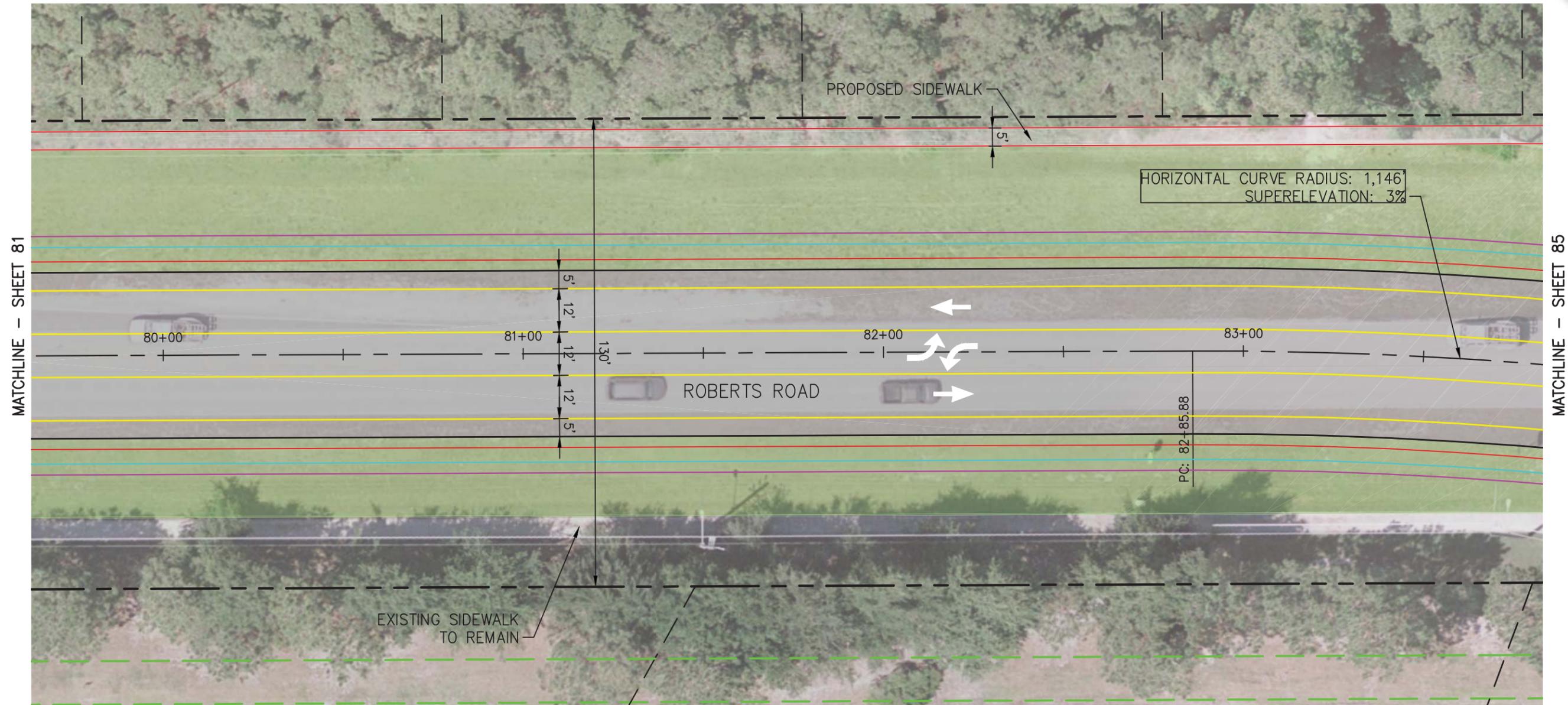
CONCEPT PLANS



Roberts Road Typical Section - Sheet 83

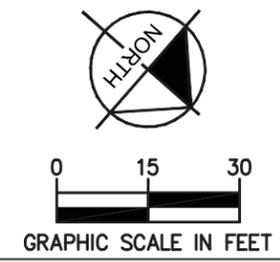
Pavement Design
Friction Course - 9.5 (1.5")
Type SP - 12.5 Structural Course (2")
10" Limerock Base Course
LBR 100/98% Maximum Density
Per AASHTO T-180
Primed Entire Width
12" Stabilized Subgrade
LBR 100/98% Maximum Density
Per AASHTO T-180

CONCEPT PLANS



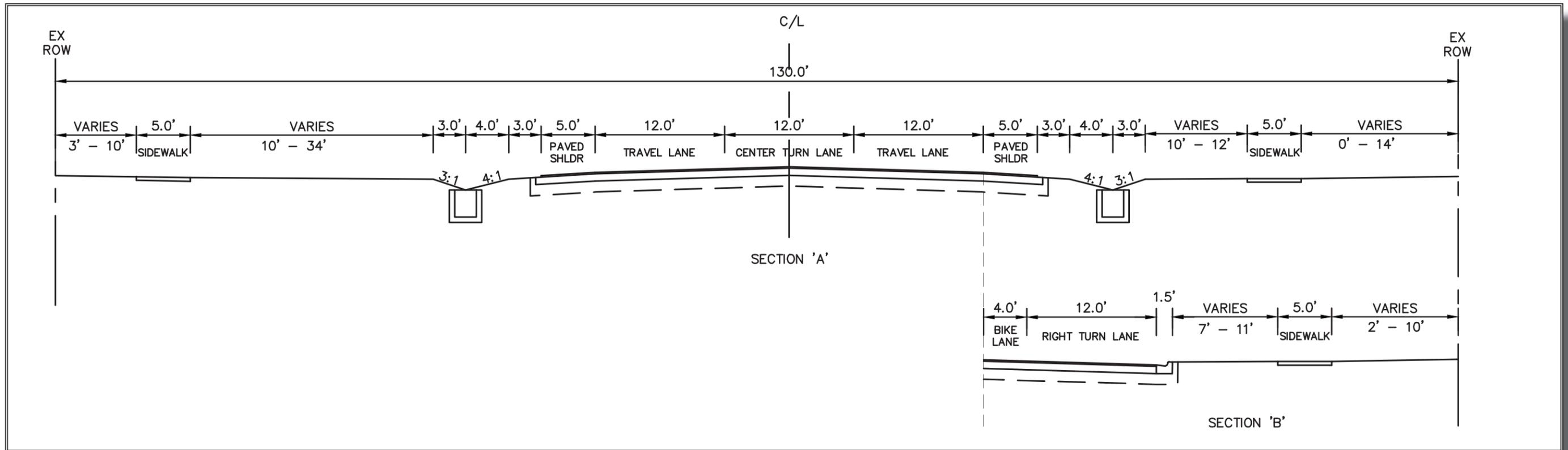
LEGEND

EXISTING RIGHT-OF-WAY:	PAVED SHOULDER:	RIGHT-OF-WAY ACQUISITION PARCEL:	CONCRETE SIDEWALK/DRIVEWAY:
EXISTING PROPERTY LINE:	GRASS SHOULDER:	TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):	STORM WATER CONVEYANCE/TREATMENT AREAS:
EXISTING EASEMENT:	TOP OF SWALE:	FLEXIBLE PAVEMENT:	POTENTIAL POND SITE:
PROPOSED RIGHT-OF-WAY:	BOTTOM OF SWALE:		
CENTERLINE:	SIDE DRAIN:		
PAVEMENT MARKING:	SIDEWALK:		
EDGE OF PAVEMENT:	MITERED END SECTION:		
CURB AND GUTTER:			





CONCEPT PLANS



Southcreek Dr./Village Green Ave.

The intersection of Southcreek Drive/Village Green Avenue at Roberts Road is a two-way, stop-controlled intersection with Village Green Avenue being the east leg to the intersection controlled by a stop sign, Southcreek Drive being the west leg to the intersection controlled by a stop sign, and Roberts Road operating as free-flow. This intersection was not counted and no operational analysis was performed. Exclusive left-turn and right-turn lanes are present in the northbound and southbound directions. As summarized in Tables 8 and 9, the existing northbound and southbound right-turn lane lengths are sufficient to accommodate the existing traffic queues. The northbound left-turn lane is anticipated to require 25 feet of storage and 155 feet of deceleration and taper distance for a total turn lane length of 180 feet. The existing northbound left-turn lane is approximately 150 feet long and requires an additional 30 feet to accommodate the full storage, deceleration, and taper length. The southbound left-turn lane is anticipated to require 50 feet of storage and 155 feet of deceleration and taper distance for a total turn lane length of 205 feet. The existing southbound left-turn lane is approximately 185 feet long and requires an additional 20 feet to accommodate the full storage, deceleration, and taper length.

Needs:

- Additional 30 feet of storage for northbound left-turn lane
- Additional 20 feet of storage for southbound left-turn lane

Roberts Road Typical Section

Section 'A' - Begins at STA: 83+50

Section 'B' - Begins at STA: 85+50

Pavement Design

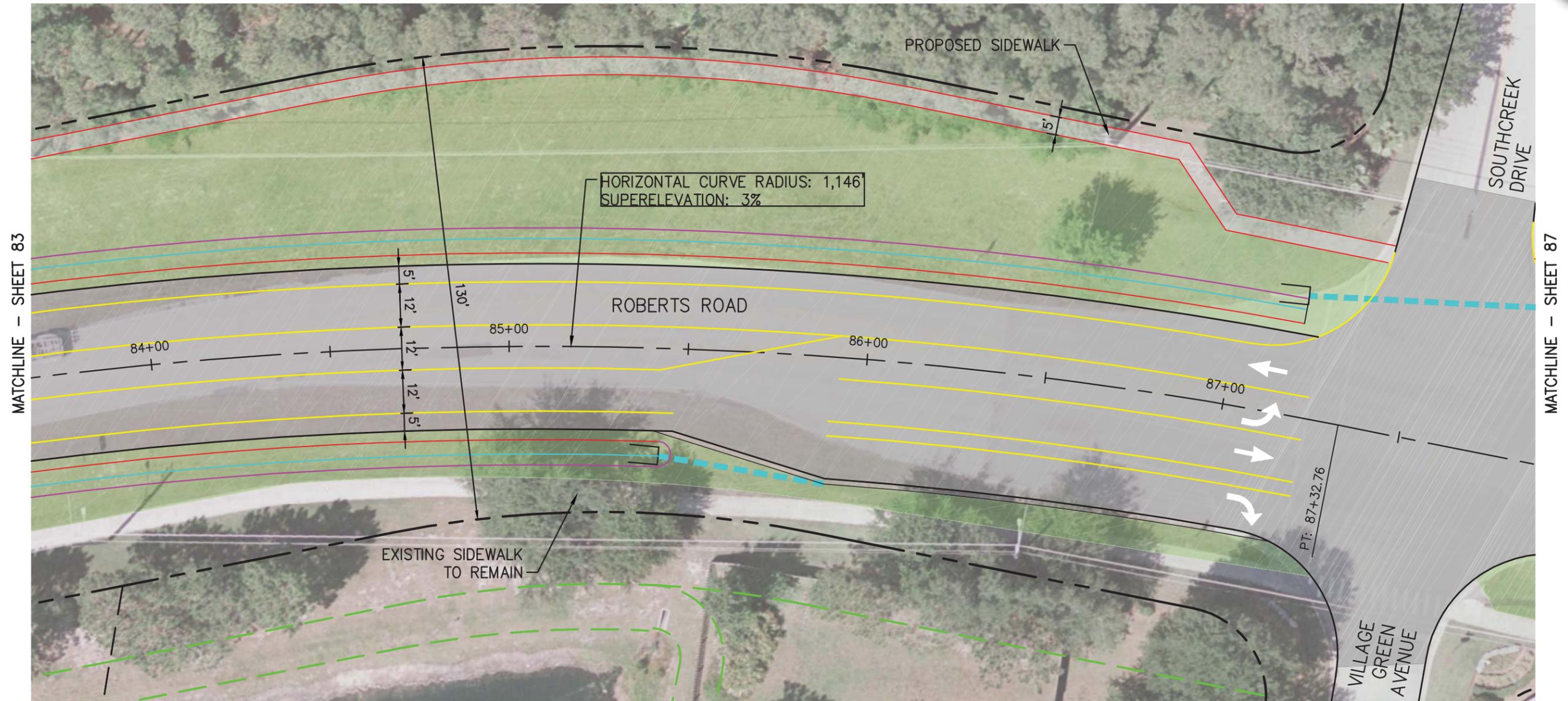
Friction Course - 9.5 (1.5")

Type SP - 12.5 Structural Course (2")

10" Limerock Base Course
LBR 100/98% Maximum Density
Per AASHTO T-180
Primed Entire Width

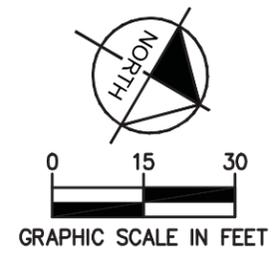
12" Stabilized Subgrade
LBR 100/98% Maximum Density
Per AASHTO T-180

CONCEPT PLANS



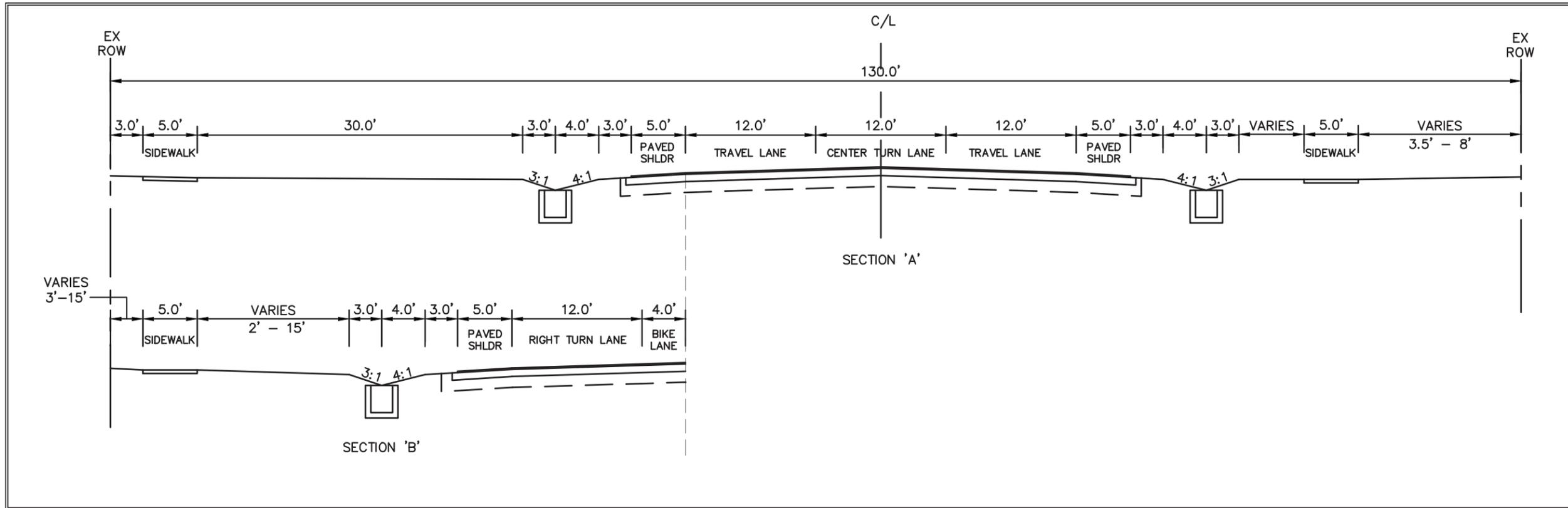
LEGEND

EXISTING RIGHT-OF-WAY:	PAVED SHOULDER:	RIGHT-OF-WAY ACQUISITION PARCEL:	CONCRETE SIDEWALK/DRIVEWAY:
EXISTING PROPERTY LINE:	GRASS SHOULDER:	TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):	STORM WATER CONVEYANCE/TREATMENT AREAS:
EXISTING EASEMENT:	TOP OF SWALE:	FLEXIBLE PAVEMENT:	POTENTIAL POND SITE:
PROPOSED RIGHT-OF-WAY:	BOTTOM OF SWALE:		
CENTERLINE:	SIDE DRAIN:		
PAVEMENT MARKING:	SIDEWALK:		
EDGE OF PAVEMENT:	MITERED END SECTION:		
CURB AND GUTTER:			





CONCEPT PLANS



Roberts Road Typical Section

Section 'A' - Begins at STA: 89+75
 Section 'B' - From STA: 88+00 To STA: 89+75

Pavement Design

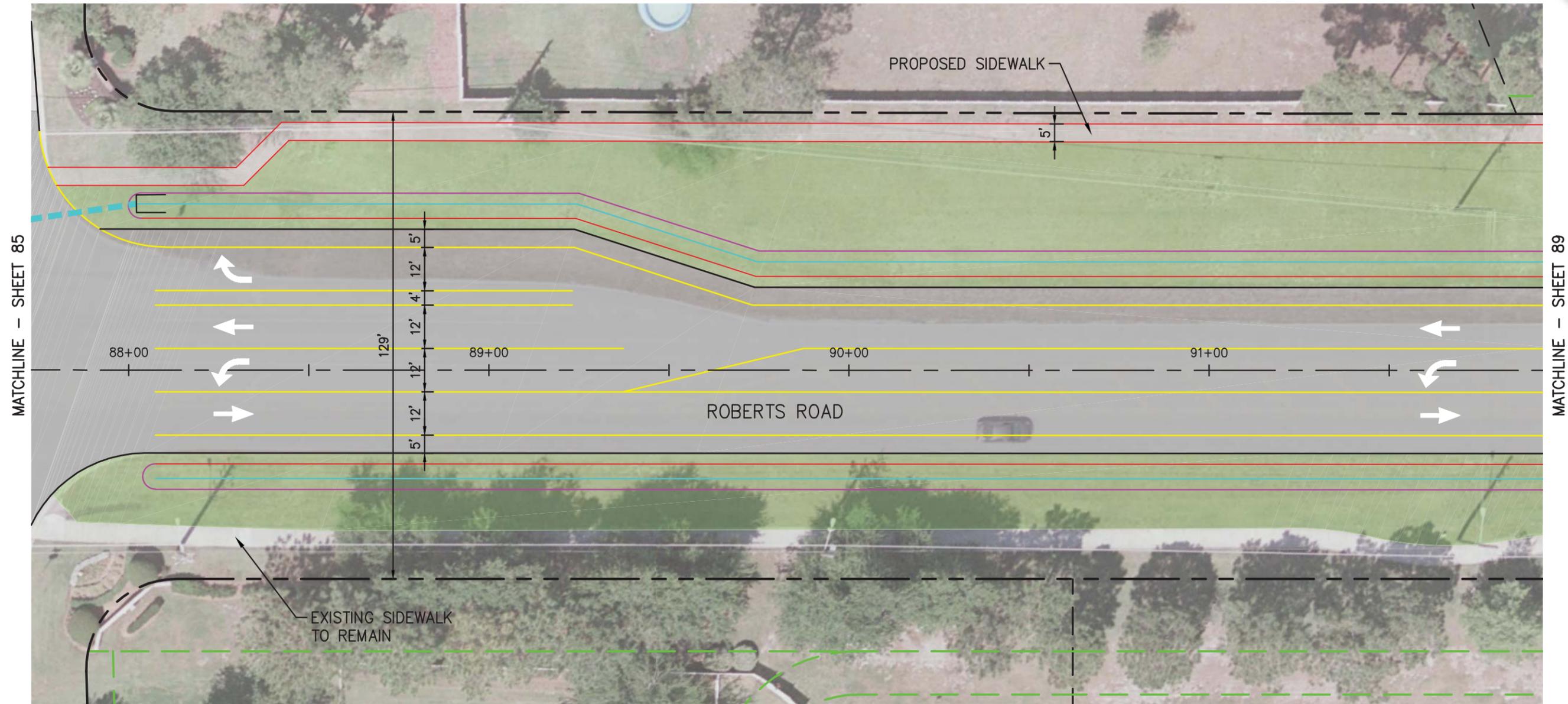
Friction Course - 9.5 (1.5")

Type SP - 12.5 Structural Course (2")

10" Limerock Base Course
 LBR 100/98% Maximum Density
 Per AASHTO T-180
 Primed Entire Width

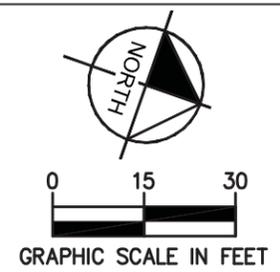
12" Stabilized Subgrade
 LBR 100/98% Maximum Density
 Per AASHTO T-180

CONCEPT PLANS



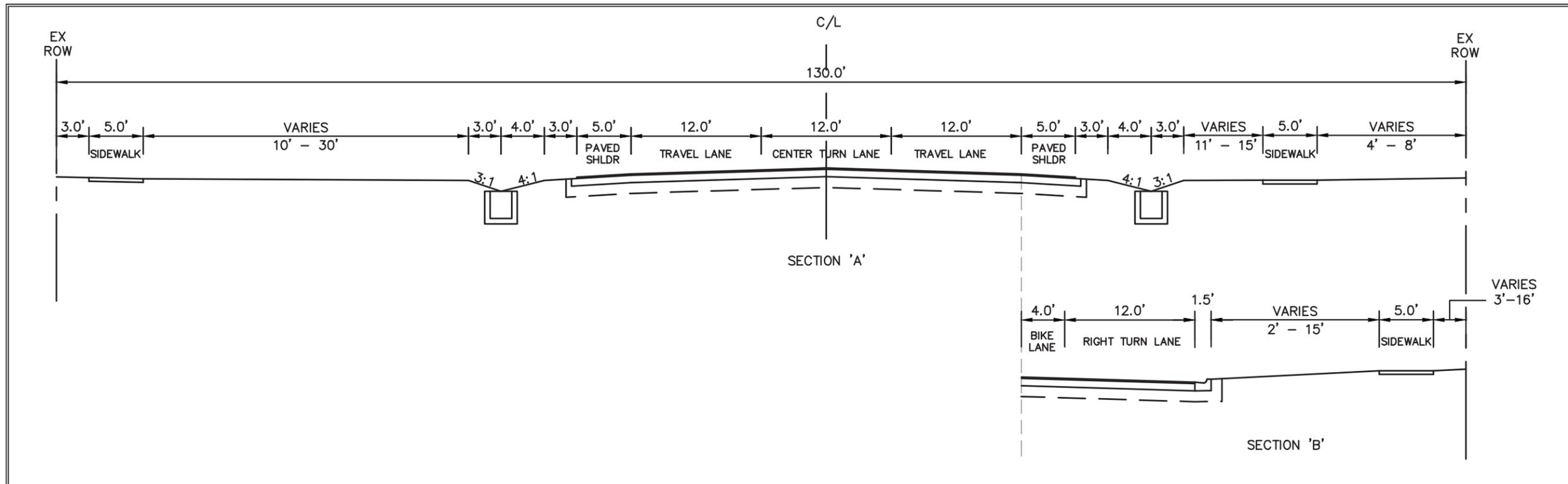
LEGEND

EXISTING RIGHT-OF-WAY:	PAVED SHOULDER:	RIGHT-OF-WAY ACQUISITION PARCEL:	CONCRETE SIDEWALK/DRIVEWAY:
EXISTING PROPERTY LINE:	GRASS SHOULDER:	TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):	STORM WATER CONVEYANCE/TREATMENT AREAS:
EXISTING EASEMENT:	TOP OF SWALE:	FLEXIBLE PAVEMENT:	POTENTIAL POND SITE:
PROPOSED RIGHT-OF-WAY:	BOTTOM OF SWALE:		
CENTERLINE:	SIDE DRAIN:		
PAVEMENT MARKING:	SIDEWALK:		
EDGE OF PAVEMENT:	MITERED END SECTION:		
CURB AND GUTTER:			





CONCEPT PLANS



Roberts Road Typical Section

Section 'A' - Remainder Sheet 89
 Section 'B' - From STA: 93+00 To STA: 94+75

Pavement Design

Friction Course - 9.5 (1.5")

Type SP - 12.5 Structural Course (2")

10" Limerock Base Course
 LBR 100/98% Maximum Density
 Per AASHTO T-180
 Primed Entire Width

12" Stabilized Subgrade
 LBR 100/98% Maximum Density
 Per AASHTO T-180

Greenridge Cir. E/Ivy Lakes Dr.

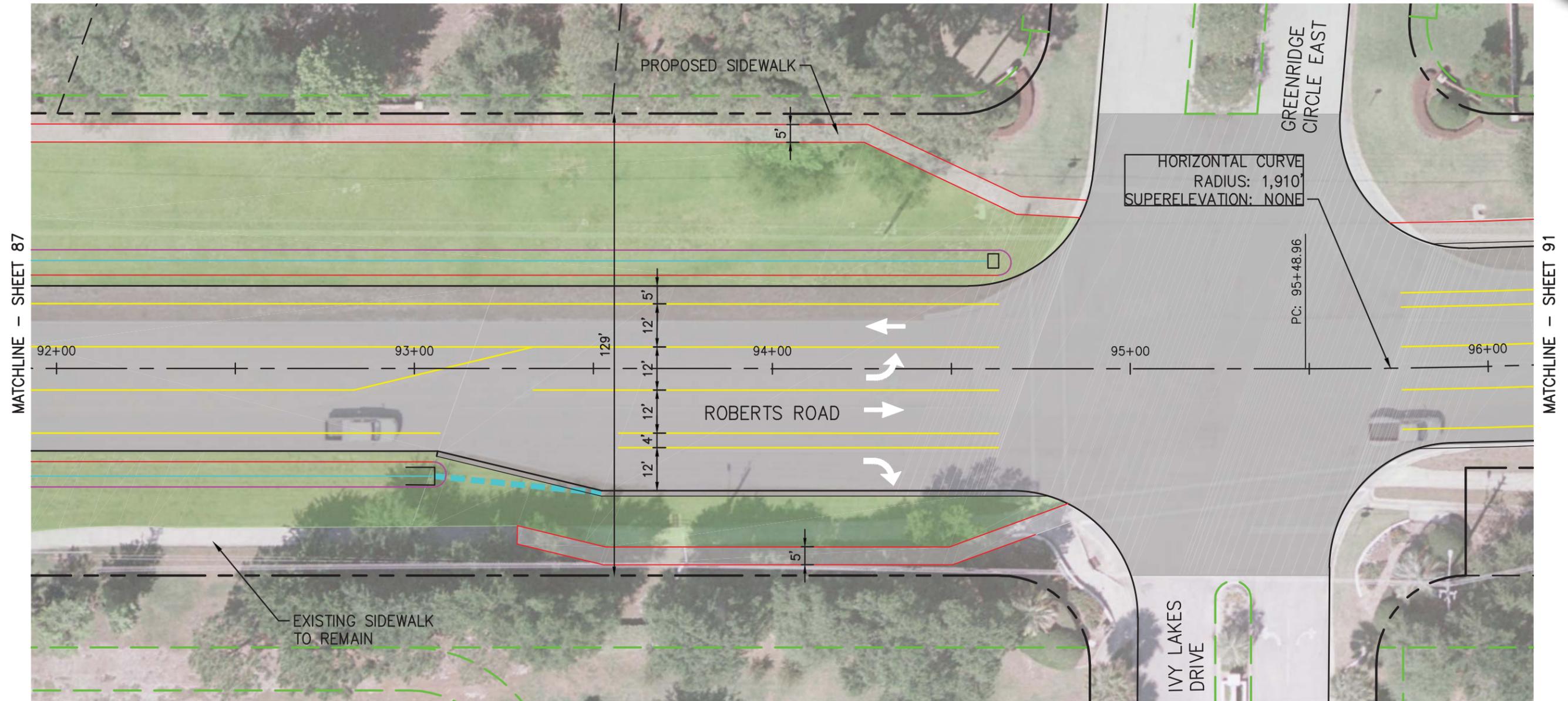
The intersection of Greenridge Circle East/Ivy Lakes Drive at Roberts Road is a two-way, stop-controlled intersection with Greenridge Circle East being the west leg to the intersection controlled by a stop sign, Ivy Lakes Drive being the east leg to the intersection controlled by a stop sign, and Roberts Road operating as free-flow. As summarized in Tables 6 and 7, the Greenridge Circle East stop-controlled approach currently operates at LOS C during the AM and PM Peak Hours and the Ivy Lakes Drive stop-controlled approach operates at LOS E during the AM Peak Hour and LOS C during the PM Peak Hour. Exclusive left-turn and right-turn lanes are present in the northbound and southbound directions. As summarized in Tables 8 and 9, the existing northbound left-turn lane length is sufficient to accommodate the existing traffic queues. The southbound left-turn lane is anticipated to require 50 feet of storage and 155 feet of deceleration and taper distance for a total turn lane length of 205 feet. The existing southbound left-turn lane is approximately 175 feet long and requires an additional 30 feet to accommodate the full storage, deceleration, and taper length. The northbound and southbound right-turn

lanes operate as uncontrolled and no storage length is required. The total required length is therefore 155 feet to accommodate deceleration and taper. The existing northbound right-turn lane is approximately 150 feet long and requires an additional 5 feet to accommodate the full deceleration and taper length. The existing southbound right-turn lane is approximately 145 feet long and requires an additional 10 feet to accommodate the full deceleration and taper length.

Needs:

- Additional 30 feet of storage for southbound left-turn lane
- Additional 5 feet of deceleration for northbound right-turn lane
- Additional 10 feet of deceleration for southbound right-turn lane

CONCEPT PLANS



LEGEND

EXISTING RIGHT-OF-WAY:	PAVED SHOULDER:	RIGHT-OF-WAY ACQUISITION PARCEL:	CONCRETE SIDEWALK/DRIVEWAY:
EXISTING PROPERTY LINE:	GRASS SHOULDER:	TEMPORARY CONSTRUCTION EASEMENT (T.C.E.):	STORM WATER CONVEYANCE/TREATMENT AREAS:
EXISTING EASEMENT:	TOP OF SWALE:	FLEXIBLE PAVEMENT:	POTENTIAL POND SITE:
PROPOSED RIGHT-OF-WAY:	BOTTOM OF SWALE:		
CENTERLINE:	SIDE DRAIN:		
PAVEMENT MARKING:	SIDEWALK:		
EDGE OF PAVEMENT:	MITERED END SECTION:		
CURB AND GUTTER:			

