

**Northfield**  
**TRANSPORTATION CAPITAL EXPANSION FEE (TCEF) - SUNIGA REIMBURSEMENT**

Design Engineer: J.Claeys  
 Design Firm: Highland Development Services  
 Project Number: 18-1000-03  
 Date: October 10, 2022

**REFERENCES:**

GLH Construction - Request for Payment, Invoice # 201122707, Dated 11/24/2021  
 GLH Construction - Northfield - Phase 1, Suniga Reimbursements, Dated 1/7/22  
 Northfield - TCEF Suniga - Estimated Street Runoff Comparisons, prepared by HDS, Dated 5/11/22  
 Highland Development Services - Invoice # 1296, Dated 9/27/21  
 Landmark Construction Solutions - Invoice # 90-02929, Dated 12/31/21  
 City of Fort Collins - Irrigation Tap Invoice - Permit # 643873 & Permit # 643875  
 Landscape Concepts - Landscape & Irrigation Installation, Dated 6/2/22

**Suniga Roadway Lengths**

Onsite Length (east to Lemay)	2167	LF
Offsite Length (west to Redwood)	455	LF
<b>Total</b>	<b>2622</b>	<b>LF</b>

**Street Section References**

	Local Residential	Suniga (4-lane Arterial)
Right-of-Way (ft)	51	115
Pavement Width (FL-FL, ft)	30	65
Median Width (excluding turn lane, ft)	N/A	19
Protected Bike Lane Width (ft)	N/A	6
Bike Lane Buffer Width (ft)	N/A	3.5
Parkway Width (ft)	6	9.5
Sidewalk Width (ft)	4.5	6
Constructed Fly Ash Depth (in)	12	12
Pavement Road Base (in)	6	15
Sections Asphalt (in)	4	8

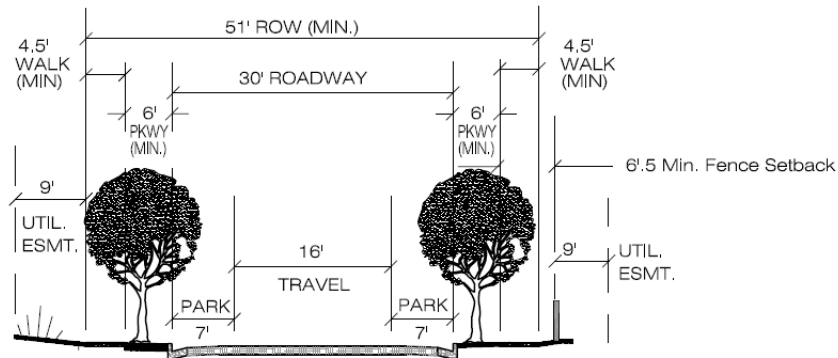
**COST DETERMINATION/ALLOCATION:**

GLH No.	Description	Quantity	Units	Unit Cost	Total	TCEF		Developer		Notes
						Quantity	Cost	Quantity	Cost	
<b>General Site Work</b>										
001	General Site Work	1	LS	\$ 408,122.53	\$ 408,122.53	0.65	\$ 265,279.64	0.35	\$ 142,842.89	Assumed that majority of this is directly related to arterial section status and associated utility uses
<b>Storm Sewer</b>										
225	SD-24 (NECCO A3 Lateral)	1	LS	\$ 32,583.28	\$ 32,583.28	1.00	\$ 32,583.28	0.00	\$ -	This line is for offsite purposes only and installed w/ offsite Suniga
243	SD-19 (NECCO A8 Lateral)	1	LS	\$ 54,327.57	\$ 54,327.57	0.40	\$ 21,731.03	0.60	\$ 32,596.54	This line is sized for arterial, applied estimated ratio of local vs arterial flows, estimate accounts for Pond D outlet
266	SD-21 (NECCO A5 Lateral)	1	LS	\$ 72,099.62	\$ 72,099.62	0.40	\$ 28,839.85	0.60	\$ 43,259.77	This line is sized for arterial, applied estimated ratio of local vs arterial flows
273	SD-20 (NECCO A7 Lateral)	1	LS	\$ 62,809.82	\$ 62,809.82	0.40	\$ 25,123.93	0.60	\$ 37,685.89	This line is sized for arterial, applied estimated ratio of local vs arterial flows
295	Western Median Underdrain	1	LS	\$ 33,981.70	\$ 33,981.70	1.00	\$ 33,981.70	0.00	\$ -	All Suniga related, median not required for local street
298	Central Median Underdrain	1	LS	\$ 28,885.52	\$ 28,885.52	1.00	\$ 28,885.52	0.00	\$ -	All Suniga related, median not required for local street
301	Eastern Median Underdrain	1	LS	\$ 28,136.52	\$ 28,136.52	1.00	\$ 28,136.52	0.00	\$ -	All Suniga related, median not required for local street
<b>Concrete Prep - Suniga</b>										
349	Curb & Gutter Prep	8,975	LF	\$ 3.00	\$ 26,925.00	4,876	\$ 14,628.00	4,099	\$ 12,297.00	Local responsible for outside C&G prep, assumed remaining is median C&G prep, referenced GLH quantity
350	Detached Sidewalk Prep	4,093	LF	\$ 2.93	\$ 11,992.49	0.25	\$ 2,998.12	0.75	\$ 8,994.37	TCEF/Developer Unit Cost Based on walk widths (1.5/6=25%)
351	Radius Prep	24	EA	\$ 328.13	\$ 7,875.12	16.00	\$ 5,250.08	8.00	\$ 2,625.04	Local require intersection curb returns, remaining assumed related to median & bike lane
352	3' Buffer Lane & 6' Bike Lane	3,947	LF	\$ 3.54	\$ 13,972.38	1.00	\$ 13,972.38	0.00	\$ -	All Suniga related, protected bike lane not required for local street
<b>Concrete Placement - Suniga</b>										
354	18" Vertical Curb & Gutter	3,875	LF	\$ 22.12	\$ 85,715.00	1.00	\$ 85,715.00	0.00	\$ -	All Suniga related, median not required for local street
355	18" Double Vertical	1,164	LF	\$ 45.36	\$ 52,799.04	1.00	\$ 52,799.04	0.00	\$ -	All Suniga related, median not required for local street
356	30" Vertical Curb & Gutter	4,099	LF	\$ 24.14	\$ 98,949.86	0.00	\$ -	1.00	\$ 98,949.86	Local Requirement
357	Median Nose	5	EA	\$ 560.00	\$ 2,800.00	1.00	\$ 2,800.00	0.00	\$ -	All Suniga related, median not required for local street
358	Median Cover @ Box Culvert	284	SF	\$ 12.32	\$ 3,498.88	1.00	\$ 3,498.88	0.00	\$ -	All Suniga related, median not required for local street
359	6' Detached Sidewalk	3,861	LF	\$ 35.84	\$ 138,378.24	0.25	\$ 34,594.56	0.75	\$ 103,783.68	TCEF/Developer Unit Cost Based on walk widths (1.5/6=25%)

**COST DETERMINATION/ALLOCATION:**

GLH No.	Description	Quantity	Units	Unit Cost	Total	TCEF		Developer		Notes
						Quantity	Cost	Quantity	Cost	
360	8' Detached Sidewalk	102	LF	\$ 47.77	\$ 4,872.54	0.44	\$ 2,143.92	0.56	\$ 2,728.62	TCEF/Developer Unit Cost Based on walk widths (3.5/8=44%)
361	10' Detached Sidewalk	130	LF	\$ 59.64	\$ 7,753.20	0.55	\$ 4,264.26	0.45	\$ 3,488.94	TCEF/Developer Unit Cost Based on walk widths (5.5/10=55%)
362	Square Radii	24	EA	\$ 2,856.00	\$ 68,544.00	16.00	\$ 45,696.00	8.00	\$ 22,848.00	Local require intersection curb returns, remaining assumed related to median & bike lane
363	Handi-Cap Ramps w/ Trunc Domes	4	EA	\$ 1,344.00	\$ 5,376.00	0.00	\$ -	1.00	\$ 5,376.00	Local Requirement
364	Bike Lane Ramps-No Domes	10	EA	\$ 1,120.00	\$ 11,200.00	1.00	\$ 11,200.00	0.00	\$ -	All Suniga related, protected bike lane not required for local street
365	3.5' Conc Buffer Lane 6" Thick	11,841	SF	\$ 5.77	\$ 68,322.57	1.00	\$ 68,322.57	0.00	\$ -	All Suniga related, protected bike lane not required for local street
366	6' Concrete Bike Lane 6" Thick	3,956	LF	\$ 35.84	\$ 141,783.04	1.00	\$ 141,783.04	0.00	\$ -	All Suniga related, protected bike lane not required for local street
<b>Asphalt Prep</b>										
379	Subgrade Prep - Streets	12,260	SY	\$ 2.89	\$ 35,431.40	6,000	\$ 17,339.36	6,260	\$ 18,092.04	Local SY based on pavement width (EOA-EOA)
<b>Asphalt Placement</b>										
381	Asphalt Mobilization	1	EA	\$ 1,680.00	\$ 1,680.00	0.49	\$ 822.16	0.51	\$ 857.84	TCEF/Developer Unit Cost based on pavement ratio [(12,260-6,260)/12,260=49%, reference GLH No. 379]
382	6" Road Base - 1' Behind TBC	15,277	SY	\$ 10.08	\$ 153,992.16	7,331	\$ 73,899.84	7,946	\$ 80,092.32	Local SY based on pavement width (FL-FL+3)
383	Fly Ash Subgrade Prep	13,458	SY	\$ 12.87	\$ 173,204.46	5,512	\$ 70,943.73	7,946	\$ 102,260.73	Local SY based on pavement width (FL-FL+3), Assuming fly ash extended beyond C&G
384	10" Asphalt on Suniga	12,260	SY	\$ 45.98	\$ 563,714.80	6,000	\$ 275,869.78	6,260	\$ 287,845.02	Local SY based on pavement width (EOA-EOA)
385	Asphalt Wedges	48	LF	\$ 20.22	\$ 970.56	0.00	\$ -	1.00	\$ 970.56	Local Requirement
<b>West of Box Culvert</b>										
389	Curb & Gutter Prep	1,939	LF	\$ 3.00	\$ 5,817.00	954	\$ 2,862.00	985	\$ 2,955.00	Local responsible for outside C&G prep, assumed remaining is median C&G prep, referenced GLH quantity
390	Strip West Side of Box Culvert	650	CY	\$ 3.97	\$ 2,580.50	0.56	\$ 1,436.10	0.44	\$ 1,144.40	TCEF/Developer Unit Cost based on right-of-way ratio (51/115=44%)
391	Cut to Fill West Side of Box Culvert	975	CY	\$ 5.03	\$ 4,904.25	0.56	\$ 2,729.32	0.44	\$ 2,174.93	TCEF/Developer Unit Cost based on right-of-way ratio (51/115=44%)
392	Export Excess Dirt Stock Pile	530	CY	\$ 10.03	\$ 5,315.90	0.56	\$ 2,958.41	0.44	\$ 2,357.49	TCEF/Developer Unit Cost based on right-of-way ratio (51/115=44%)
393	Detached Sidewalk Prep	914	LF	\$ 2.93	\$ 2,678.02	0.25	\$ 669.51	0.75	\$ 2,008.52	TCEF/Developer Unit Cost Based on walk widths (1.5/6=25%)
394	Radius Prep	2	EA	\$ 328.13	\$ 656.26	0.00	\$ -	2.00	\$ 656.26	Local require intersection curb returns
395	3.5' Buffer Lane & 6' Bike Lane Prep	859	LF	\$ 3.54	\$ 3,040.86	1.00	\$ 3,040.86	0.00	\$ -	All Suniga related, protected bike lane not required for local street
396	18" Vertical Curb & Gutter	852	LF	\$ 22.12	\$ 18,846.24	1.00	\$ 18,846.24	0.00	\$ -	All Suniga related, median not required for local street
397	18" Double Vertical	102	LF	\$ 45.36	\$ 4,626.72	1.00	\$ 4,626.72	0.00	\$ -	All Suniga related, median not required for local street
398	30" Vertical Curb & Gutter	953	LF	\$ 24.14	\$ 23,005.42	0.00	\$ -	1.00	\$ 23,005.42	Local Requirement
399	31" Rollover Curb & Gutter	32	LF	\$ 31.36	\$ 1,003.52	0.00	\$ -	1.00	\$ 1,003.52	Local Requirement
400	Median Cover @ Box Culvert	344	SF	\$ 12.32	\$ 4,238.08	1.00	\$ 4,238.08	0.00	\$ -	All Suniga related, median not required for local street
401	6' Detached Sidewalk	795	LF	\$ 35.84	\$ 28,492.80	0.25	\$ 7,123.20	0.75	\$ 21,369.60	TCEF/Developer Unit Cost Based on walk widths (1.5/6=25%)
402	8' Detached Sidewalk	119	LF	\$ 47.77	\$ 5,684.63	0.44	\$ 2,501.24	0.56	\$ 3,183.39	TCEF/Developer Unit Cost Based on walk widths (3.5/8=44%)
403	Square Radii	2	EA	\$ 2,856.00	\$ 5,712.00	0.00	\$ -	2.00	\$ 5,712.00	Local require intersection curb returns
404	Handi-Cap Ramps w/ Trunc Domes	4	EA	\$ 1,344.00	\$ 5,376.00	0.00	\$ -	1.00	\$ 5,376.00	Local Requirement
405	Bike Lane Ramps-No Domes	2	EA	\$ 1,120.00	\$ 2,240.00	0.00	\$ -	1.00	\$ 2,240.00	All Suniga related, protected bike lane not required for local street
406	3.5' Conc Buffer Lane 6" Thick	2,577	SF	\$ 5.77	\$ 14,869.29	1.00	\$ 14,869.29	0.00	\$ -	All Suniga related, protected bike lane not required for local street
407	6' Concrete Bike Lane 6" Thick	859	LF	\$ 35.84	\$ 30,786.56	1.00	\$ 30,786.56	0.00	\$ -	All Suniga related, protected bike lane not required for local street
408	Subgrade Prep - Streets	2,735	SY	\$ 2.89	\$ 7,904.15	1,421	\$ 4,105.41	1,314	\$ 3,798.74	Local SY based on pavement width (EOA-EOA)
409	6" Road Base - 1' Behind TBC	3,584	SY	\$ 10.08	\$ 36,126.72	1,916	\$ 19,309.92	1,668	\$ 16,816.80	Local SY based on pavement width (FL-FL+3)
410	Fly Ash Subgrade Prep	6,630	SY	\$ 12.87	\$ 85,328.10	4,962	\$ 63,856.65	1,668	\$ 21,471.45	Local SY based on pavement width (FL-FL+3), Assuming fly ash extended beyond C&G
411	10" Asphalt on Suniga	2,735	SY	\$ 45.98	\$ 125,755.30	1,421	\$ 65,317.14	1,314	\$ 60,438.16	Local SY based on pavement width (EOA-EOA)
412	Asphalt Wedges	48	LF	\$ 20.22	\$ 970.56	0.00	\$ -	1.00	\$ 970.56	Local Requirement
<b>Change Orders</b>										
436	Deduct 2" Asphalt	-15,074	SY	\$ 9.18	\$ (138,379.32)	-7,499	\$ (68,843.88)	-7,575	\$ (69,535.44)	Local SY based on pavement width (EOA-EOA)
437	Add 9" Road Base	15,074	SY	\$ 12.92	\$ 194,756.08	7,499	\$ 96,891.39	7,575	\$ 97,864.69	Local SY based on pavement width (EOA-EOA)
<b>Total</b>					<b>\$ 2,883,032.94</b>	<b>TCEF</b>	<b>\$ 1,670,426.34</b>	<b>Developer</b>	<b>\$ 1,212,606.60</b>	
<b>Roadway Design</b>										
	HDS (Invoice# 1296)	1	LS	\$ 42,800.00	\$ 42,800.00	0.58	\$ 24,798.28	0.42	\$ 18,001.72	Ratio based on total construction costs
<b>Construction Management</b>										
	LCS (Invoice# 90-02929)	1	LS	\$ 128,878.88	\$ 128,878.88	0.58	\$ 74,672.29	0.42	\$ 54,206.59	Ratio based on total construction costs
<b>Suniga Median Landscaping</b>										
	Irrigation Tap - POC D	1	LS	\$ 29,593.51	\$ 29,593.51	1.00	\$ 29,593.51	0.00	\$ -	All Suniga related, median not required for local street
	Irrigation Tap - POC E	1	LS	\$ 33,857.33	\$ 33,857.33	1.00	\$ 33,857.33	0.00	\$ -	All Suniga related, median not required for local street
	Median Landscape & Irrigation Installation	1	LS	\$ 248,200.00	\$ 248,200.00	1.00	\$ 248,200.00	0.00	\$ -	All Suniga related, median not required for local street, Final Invoice from Landscape Concepts
<b>Grand Total</b>					<b>\$ 3,054,711.82</b>	<b>TCEF</b>	<b>\$ 2,081,547.75</b>	<b>Developer</b>	<b>\$ 1,284,814.91</b>	

# FORT COLLINS ONLY



## INTERSECTIONS (WHERE NEEDED)

ROADWAY WIDTH: 30' wide.

RIGHT OF WAY WIDTH: 51' (min), plus 18' (min.) utility easement.

TRAVEL LANES: 16' wide.

LEFT TURN LANES: None.

BIKE LANES: Bicyclists to share travel lane with motor vehicles. Additional street width, up to 4' wider, may be required in the travel lane to accommodate bike traffic to serve activity areas, such as schools and parks.

PARKING: Two lanes 7' wide.

SIDEWALK: 4.5' (min.) width. Additional width may be required for higher pedestrian traffic serving activity areas.

MEDIANS: None.

WHERE USED: May be used for residential local streets providing access to single family detached dwellings with driveways.

DESIGN SPEED: 25 MPH

SPEED LIMIT: 25 MPH

ACCESS: Access will be unlimited in accordance with these standards.

CONTINUITY: The street shall be continuous for no more than 1320 feet.

FENCES: Fences shall be setback a minimum of 6.5' from the parkway edge of the sidewalk.

CURB AND GUTTER: Vertical curb and gutter, or driveover. However, if driveover is used, the parkways must be widened by 1' and thereby, the required right of way width will increase by 2' to provide 53'.

## RESIDENTIAL LOCAL STREET

LARIMER COUNTY  
URBAN AREA  
STREET STANDARDS

DESIGN  
FIGURE

REVISION NO:

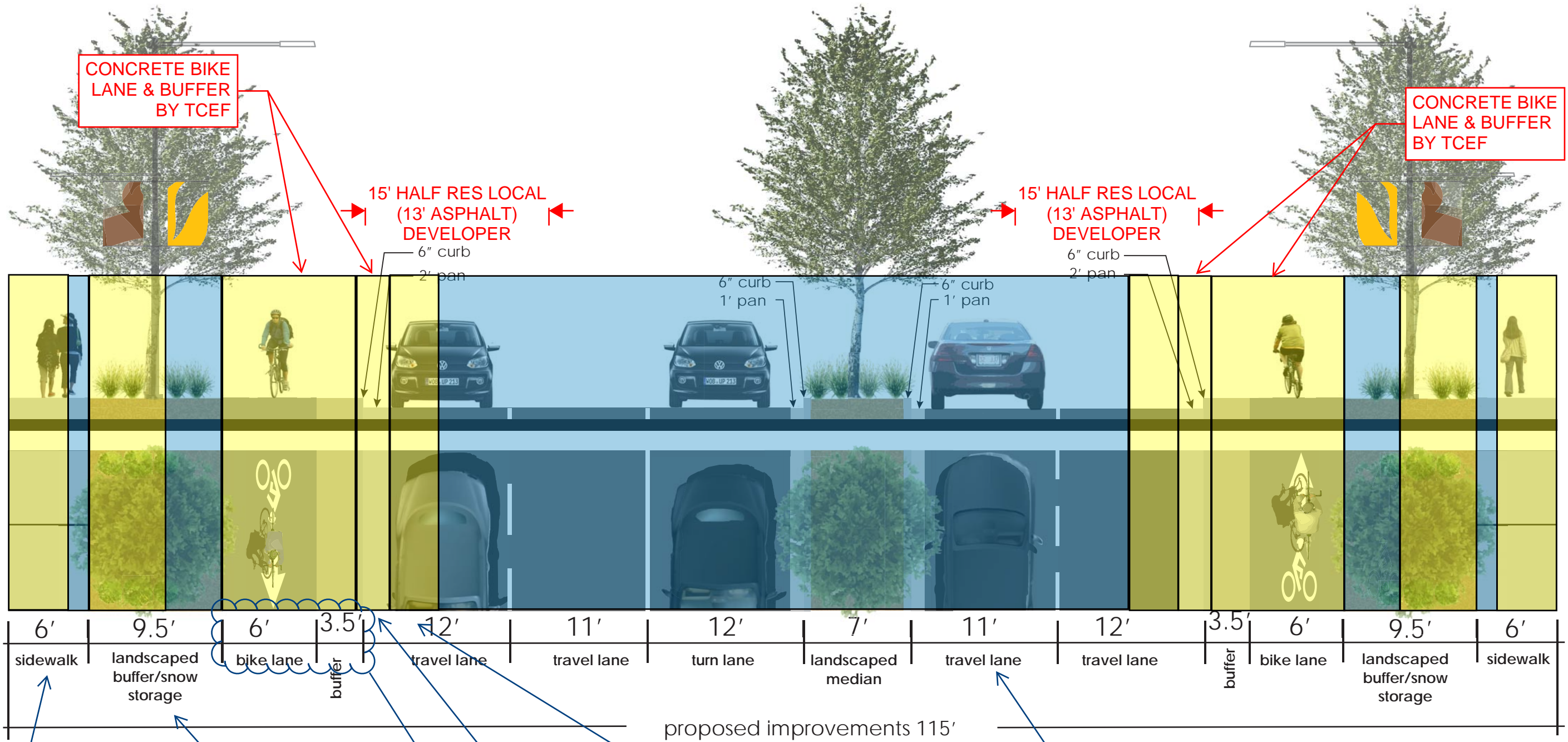
DATE: September, 2016

FIGURE

7-9F

Looking West

Reimbursement Cross Section for Suniga constructed by Northfield Development



Sidewalk Developer - 4.5'  
TCEF - 1.5'

Parkway Developer - 5.5'  
TCEF - 4'

Bike Lane and Buffer Developer - 9'  
TCEF - 0'  
(Applying 9' as local street pavement section)

Curb and Gutter is responsibility of Developer

Additional 4' of pavement responsibility of Developer. Satisfies local street pavement section of 13'

Middle section of roadway shown in blue is responsibility of TCEF.

Suniga Road  
Option #5 - curbside raised protection

N.T.S.