Community & Economic Development Department

adcogov.org

ADAMS COUNTY COLORADO

4430 South Adams County Parkway
1st Floor, Suite W2000B
Brighton, CO 80601-8218

PHONE 720.523.6800

EMAIL epermitcenter@adcogov.org

Request for Comments

Case Name: 120th Avenue RV Storage
Case Number: RCU2023-00069

January 30, 2024

The Adams County Planning Commission is requesting comments on the following application: **Conditional use permit to allow Boat and/or Recreational Vehicle Storage within the Agricultural-3 and Mineral Conservation Overlay zone districts.** This request is located at 10925 E 120th Avenue. The Assessor's Parcel Number is 0157135301001. The applicant is Carlson Associates, Inc., 12460 1st St., P.O. Box 247, Eastlake, CO 80614.

Please forward any written comments on this application to the Community and Economic Development Department at 4430 South Adams County Parkway, Suite W2000A, Brighton, CO 80601-8216, or call (720) 523-6800 by February 23, 2024, in order that your comments may be taken into consideration in the review of this case. If you would like your comments included verbatim please send your response by way of e-mail to GJBarnes@adcogov.org.

Once comments have been received and the staff report written, the staff report and notice of public hearing dates may be forwarded to you upon request. The full text of the proposed request and additional colored maps can be obtained by contacting this office or by accessing the Adams County web site at www.adcogov.org/current-land-use-cases. Thank you for your review of this case.

Greg Barnes
Principal Planner

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PEOPLE + PLACEMAKING

1101 Bannock Street
Denver, Colorado 80204
303.892.1166

January 22, 2024

Adams County
Layla Bajelan
4430 South Adams County Parkway
1st Floor, Suite W2000B
Brighton, CO 80601-8218

Re: 120TH Avenue RV Storage – Conditional Use Permit and Variance Request

Dear Ms. Layla Bajelan,

Norris Design, on behalf of the property owner and applicant, 120 85 LLC, is pleased to propose a new RV storage project located at 10925 E. 120th Ave. in unincorporated Adams County. The property is zoned A-3 and the proposed project requires a Conditional Use Permit. The project includes (865) RV storage lots across 39.9 acres, and construction is proposed to be completed in one phase.

The site previously functioned as an open-pit mine, and currently serves as a landfill and business, accepting inert construction debris and selling crushed asphalt and concrete. The geotechnical reports speculates that the pit likely accepted and placed construction debris of various materials and sizes throughout; there are no records indicating that the landfill has been compacted at any time. With that in mind, the report states that there is inherent risk that the soils could contain or conceal unsuitable materials or voids in the debris. It states that any structural foundations would be subject to unpredictable movements.

Given these conditions, an agricultural use on this site would be infeasible due to unclean soils; and any land use that requires permanent structures would be unstable. This makes RV Storage a logical use of the land.

Access and Site Improvements
Access to the site is provided from E. 120th Ave. frontage road on the south side of the site.

Engineered improvements to the site are as follows:

To facilitate the future planned use of the site as a RV storage, onsite storm sewer and associated treatment measures are included as part of the Engineering improvements for this project, in addition to site grading to create acceptable drainage patterns onsite. An onsite detention pond will be located in the southwest corner of the site, treating the flows created by the site before releasing them offsite. Flows are be conveyed to the pond through a series of onsite swales, inlets and storm sewer. Two options are shown for the ultimate outfall configuration of the site, option 1 outfalls into the planned Henderson Creek Drainageway Improvements, by RESPEC engineering, just west of the site. Option 2 has the site outfall to the existing storm sewer located within 120th Avenue.

Additional utility improvements include the addition of an onsite sanitary dumping station in the southwest corner of the site, the final location of the dumping station shall adhere to all applicable setback requirements. The site will include several 30' access drive isles to allow for movement around the site, the material of these drives and the associated RV storage areas shall be recycled asphalt rated for the traffic load anticipated onsite.

Landscape improvements to the site are as follows:

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A 100' landscape buffer has been provided along the entire site perimeter. This buffer includes a native seed ground cover, landscape berms, solid screen fencing that runs along the crest of the berm, and vegetation. A mix of deciduous and evergreen trees and shrubs have been planted within the buffer yard per Adams County development standards. As part of this project, the development team is requesting a 50% reduction in the required plant material, with the intent to maintain the fencing and berm in order to meet screening requirements.

Approval Criteria
The Planning Commission, in making their recommendation and the Board of County Commissioners, in approving a conditional use permit, shall consider the Development Standards and Regulations Section 2-02-09-06 Conditional Use Permit Criteria for Approval:

1. The conditional use is permitted in the applicable zone district.

   Response: The most closely related use for the proposed project, as defined by the Land Development Code, is "Commercial Parking Lot," which is allowed with a Conditional Use Permit in the in the A-3 zone district.

2. The conditional use is consistent with the purposes of these standards and regulations.

   Response: The conditional use is consistent with the purposes of the standards and regulations found in the Land Development Code.

3. The conditional use will comply with the requirements of these standards and regulations including, but not limited to, all applicable performance standards.

   Response: The conditional use will comply with all the requirements of the standards and regulations including applicable performance standards found in the Land Development Code.

4. The conditional use is compatible with the surrounding area, harmonious with the character of the neighborhood, not detrimental to the immediate area, not detrimental to the future development of the area, and not detrimental to the health, safety, or welfare of the inhabitants of the area and the County. In making this determination, the Planning Commission and the Board of County Commissioners shall find, at a minimum, that the conditional use will not result in excessive traffic generation, noise, vibration, dust, glare, heat, smoke, fumes, gas, odors, or inappropriate hours of operation.

   Response: The adjacent parcels to the subject property are similarly zoned A-3, R-E, or Commercial, making the proposed project ideal for this area. This location is bounded by a major highway and road, with plans for a future exit bisecting the southeastern portion of the site. The inert landfill condition make the site less ideal for agriculture and more ideal for RV storage. To mitigate noise and provide screening for any visual clutter caused by this land use, a 100-foot-wide landscaped setback is provided with a berm along the south portion of the property. An 8-foot-tall fence is proposed around the perimeter of the property, situated on the ridgeline of berming and grading, to provide maximum visual screening. A 50-foot wide trail easement is included on the east side of the property, adjacent to Fulton ditch, which provides future amenities to the neighborhood.

5. The conditional use permit has addressed all off-site impacts.

   Response: The off-site impacts to the conditional use are minimal and the proposed plan has mitigated any such impacts through the buffer yards and the enhanced setbacks. Additionally, this site is at a higher grade than surrounding properties, along

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with a fence proposed at the ridgeline in order to further screen the site from view of adjacent parcels.

6. The site is suitable for the conditional use including adequate usable space, adequate access, and absence of environmental constraints.

   Response: The site is suitable for the proposed conditional use, and the proposed site plan illustrates its usable space, adequate access, and absence of environmental constraints for this type of land use. However, there are environmental constraints in terms of prior landfill that make this site inappropriate for agricultural uses.

7. The site plan for the proposed conditional use will provide the most convenient and functional use of the lot including the parking scheme, traffic circulation, open space, fencing, screening, landscaping, signage, and lighting.

   Response: The site plans for the proposed project includes parking, circulation, fencing, screening, landscaping, and lighting. Signage is not proposed.

8. Sewer, water, storm water drainage, fire protection, police protection, and roads are to be available and adequate to serve the needs of the conditional use as designed and proposed.

   Response: Sewer, water, drainage, fire and police protection, along with roads and any other needed utilities are provided to serve the needs of the conditional use as designed and proposed. Well permit forms demonstrating availability of utilities are included in this application.

It is worth noting that Conditional Use Permits do not require Mineral Rights Notification. As such, the Mineral Rights Notification form is not included as part of this submittal.

Thank you for your consideration of the proposed project. If you have any questions, please contact me at 303-892-1166 or eapplegate@norris-design.com.

Sincerely,
Norris Design

Elyse Applegate

Elyse Applegate
Associate Planner

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1101 Bannock Street
Denver, Colorado 80204
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January 22, 2024

Adams County
Layla Bajelan
4430 South Adams County Parkway
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Brighton, CO 80601-8218

Re: **120TH Avenue RV Storage Lot – Neighborhood Meeting Summary**

Dear Ms. Layla Bajelan,

A virtual Neighborhood Meeting for the 120th Avenue RV Storage Lots project was held on Wednesday, November 8, 2023 at 6:00 PM via Zoom webinar. Public notice was sent to surrounding property owners in accordance with Section 2-01-02-04-01 of the Land Development Code on October 26, 2023; included in this summary is a digital version of the notice sent, along with the names and addresses of property owners and a surrounding map.

Although notice was provided and the development team available to present, no members of the public attended the meeting. Included in this summary is a copy of the presentation prepared for the meeting.

If you have any questions, please contact me at 303-892-1166 or eapplegate@norris-design.com.

Sincerely,
Norris Design

Elyse Applegate

Elyse Applegate
Associate Planner

120TH AVENUE RV STORAGE

LOT 1, CORRIGAN SUBDIVISION , EXCEPT ANY PORTION THEREOF LYING WITHIN THE FULTON DITCH,
AND EXCEPT THAT PORTION CONVEYED TO THE COUNTY OF ADAMS, STATE OF COLORADO BY WARRANTY DEED RECORDED AUGUST 6, 2003 AT RECEPTION NUMBER C1188505,
AND EXCEPT THAT PORTION CONVEYED TO THE COUNTY OF ADAMS, STATE OF COLORADO BY SPECIAL WARRANTY DEED RECORDED MAY 11, 2011 AT RECEPTION NO. 2011000030387,
COUNTY OF ADAMS, STATE OF COLORADO

LEGAL DESCRIPTION

LOT 1, CORRIGAN SUBDIVISION ,EXCEPT ANY PORTION THERE OF LYING WITHIN THE FULTON DITCH, AND EXCEPT THAT PORTION CONVEYED TO THE COUNTY OF ADAMS, STATE OF COLORADO BY WARRANTY DEED RECORDED AUGUST 6, 2003 AT RECEPTION NUMBER C1188505, AND EXCEPT THAT PORTION CONVEYED TO THE COUNTY OF ADAMS, STATE OF COLORADO BY SPECIAL WARRANTY DEED RECORDED MAY 11, 2011 AT RECEPTION NO. 2011000030387, COUNTY OF ADAMS, STATE OF COLORADO.

SHEET INDEX

PROJECT TEAM

LAND OWNERS
120 85 LLC
10925 E. 120TH AVE.
HENDERSON, CO 80640

APPLICANTS
CARLSON ASSOCIATES INC.
12460 1ST STREET, PO BOX 247
EASTLAKE, CO. 80614
CONTACT: SCOTT CARLSON
303-457-2966

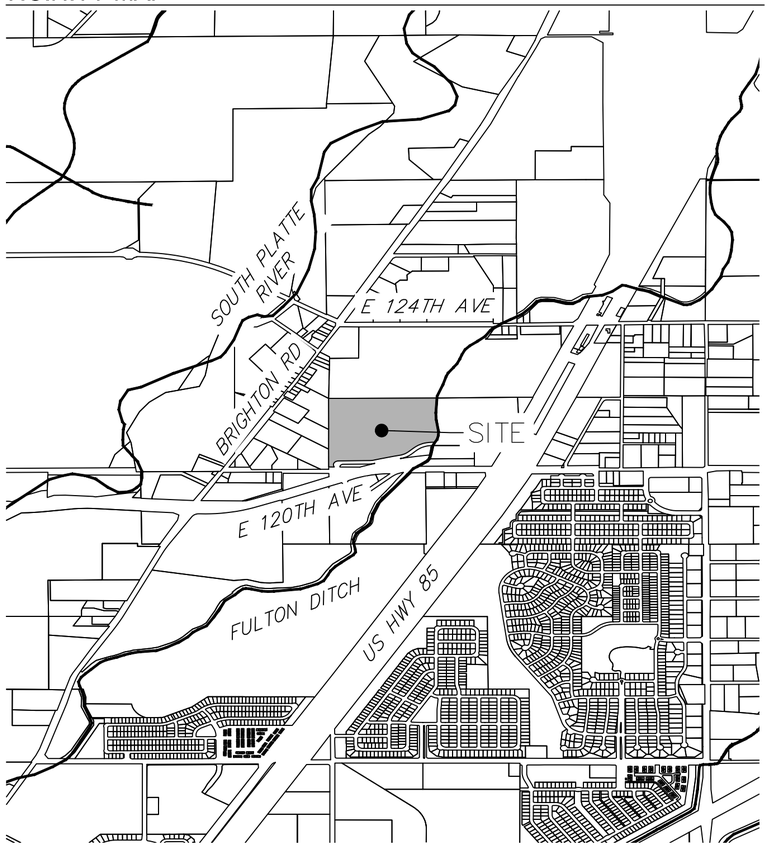
LANDSCAPE ARCHITECT:
NORRIS DESIGN
1101 BANNOCK STREET
DENVER, CO 80204
CONTACT: PATRICK HANNON
303-892-1166

CIVIL ENGINEER:
JR ENGINEERING
7200S.ALTON WAY SUITE C400
CENTENNIAL, CO 80112
CONTACT: JIM FITZMORRIS
303-267-6185

PLANNER:
NORRIS DESIGN
1101 BANNOCK STREET
DENVER, CO 80204
CONTACT: ELYSE APPELGATE
303-892-1166

SITE DATA TABLE	
TOTAL ACREAGE	39.9
RV SPACES QTY.	865

VICINITY MAP



COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT APPROVAL

APPROVAL BY THE ADAMS COUNTY COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT THIS ___DAY OF_____, A.D., 20_____.

_____
PLANNING AND DEVELOPMENT MANAGER

ADAMS COUNTY ATTORNEY'S OFFICE

_____
APPROVED AS TO FORM

CLERK AND RECORDER CERTIFICATE:

THIS CONDITIONAL USE PERMIT WAS FILED FOR RECORD IN THE OFFICE OF THE ADAMS COUNTY CLERK AND RECORDER IN THE STATE OF COLORADO AT _____M. ON THE____DAY OF_____20_____.

_____
COUNTY CLERK AND RECORDER

BY DEPUTY:_____

RECEPTION NO. _____

CERTIFICATE OF OWNERSHIP

LOCATED IN THE COUNTY OF ADAMS, STATE OF COLORADO HEREBY SUBMIT THIS CONDITIONAL USE PERMIT AND AGREES TO PERFORM UNDER THE TERMS NOTED HEREON:

OWNER:

BY:

BY:

_____

ACKNOWLEDGMENT:

STATE OF COLORADO)
)SS.
COUNTY OF)

THE FORGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS_____DAY OF _____A.D. 20_____.

NOTARY PUBLIC_____

MY COMMISSION EXPIRES: _____

BY:
BY:

_____

ACKNOWLEDGMENT:

STATE OF COLORADO)
)SS.
COUNTY OF)

THE FORGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS_____DAY OF _____A.D. 20_____.

NOTARY PUBLIC_____

MY COMMISSION EXPIRES: _____

BY:
BY:

_____

BY:

ACKNOWLEDGMENT:

STATE OF COLORADO)
)SS.
COUNTY OF)

THE FORGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS_____DAY OF _____A.D. 20_____.

NOTARY PUBLIC_____

MY COMMISSION EXPIRES: _____

ADDITIONS AND DELETIONS

THE FOLLOWING ADDITIONS AND DELETIONS IN THE PUD WERE MADE BY THE BOARD OF COUNTY COMMISSIONERS AT THE TIME OF APPROVAL.

_____

_____

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DENVER, CO 80204
P 303.892.1166
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120TH AVENUE RV STORAGE
10925 E. 120TH AVE.
ADAMS COUNTY, COLORADO

OWNER:
120 85 LLC
10925 E. 120TH AVE.
HENDERSON, COLORADO 80640
CONTACT TEL NUMBER

NOT FOR CONSTRUCTION

DATE:
01/16/2024 CUP-01
01/22/2024 CUP-01

SHEET TITLE:
COVER SHEET

G-001

CHECKED BY: PH, MB
DRAWN BY: SLPO

120TH AVENUE RV STORAGE

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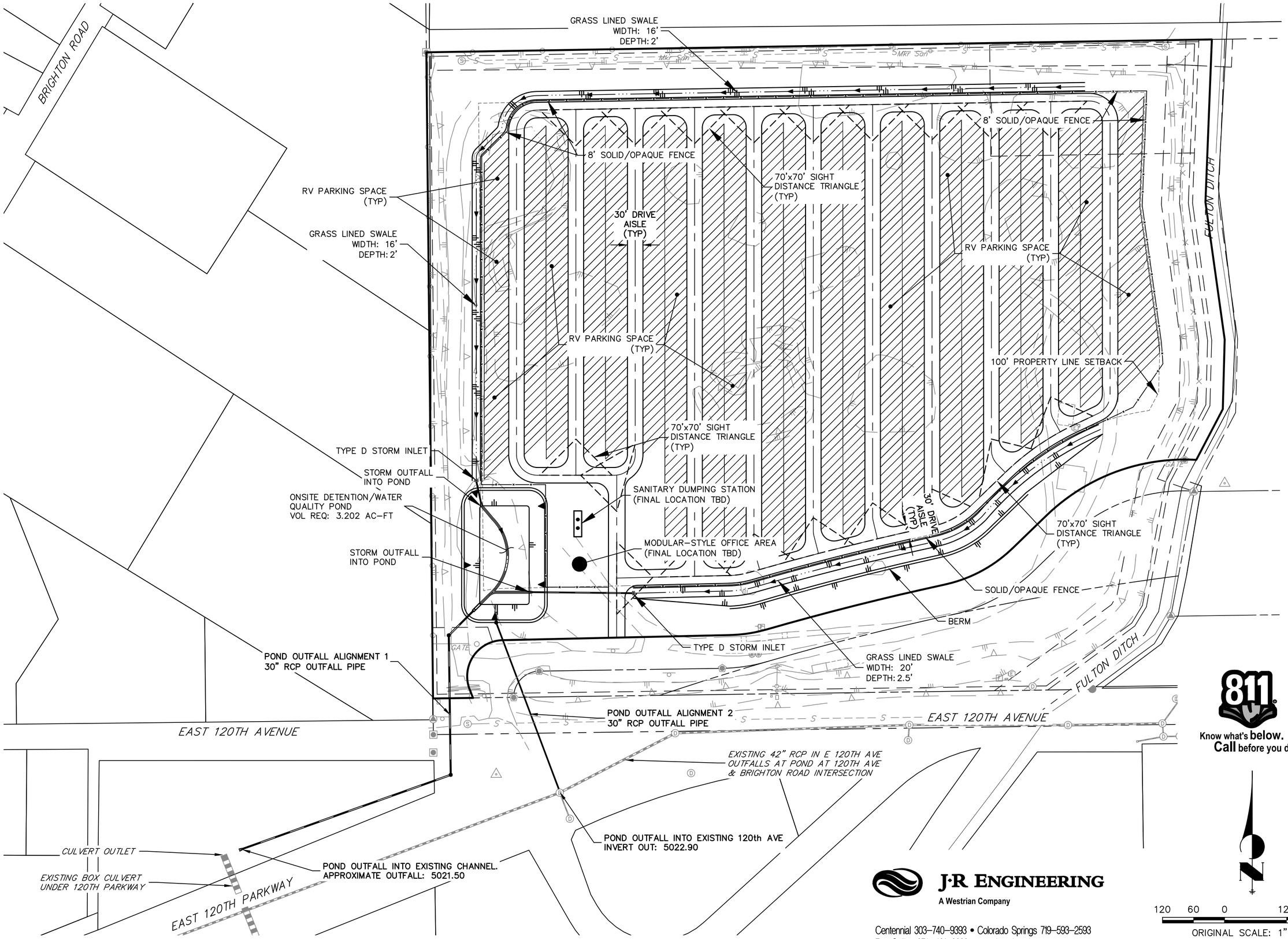

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Know what's **below.**
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120 60 0 120 240
ORIGINAL SCALE: 1" = 120'

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719-593-2593
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970-491-9888
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CONTACT TEL NUMBER

NOT FOR CONSTRUCTION

01/22/24
DATE:
01/22/2024 CUP-01

SHEET TITLE:
SITE PLAN

SP-001

CHECKED BY: JF
DRAWN BY: JBP

120TH AVENUE RV STORAGE

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LANDSCAPE NOTES

1. THE CONTRACTOR SHALL FOLLOW THE LANDSCAPE PLANS AND SPECIFICATIONS AS CLOSELY AS POSSIBLE. ANY SUBSTITUTION OR ALTERATION SHALL NOT BE ALLOWED WITHOUT APPROVAL OF THE OWNER'S REPRESENTATIVE. OVERALL PLANT QUANTITY AND QUALITY SHALL BE CONSISTENT WITH THE PLANS.
2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES. GRAPHIC QUANTITIES TAKES PRECEDENCE OVER WRITTEN QUANTITIES.
3. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND TAG ALL PLANT MATERIAL PRIOR TO SHIPPING TO THE SITE. IN ALL CASES, THE OWNER'S REPRESENTATIVE MAY REJECT PLANT MATERIAL AT THE SITE IF MATERIAL IS DAMAGED, DISEASED, OR DECLINING IN HEALTH AT THE TIME OF ONSITE INSPECTIONS OR IF THE PLANT MATERIAL DOES NOT MEET THE MINIMUM SPECIFIED STANDARD IDENTIFIED ON THE PLANS AND IN THE SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL MATERIALS AND PRODUCTS PRIOR TO INSTALLATION.
4. THE OWNER'S REPRESENTATIVE MAY ELECT TO UPSIZE PLANT MATERIAL AT THEIR DISCRETION BASED ON SELECTION, AVAILABILITY, OR TO ENHANCE SPECIFIC AREAS OF THE PROJECT. THE CONTRACTOR SHALL VERIFY PLANT MATERIAL SIZES WITH OWNER'S REPRESENTATIVE PRIOR TO PURCHASING, SHIPPING OR STOCKING OF PLANT MATERIALS. SUBMIT CHANGE ORDER REQUEST TO OWNER'S REPRESENTATIVE FOR APPROVAL IF ADDITIONAL COST IS REQUESTED BY THE CONTRACTOR PRIOR TO INSTALLATION. RE-STOCKING CHARGES WILL NOT BE APPROVED IF THE CONTRACTOR FAILS TO SUBMIT A REQUEST FOR MATERIAL CHANGES.
5. THE CONTRACTOR SHALL WARRANTY ALL CONTRACTED WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION HAS BEEN ISSUED BY THE OWNER'S REPRESENTATIVE FOR THE ENTIRE PROJECT UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS OR SPECIFICATIONS.
6. REFER TO IRRIGATION PLANS FOR LIMITS AND TYPES OF IRRIGATION DESIGNED FOR THE LANDSCAPE. IN NO CASE SHALL IRRIGATION BE EMITTED WITHIN THE MINIMUM DISTANCE FROM BUILDING OR WALL FOUNDATIONS AS STIPULATED IN THE GEOTECHNICAL REPORT. ALL IRRIGATION DISTRIBUTION LINES, HEADS AND EMITTERS SHALL BE KEPT OUTSIDE THE MINIMUM DISTANCE AWAY FROM ALL BUILDING AND WALL FOUNDATIONS AS STIPULATED IN THE GEOTECHNICAL REPORT.
7. LANDSCAPE MATERIAL LOCATIONS SHALL HAVE PRECEDENCE OVER IRRIGATION MAINLINE AND LATERAL LOCATIONS. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL.
8. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE EXISTS IN ALL LANDSCAPE AREAS. SURFACE DRAINAGE ON LANDSCAPE AREAS SHALL NOT FLOW TOWARD STRUCTURES AND FOUNDATIONS. MAINTAIN SLOPE AWAY FROM FOUNDATIONS PER THE GEOTECHNICAL REPORT RECOMMENDATIONS. ALL LANDSCAPE AREAS BETWEEN WALKS AND CURBS SHALL DRAIN FREELY TO THE CURB UNLESS OTHERWISE IDENTIFIED ON THE GRADING PLAN. IN NO CASE SHALL THE GRADE, TURF THATCH, OR OTHER LANDSCAPE MATERIALS DAM WATER AGAINST WALKS. MINIMUM SLOPES ON LANDSCAPE AREAS SHALL BE 2%; MAXIMUM SLOPE SHALL BE 25% UNLESS SPECIFICALLY IDENTIFIED ON THE PLANS OR APPROVED BY THE OWNER'S REPRESENTATIVE.
9. PRIOR TO INSTALLATION OF PLANT MATERIALS, AREAS THAT HAVE BEEN COMPACTED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE THOROUGHLY LOOSENED TO A DEPTH OF 8" - 12" AND AMENDED PER SPECIFICATIONS.
10. ALL LANDSCAPED AREAS ARE TO RECEIVE ORGANIC SOIL PREPARATION AT 5 cu.yrds/1,000sf OR AS NOTED IN THE TECHNICAL SPECIFICATIONS.
11. TREES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DRAINAGE AREAS, OR UTILITY EASEMENTS. CONTACT OWNER'S REPRESENTATIVE FOR RELOCATION OF PLANTS IN QUESTIONABLE AREAS PRIOR TO INSTALLATION.
12. THE CENTER OF EVERGREEN TREES SHALL NOT BE PLACED CLOSER THAN 8' AND THE CENTER OF ORNAMENTAL TREES CLOSER THAN 6' FROM A SIDEWALK, STREET OR DRIVE LANE. EVERGREEN TREES SHALL NOT BE LOCATED ANY CLOSER THAN 15' FROM IRRIGATION ROTOR HEADS. NOTIFY OWNER'S REPRESENTATIVE IF TREE LOCATIONS CONFLICT WITH THESE STANDARDS FOR FURTHER DIRECTION.
13. ALL EVERGREEN TREES SHALL BE FULLY BRANCHED TO THE GROUND AND SHALL NOT EXHIBIT SIGNS OF ACCELERATED GROWTH AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
14. ALL TREES ARE TO BE STAKED AND GUYED PER DETAILS FOR A PERIOD OF 1 YEAR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING STAKES AT THE END OF 1 YEAR FROM ACCEPTANCE OF LANDSCAPE INSTALLATION BY THE OWNER'S REPRESENTATIVE. OBTAIN APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO REMOVAL.
15. ALL TREES INSTALLED ABOVE RETAINING WALLS UTILIZING GEO-GRID MUST BE HAND DUG TO PROTECT GEO-GRID. IF GEO-GRID MUST BE CUT TO INSTALL TREES, APPROVAL MUST BE GIVEN BY OWNER'S REPRESENTATIVE PRIOR TO DOING WORK.
16. ALL TREES IN SEED OR TURF AREAS SHALL RECEIVE MULCH RINGS. OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE FOR ANY TREES THAT WILL NOT BE MULCHED FOR EXCESSIVE MOISTURE REASONS.
17. SHRUB, GROUNDCOVER AND PERENNIAL BEDS ARE TO BE CONTAINED BY 1/4" x 14 GAUGE GREEN, ROLL TOP, INTERLOCKING TYPE EDGER, RYERSON OR EQUAL. EDGER IS NOT REQUIRED WHEN ADJACENT TO CURBS, WALLS, WALKS OR SOLID FENCES WITHIN 3" OF PRE-MULCHED FINAL GRADE. EDGER SHALL NOT BE REQUIRED TO SEPARATE MULCH TYPES UNLESS SPECIFIED ON THE PLANS.
18. ALL SHRUB BEDS ARE TO BE MULCHED WITH MIN. 3" DEPTH, 1" - 2" RIVER ROCK LANDSCAPE MULCH OVER SPECIFIED GEOTEXTILE WEED CONTROL FABRIC. ALL GROUND COVER AND PERENNIAL FLOWER BEDS SHALL BE MULCHED WITH 2" DEPTH 3/4" RIVER ROCK LANDSCAPE MULCH. NO WEED CONTROL FABRIC IS REQUIRED IN GROUNDCOVER OR PERENNIAL AREAS.
19. AT SEED AREA BOUNDARIES ADJACENT TO EXISTING NATIVE AREAS, OVERLAP ABUTTING NATIVE AREAS BY THE FULL WIDTH OF THE SEEDER.
20. EXISTING TURF AREAS THAT ARE DISTURBED DURING CONSTRUCTION, ESTABLISHMENT AND THE MAINTENANCE PERIOD SHALL BE RESTORED WITH NEW SOD TO MATCH EXISTING TURF SPECIES. DISTURBED NATIVE AREAS WHICH ARE TO REMAIN SHALL BE OVER SEEDED AND RESTORED WITH SPECIFIED SEED MIX.
21. CONTRACTOR SHALL OVER SEED ALL MAINTENANCE OR SERVICE ACCESS BENCHES AND ROADS WITH SPECIFIED SEED MIX UNLESS OTHERWISE NOTED ON THE PLANS.
22. ALL SEEDED SLOPES EXCEEDING 25% IN GRADE (4:1) SHALL RECEIVE EROSION CONTROL BLANKETS. PRIOR TO INSTALLATION, NOTIFY OWNER'S REPRESENTATIVE FOR APPROVAL OF LOCATION AND ANY ADDITIONAL COST IF A CHANGE ORDER IS NECESSARY.
23. WHEN COMPLETE, ALL GRADES SHALL BE WITHIN +/- 1/8" OF FINISHED GRADES AS SHOWN ON THE PLANS.

CHECKED BY: PH, MB
DRAWN BY: SLPO

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SHEET TITLE:
LANDSCAPE NOTES

LS-001

120TH AVENUE RV STORAGE

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PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	WATER USE	HEIGHT	SPREAD
DECIDUOUS CANOPY TREES								
AC GM	4	ACER SACCHARUM `GREEN MOUNTAIN` TM	GREEN MOUNTAIN SUGAR MAPLE	B & B	2"CAL	MOD	40`-50`	20`-25`
CA SP	9	CATALPA SPECIOSA	NORTHERN CATALPA	B & B	2"CAL	LOW	40`-50`	30`-40`
GI AG	15	GINKGO BILOBA `AUTUMN GOLD` TM	AUTUMN GOLD GINKGO	B & B	2"CAL	MOD	25`-30`	25`-30`
GI PS	8	GINKGO BILOBA `PRINCETON SENTRY`	PRINCETON SENTRY GINKGO	B & B	2"CAL	MOD	30`-40`	10`-15`
QU RO	12	QUERCUS ROBUR	ENGLISH OAK	B & B	2"CAL	MOD	50`-80`	40`-60`
QU SH	12	QUERCUS SHUMARDII	SHUMARD RED OAK	B & B	2"CAL	LOW	40`-50`	30`-40`
EVERGREEN TREES								
PI PU	5	PICEA PUNGENS	COLORADO SPRUCE	B & B	8` HT.	MOD	40`-50`	25`-30`
PI NI	23	PINUS NIGRA	AUSTRIAN BLACK PINE	B & B	6` HEIGHT	LOW	40`-50`	30`-40`
PI SY	11	PINUS SYLVESTRIS	SCOTCH PINE	B & B	6` HEIGHT	LOW	40`-50`	25`-30`
DECIDUOUS SHRUBS								
BU AL	11	BUDDLEJA ALTERNIFOLIA `ARGENTEA`	SILVER FOUNTAIN BUTTERFLY BUSH	CONT.	#5	LOW	13`-15`	11`-12`
CO IS	21	CORNUS SERICEA `ISANTI`	ISANTI REDOSIER DOGWOOD	CONT.	#5	MOD	4`-5`	5`-6`
CO AC	27	COTONEASTER ACUTIFOLIUS	PEKING COTONEASTER	CONT.	#5	LOW	9`-12`	9`-10`
RH AU	10	RHUS TRILOBATA `AUTUMN AMBER`	AUTUMN AMBER SUMAC	CONT.	#5	VERY LOW	1`-2`	5`-6`
RI AU	15	RIBES AUREUM	GOLDEN CURRANT	CONT.	#5	LOW	5`-6`	5`-6`
SY PR	13	SYRINGA X PRESTONIAE 'JAMES MACFARLANE'	JAMES MACFARLANE LILAC	CONT.	#5			
EVERGREEN SHRUBS								
JU BR	6	JUNIPERUS SABINA `BROADMOOR`	BROADMOOR JUNIPER	CONT.	#5	LOW	1`-2`	5`-6`
JU CC	6	JUNIPERUS SABINA `CALGARY CARPET` TM	CALGARY CARPET JUNIPER	CONT.	#5	LOW	1`-2`	7`-8`
JU SC	11	JUNIPERUS SABINA `SCANDIA`	SCANDIA JUNIPER	CONT.	#5	LOW	1`-2`	5`-6`

MATERIAL SCHEDULE

		LANDSCAPE MATERIALS					
	CODE	DESCRIPTION	PRODUCT NAME	MANUFACTURER	CONTACT	COLOR / FINISH	SIZE / DIMENSIONS
	M-101	NATIVE SEED	NATIVE PRAIRIE MIX	PAWNEE BUTTES SEED INC. OR APPROVED EQUAL	N/A	NATUAL	SEE PLANS FOR AREA
	M-102	DETENTION SEED MIX	DETENTION SEED MIX	PAWNEE BUTTES SEED INC. OR APPROVED EQUAL			SEE PLANS FOR AREA
	M-103	CRUSHER FINES	CRUSHER FINES	PIONEER SAND CO. OR APPROVED EQUAL			

NATIVE PRAIRIE MIX BY PAWNEE BUTTES SEED, INC.

COMMON NAME	% OF MIX	PLS/ACRE
WESTERN WHEATGRASS	20%	3.00
BLUE GRAMA	29%	4.35
BUFFALOGRASS	25%	3.75
SAND DROPSEED	1%	0.15
SIDEOATS GRAMA	20%	3.00
GREEN NEEDLEGRASS	5%	0.75
	TOTAL 100%	15.00 PLS/ACRE

*IF BROADCAST METHOD IS USED, RATES SHALL BE DOUBLED

DETENTION SEED MIX

COMMON NAME	SCIENTIFIC NAME	% OF TOTAL	PLS PER ACRE
INDIAN RICEGRASS	ACHNATHERUM HYMENOIDES	5%	1.5 LBS.
BIG BLUESTEM	ANDROPOGON GERARDII	5%	1.5 LBS.
CANADA WILDRYE	ELYMUS CANADENSIS	5%	1.5 LBS.
BOTTLEBRUSH SQUIRRELTAIL	ELYMUS ELYMOIDES	5%	1.5 LBS.
PRAIRIE JUNEGRASS	KOELERIA MACRANTHA	8%	2.4 LBS.
SWITCHGRASS	PANICUM VIRGATUM	15%	4.5 LBS.
WESTERN WHEATGRASS	PASCOPYRUM SMITHII	10%	3.0 LBS.
PRAIRIE CORDGRASS	SPARTINA PECTINATA	15%	4.5 LBS.
ALKALI SACATON	SPOROBOLUS AIRODES	15%	4.5 LBS.
SAND DROPSEED	SPOROBOLUS CRYPTANDRUS	12%	3.6 LBS.
NEBRASKA SEDGE	CAREX NEBRASCENSIS	5%	1.5 LBS.
	TOTAL	100%	30.0 LBS.

North Buffer

Buffer Description	*Length (LF)*	*Trees Required*	*Proposed 50% Tree Reduction*	*Trees Provided*	*Shrubs Required*	*Shrubs Provided*	
Existing Commercial Bufferyard B (2 Trees per 80 LF)	1,491	38	19	19	0	#5 Cont Shrubs	0
						#1 Cont Grasses	0
Totals:	1,491	38	19	19	0	0	

West Buffer

Buffer Description	*Length (LF)*	*Trees Required*	*Proposed 50% Tree Reduction*	*Trees Provided*	*Shrubs Required*	*Shrubs Provided*	
Existing Agricultural Bufferyard D (3 Trees per 60 LF)	1,113	56	28	28	0	#5 Cont Shrubs	0
						#1 Cont Grasses	0
Totals:	1,113	56	28	28	0	0	

East Buffer

Buffer Description	*Length (LF)*	*Trees Required*	*Trees Provided*	*Shrubs Required*	*Shrubs Provided*	
Existing Agricultural Bufferyard D (3 Trees per 60 LF)	830	21	21	0	#5 Cont Shrubs	0
					#1 Cont Grasses	0
Totals:	830	21	21	0	0	

South Buffer

Buffer Description	*Length (LF)*	*Trees Required*	*Proposed 50% Tree Reduction*	*Trees Provided*	*Shrubs Required*	*Shrubs Provided*	
Street Frontage Buffer: 120TH AVE. (1 Tree and 5 Shrubs per 60 LF)	1,469	25	13	13	120	#5 Cont Shrubs	120
						#1 Cont Grasses	0
Existing Commercial Bufferyard B (2 Trees per 80 LF)	1,469	37	18	18	0	#5 Cont Shrubs	0
						#1 Cont Grasses	0
Totals:	2,938	62	31	31	120	120	

NOTES:

1.) Code minimum tree quanity requirements have been reduced by 50% across the site.

CHECKED BY: PH, MB
DRAWN BY: SLPQ

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P 303.892.1166
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120TH AVENUE RV STORAGE
10925 E. 120TH AVE.
ADAMS COUNTY, COLORADO

OWNER:
120 85 LLC
10925 E. 120TH AVE.
HENDERSON, COLORADO 80640
CONTACT TEL NUMBER

NOT FOR CONSTRUCTION

DATE:
01/16/2024 CUP-01
01/22/2024 CUP-01

SHEET TITLE:
LANDSCAPE SCHEDULES

LS-002

120TH AVENUE RV STORAGE

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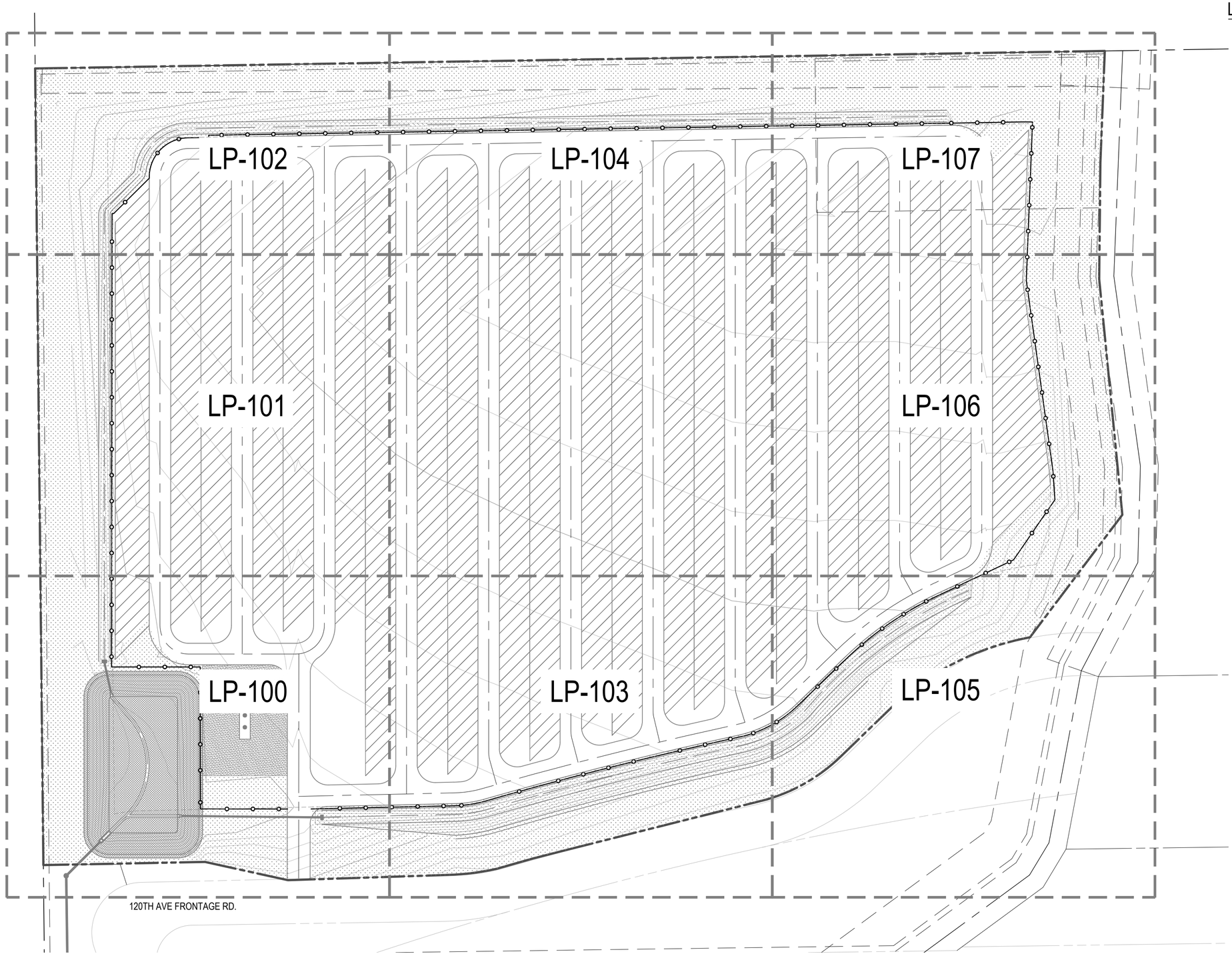
COUNTY OF ADAMS, STATE OF COLORADO



LEGEND

CODE	LANDSCAPE MATERIALS DESCRIPTION
M-101	NATIVE SEED
M-102	DETENTION SEED MIX
M-103	CRUSHER FINES

- PROPERTY LINE
- MATCHLINE
- EASEMENT
- FENCE
- PROPOSED TOPOGRAPHY

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ADAMS COUNTY, COLORADO

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NOT FOR CONSTRUCTION

DATE:
01/16/2024 CUP-01
01/22/2024 CUP-01

CHECKED BY: PH, MB
DRAWN BY: SLPO

811

SHEET TITLE:
OVERALL LANDSCAPE PLAN

LS-100

120TH AVENUE RV STORAGE

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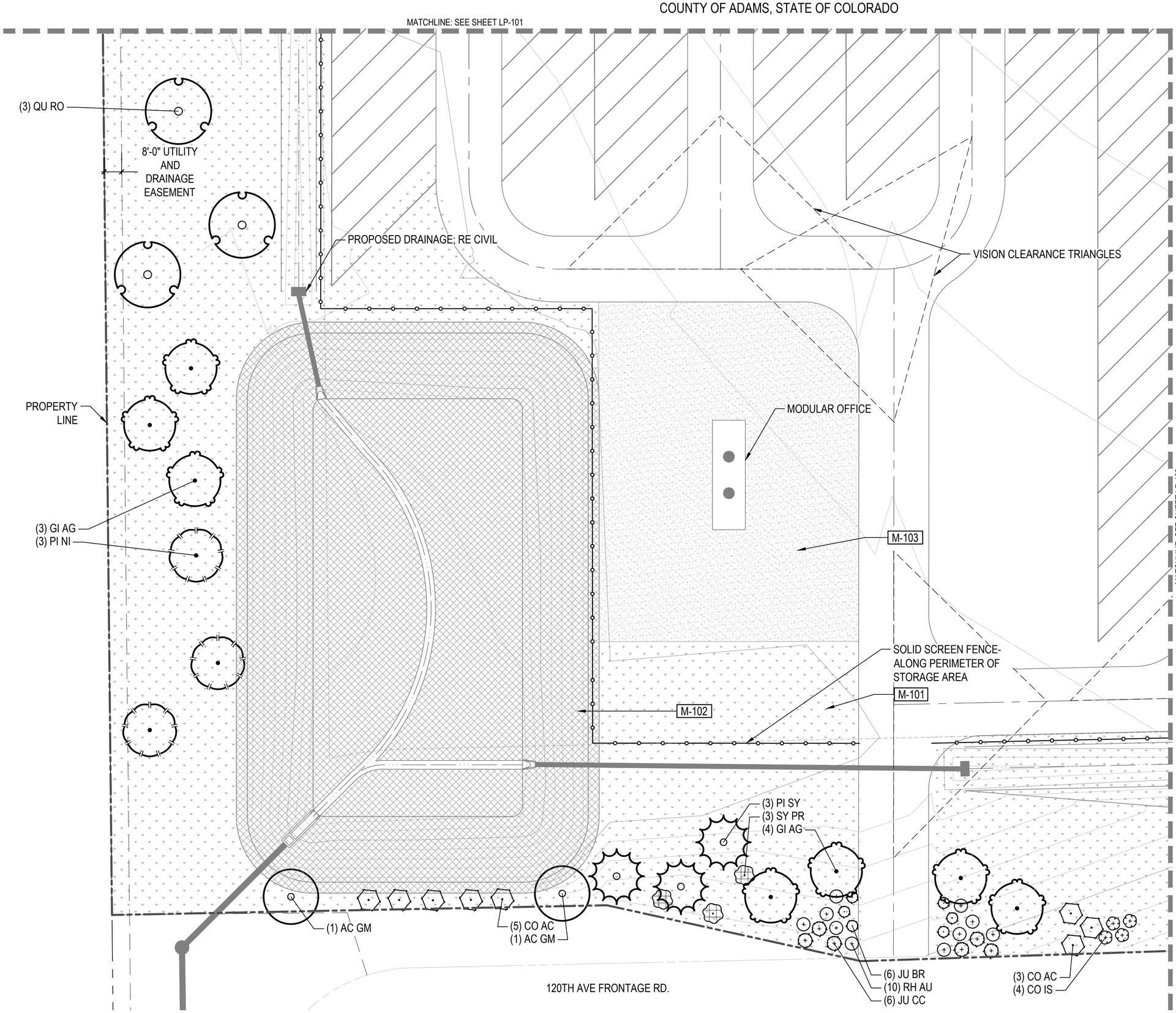

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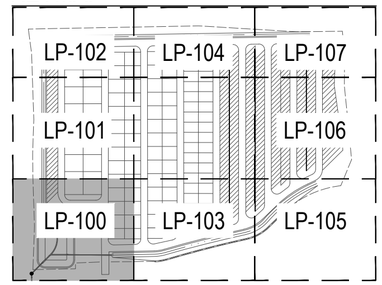

LEGEND

SYMBOL	CODE	COMMON NAME
DECIDUOUS CANOPY TREES		
	GI AG	AUTUMN GOLD GINKGO
	QU RO	ENGLISH OAK
	AC GM	GREEN MOUNTAIN SUGAR MAPLE
	CA SP	NORTHERN CATALPA
	GI PS	PRINCETON SENTRY GINKGO
	QU SH	SHUMARD RED OAK
EVERGREEN TREES		
	PI NI	AUSTRIAN BLACK PINE
	PI PU	COLORADO SPRUCE
	PI SY	SCOTCH PINE

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	PROPERTY LINE
	MATCHLINE
	EASEMENT
	FENCE
	PROPOSED TOPOGRAPHY

NORTH

0 15 30 60

SCALE 1" = 30'

811

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ADAMS COUNTY, COLORADO

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HENDERSON, COLORADO 80640
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DATE:
01/16/2024 CUP-01
01/22/2024 CUP-01

SHEET TITLE:
LANDSCAPE PLAN

LP-100

CHECKED BY: PH, MB
DRAWN BY: SLYO

120TH AVENUE RV STORAGE

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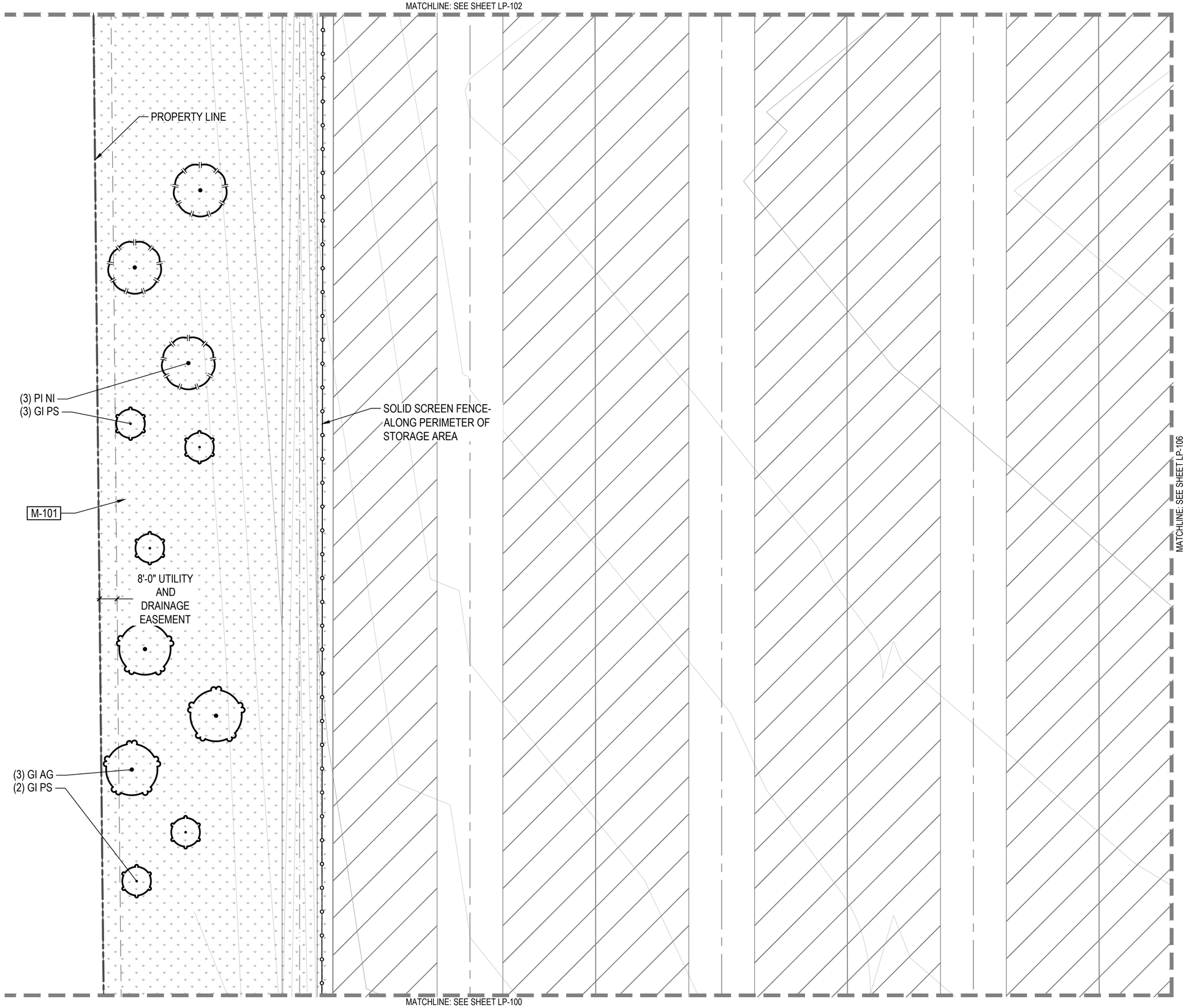

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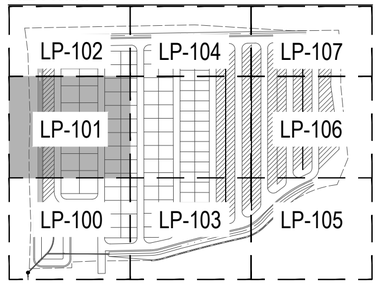

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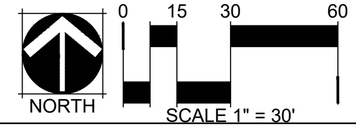

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120TH AVENUE RV STORAGE
10925 E. 120TH AVE.
ADAMS COUNTY, COLORADO

OWNER:
120 85 LLC

10925 E. 120TH AVE.
HENDERSON, COLORADO 80640
CONTACT TEL NUMBER

NOT FOR CONSTRUCTION

DATE:
01/16/2024 CUP-01
01/22/2024 CUP-01

SHEET TITLE:
LANDSCAPE PLAN

LP-101

CHECKED BY: PH, MB
DRAWN BY: SLPO

120TH AVENUE RV STORAGE

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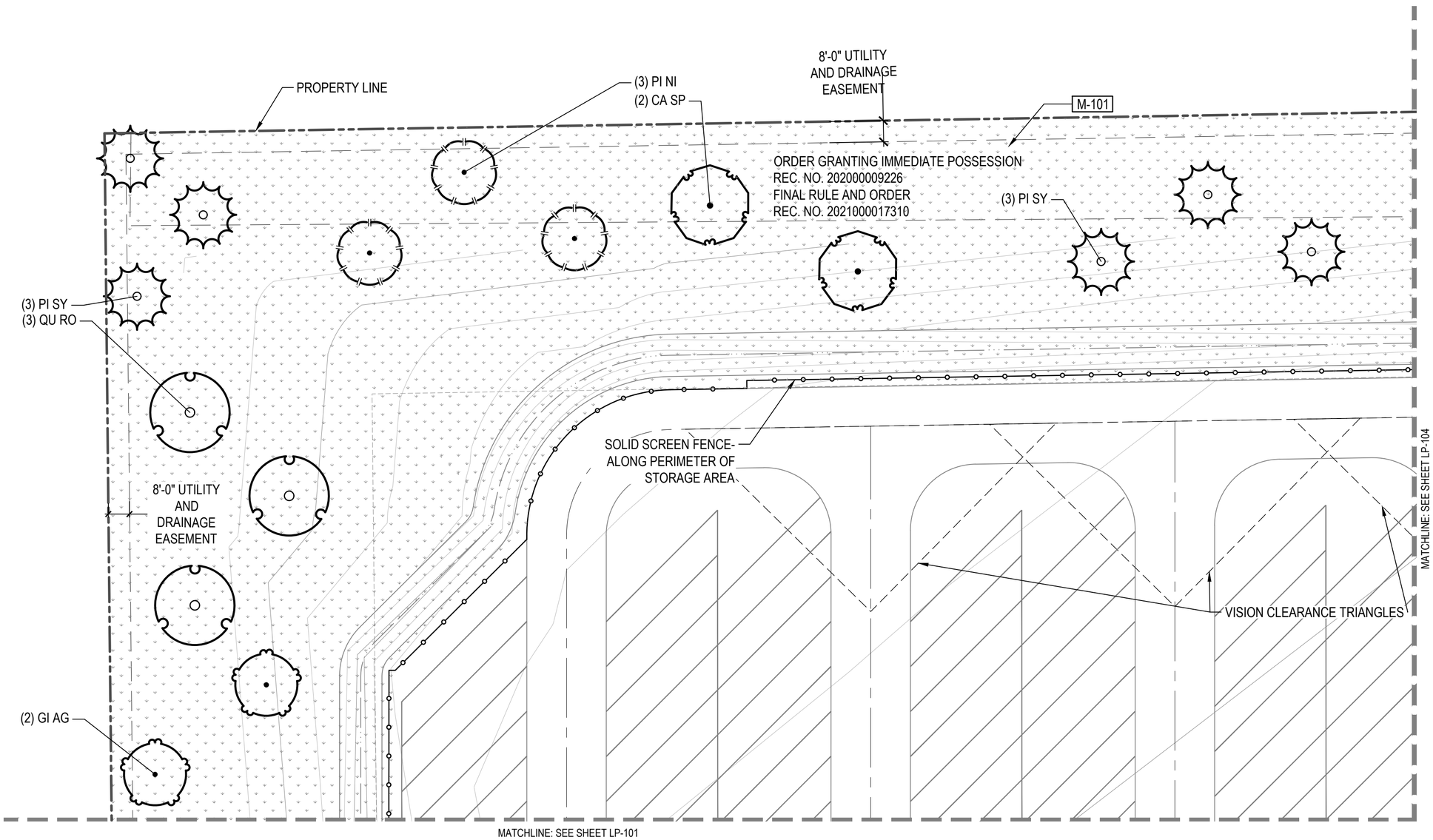

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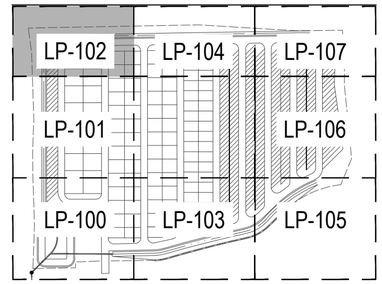

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	PI NI	AUSTRIAN BLACK PINE
	PI PU	COLORADO SPRUCE
	PI SY	SCOTCH PINE

CODE	LANDSCAPE MATERIALS DESCRIPTION
M-101	NATIVE SEED
M-102	DETENTION SEED MIX
M-103	CRUSHER FINES

PROPERTY LINE
MATCHLINE
EASEMENT
FENCE
PROPOSED TOPOGRAPHY

NORTH

0 15 30 60

SCALE 1" = 30'

811

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DENVER, CO 80204
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DATE:
01/16/2024 CUP-01
01/22/2024 CUP-01

SHEET TITLE:
LANDSCAPE PLAN

LP-102

CHECKED BY: PH, MB
DRAWN BY: SLPO

120TH AVENUE RV STORAGE

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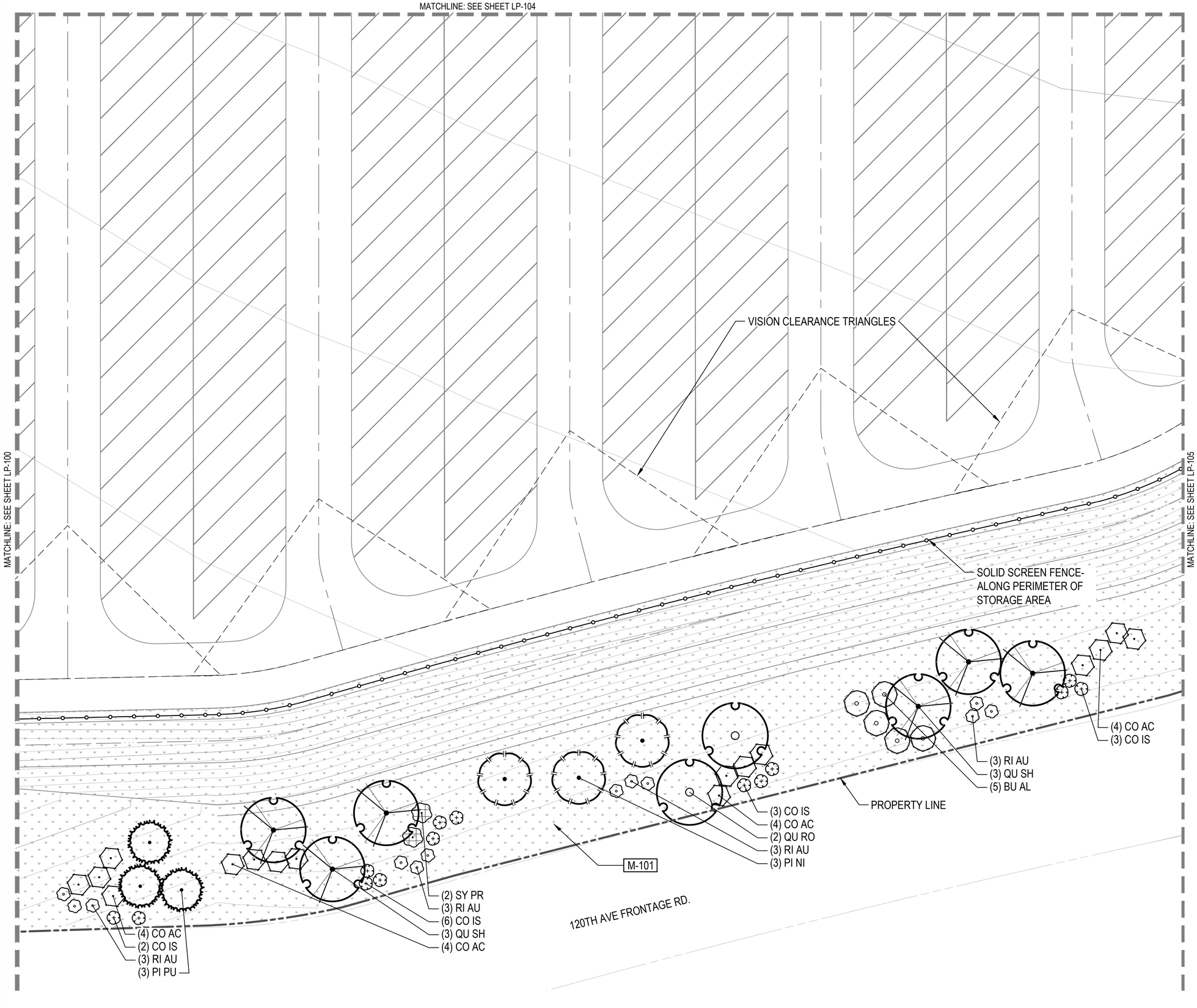

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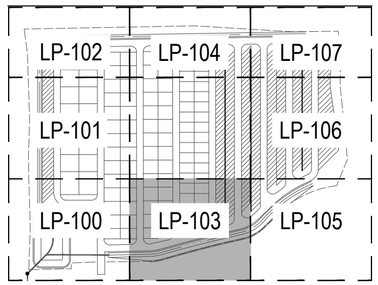

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	PROPERTY LINE
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	PROPOSED TOPOGRAPHY

NORTH

0 15 30 60

SCALE 1" = 30'

811

CHECKED BY: PH, MB
DRAWN BY: SLO

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DENVER, CO 80204
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ADAMS COUNTY, COLORADO

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SHEET TITLE:
LANDSCAPE PLAN

LP-103

120TH AVENUE RV STORAGE

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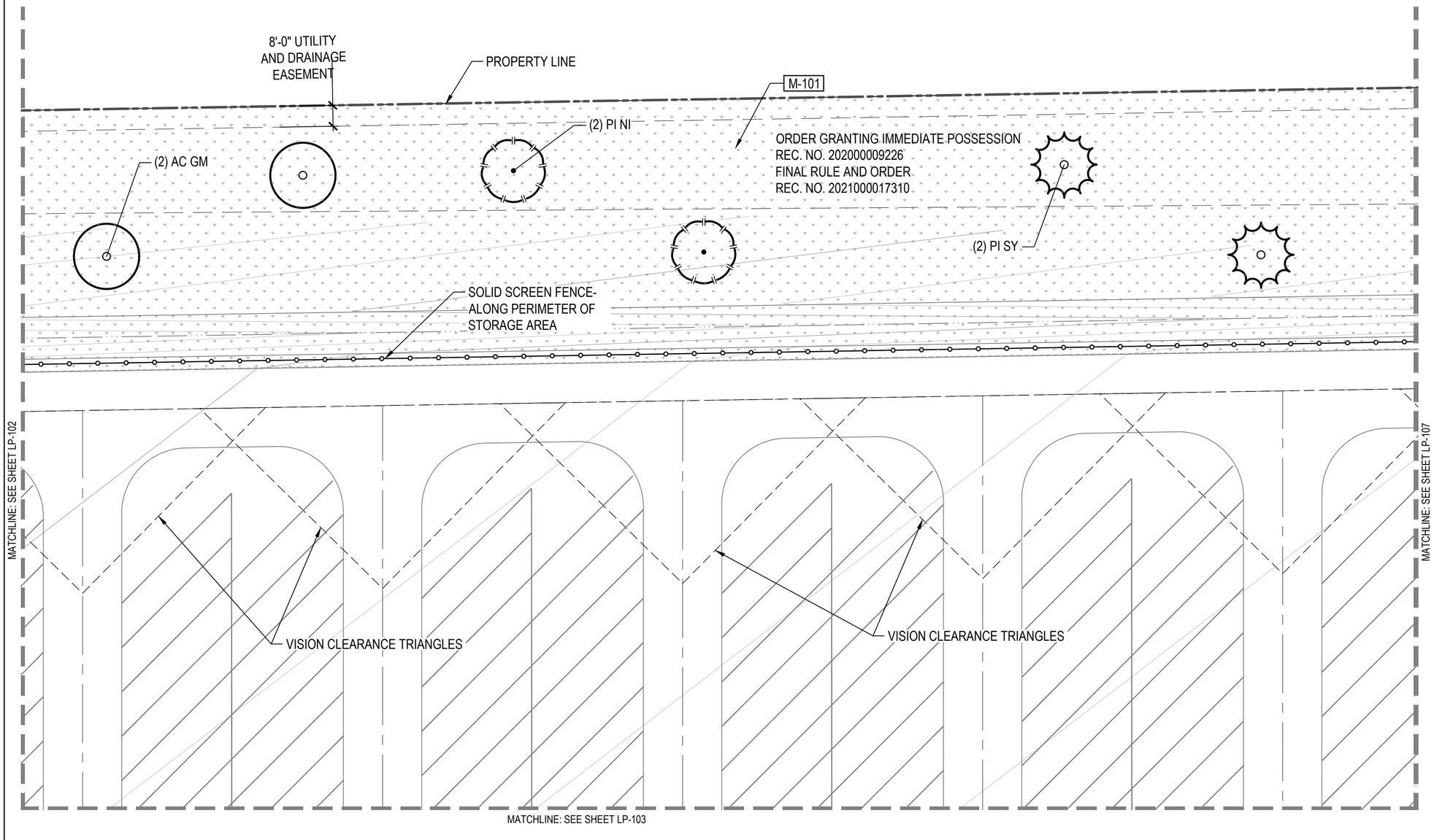

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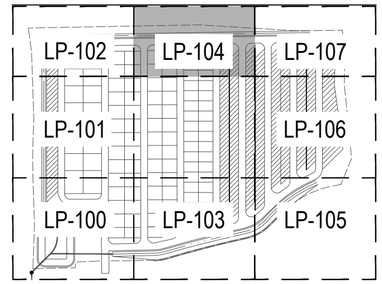

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SHEET TITLE:
LANDSCAPE PLAN

LP-104

CHECKED BY: PH, MB
DRAWN BY: SL, PO

120TH AVENUE RV STORAGE

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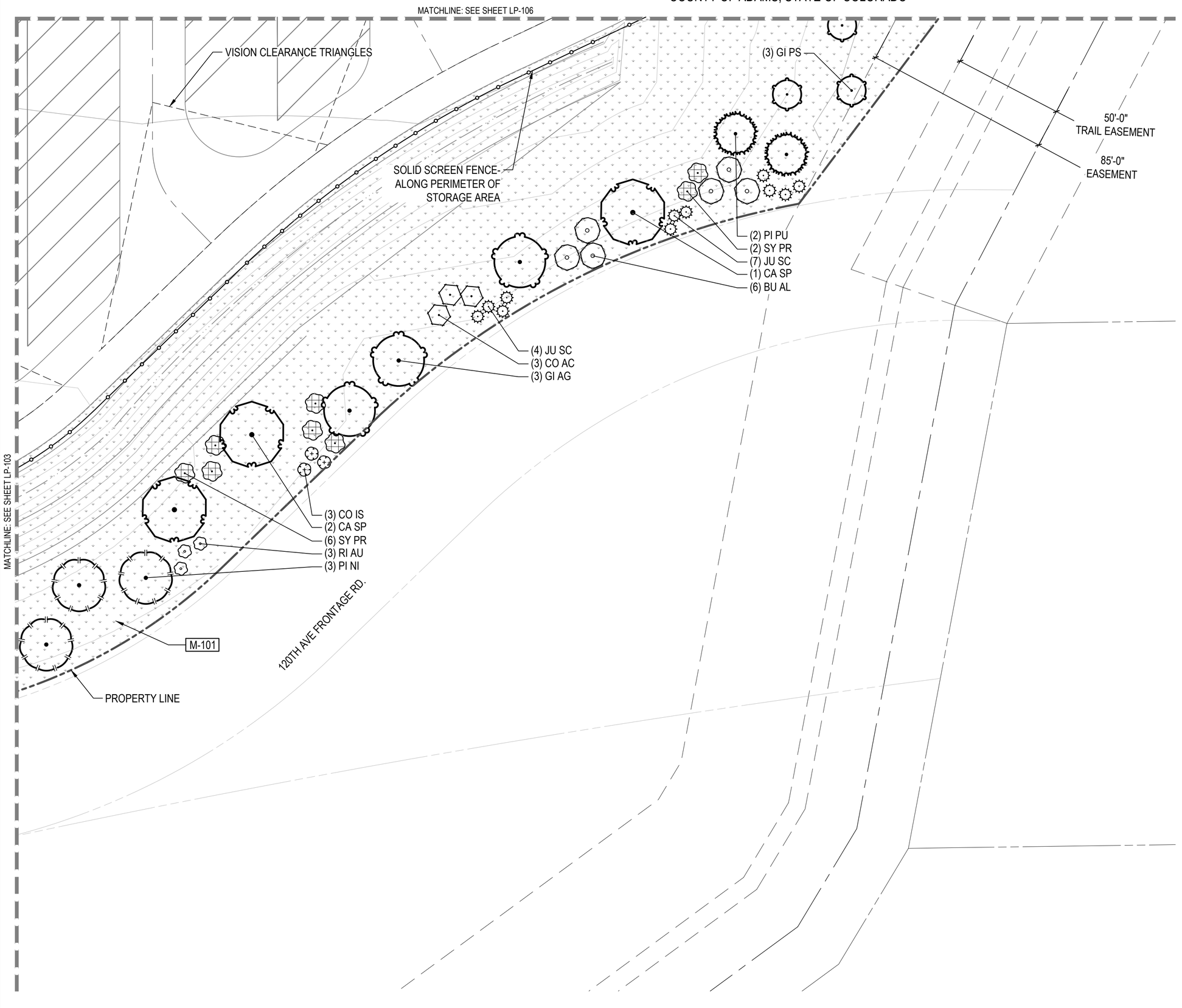

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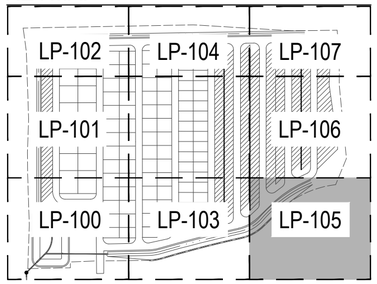

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PROPERTY LINE
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NORTH

0 15 30 60

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811

CHECKED BY: PH, MB
DRAWN BY: SLPO

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ADAMS COUNTY, COLORADO

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SHEET TITLE:
LANDSCAPE PLAN

LP-105

120TH AVENUE RV STORAGE

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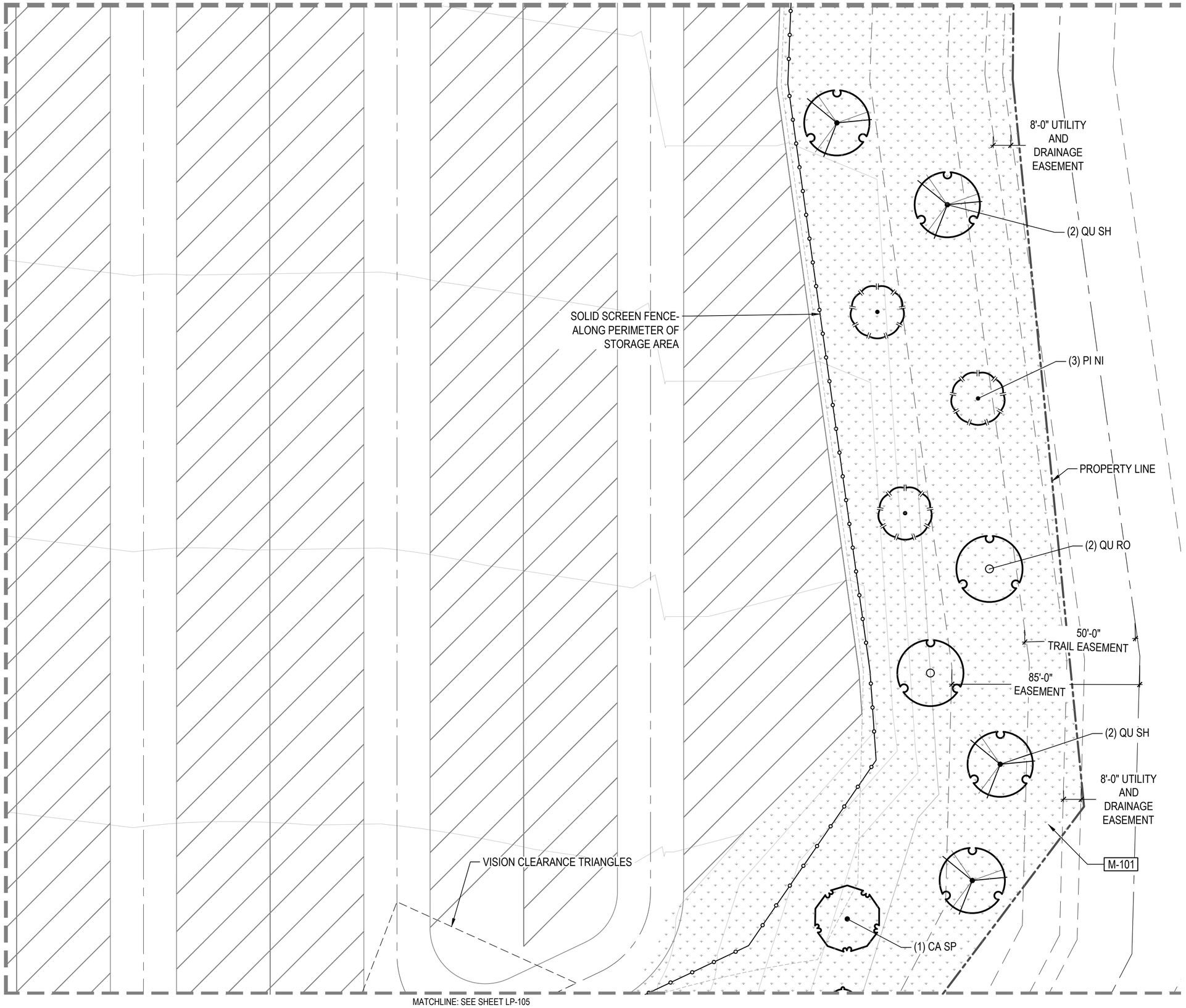

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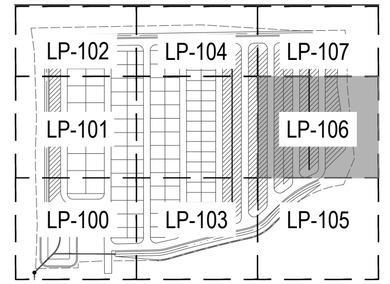

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	PI NI	AUSTRIAN BLACK PINE
	PI PU	COLORADO SPRUCE
	PI SY	SCOTCH PINE

CODE	LANDSCAPE MATERIALS DESCRIPTION
M-101	NATIVE SEED
M-102	DETENTION SEED MIX
M-103	CRUSHER FINES
	PROPERTY LINE
	MATCHLINE
	EASEMENT
	FENCE
	PROPOSED TOPOGRAPHY

NORTH

0 15 30 60

SCALE 1" = 30'

CHECKED BY: PH, MB
DRAWN BY: SL, PO

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 BANNOCK STREET
DENVER, CO 80204
P 303.892.1166
NORRIS-DESIGN.COM

120TH AVENUE RV STORAGE
10925 E. 120TH AVE.
ADAMS COUNTY, COLORADO

OWNER:
120 85 LLC
10925 E. 120TH AVE.
HENDERSON, COLORADO 80640
CONTACT TEL NUMBER

NOT FOR CONSTRUCTION

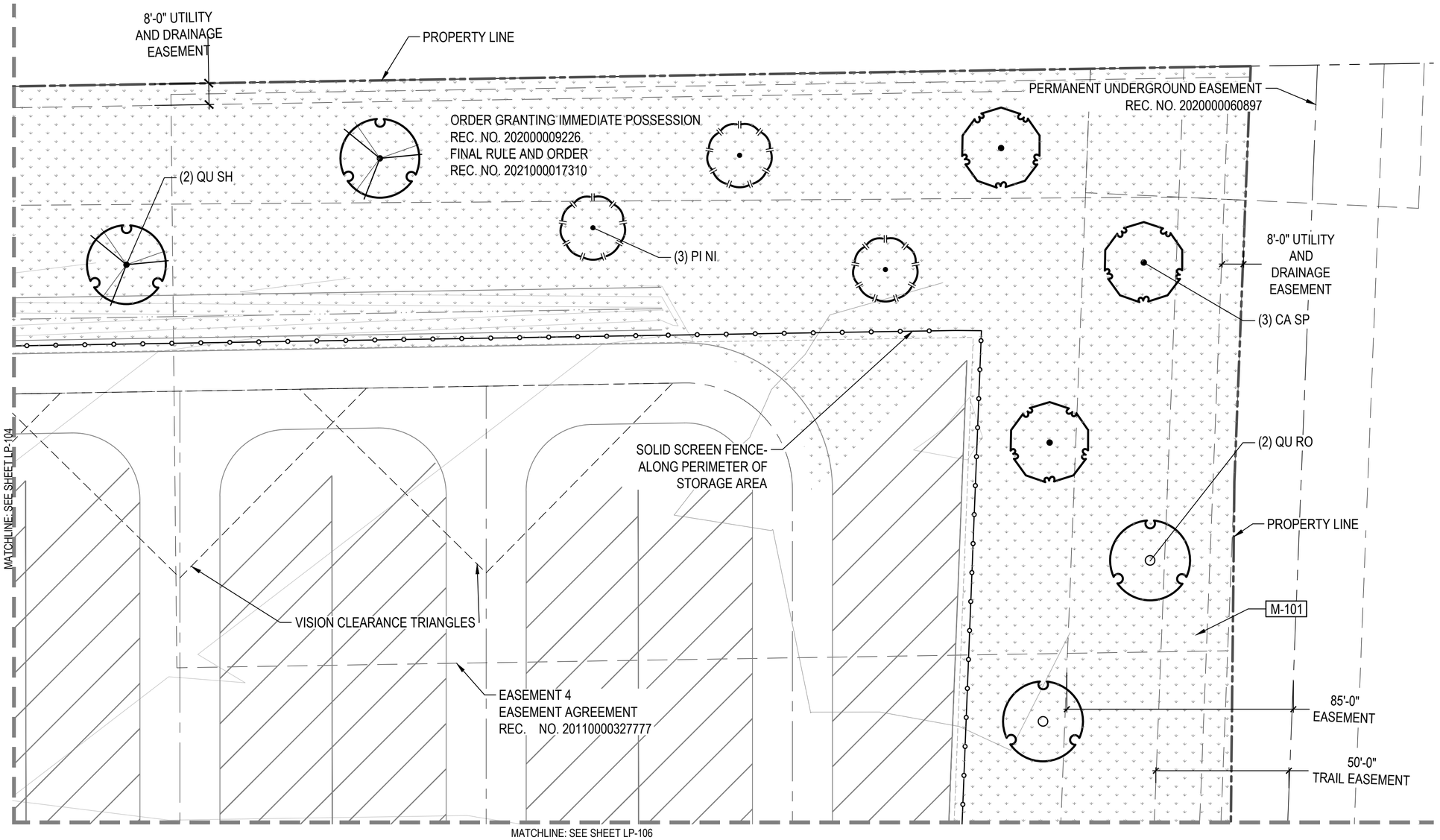
DATE:
01/16/2024 CUP-01
01/22/2024 CUP-01

SHEET TITLE:
LANDSCAPE PLAN

LP-106

120TH AVENUE RV STORAGE

LOT 1, CORRIGAN SUBDIVISION , EXCEPT ANY PORTION THEREOF LYING WITHIN THE FULTON DITCH,
AND EXCEPT THAT PORTION CONVEYED TO THE COUNTY OF ADAMS, STATE OF COLORADO BY WARRANTY DEED RECORDED AUGUST 6, 2003 AT RECEPTION NUMBER C1188505,
AND EXCEPT THAT PORTION CONVEYED TO THE COUNTY OF ADAMS, STATE OF COLORADO BY SPECIAL WARRANTY DEED RECORDED MAY 11, 2011 AT RECEPTION NO. 2011000030387,
COUNTY OF ADAMS, STATE OF COLORADO



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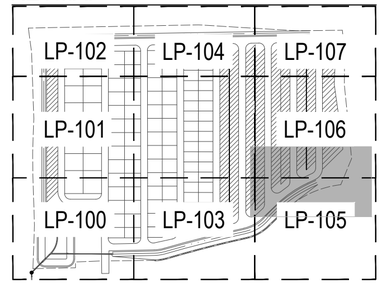

LEGEND

SYMBOL	CODE	COMMON NAME
DECIDUOUS CANOPY TREES		
	GI AG	AUTUMN GOLD GINKGO
	QU RO	ENGLISH OAK
	AC GM	GREEN MOUNTAIN SUGAR MAPLE
	CA SP	NORTHERN CATALPA
	GI PS	PRINCETON SENTRY GINKGO
	QU SH	SHUMARD RED OAK
EVERGREEN TREES		
	PI NI	AUSTRIAN BLACK PINE
	PI PU	COLORADO SPRUCE
	PI SY	SCOTCH PINE

CODE	LANDSCAPE MATERIALS DESCRIPTION
M-101	NATIVE SEED
M-102	DETENTION SEED MIX
M-103	CRUSHER FINES
	PROPERTY LINE
	MATCHLINE
	EASEMENT
	FENCE
	PROPOSED TOPOGRAPHY

NORTH

0 15 30 60

SCALE 1" = 30'

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DENVER, CO 80204
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120TH AVENUE RV STORAGE
10925 E. 120TH AVE.
ADAMS COUNTY, COLORADO

OWNER:
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HENDERSON, COLORADO 80640
CONTACT TEL NUMBER

NOT FOR CONSTRUCTION

DATE:
01/16/2024 CUP-01
01/22/2024 CUP-01

SHEET TITLE:
LANDSCAPE PLAN

LP-107

CHECKED BY: PH, MB
DRAWN BY: SLPO

120TH AVENUE RV STORAGE

LOT 1, CORRIGAN SUBDIVISION , EXCEPT ANY PORTION THEREOF LYING WITHIN THE FULTON DITCH,
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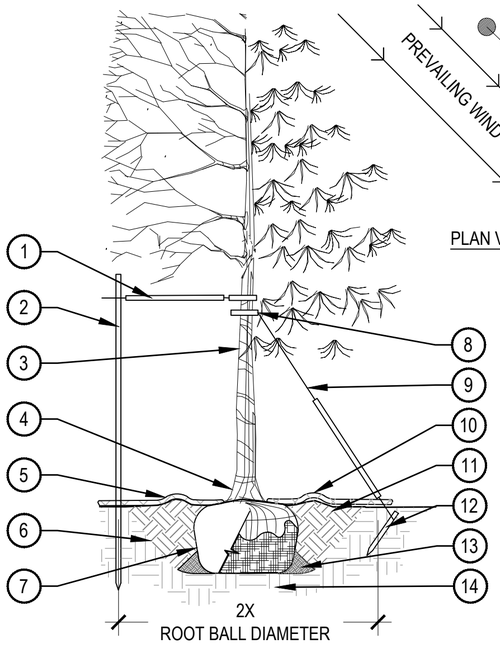
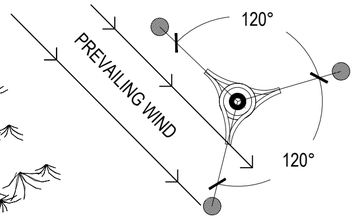
AND EXCEPT THAT PORTION CONVEYED TO THE COUNTY OF ADAMS, STATE OF COLORADO BY SPECIAL WARRANTY DEED RECORDED MAY 11, 2011 AT RECEPTION NO. 2011000030387,
COUNTY OF ADAMS, STATE OF COLORADO

PRUNING NOTES:
1. ALL PRUNING SHALL COMPLY WITH ANSI A300 STANDARDS.
2. DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS AND BROKEN BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED. HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

STAKING NOTES:
1. STAKE TREES PER FOLLOWING SCHEDULE, THEN REMOVE AT END OF FIRST GROWING SEASON.
   a. 1-1/2" CALIPER SIZE - MIN. 1 STAKE ON SIDE OF PREVAILING WIND (GENERALLY N.W. SIDE).
   b. 1-1/2" - 3" CALIPER SIZE - MIN. 2 STAKES - ONE ON N.W. SIDE, ONE ON S.W. SIDE (OR PREVAILING WIND SIDE AND 180° FROM THAT SIDE).
   c. 3" CALIPER SIZE AND LARGER - 3 STAKES PER DIAGRAM.
2. WIRE OR CABLE SHALL BE MIN. 12 GAUGE, TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. NYLON STRAPS SHALL BE LONG ENOUGH TO ACCOMMODATE 1-1/2" OF GROWTH AND BUFFER ALL BRANCHES FROM WIRE.



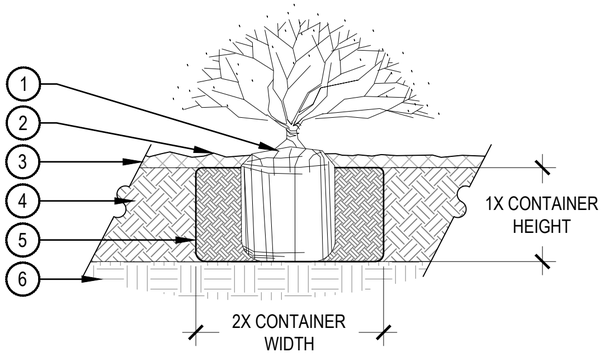


PLAN VIEW - THREE STAKES

1. PLACE MINIMUM 1/2" PVC PIPE AROUND EACH WIRE, EXPOSED WIRE SHALL BE MAXIMUM 2" EACH SIDE
2. 6'-0"UNTREATED WOOD POST, MINIMUM 1.5" DIAMETER, ALL SHALL BE DRIVEN OUTSIDE ROOTBALL AND IN UNDISTURBED SOIL
3. TREE WRAP TO BE INSTALLED ONLY FROM OCTOBER 1 THROUGH APRIL 30, DECIDUOUS ONLY, WRAP FROM BASE OF TRUNK TO BOTTOM LIMB
4. PLANT TREE SO THAT TOP MOST MAJOR ROOT IS 1"-2" ABOVE FINISHED GRADE
5. 2'-0" RADIUS MULCH RING, CENTERED ON TRUNK, 3" DEPTH, DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK, FINISHED GRADE REFERENCES TOP OF MULCH
6. 1:1 SLOPE ON SIDES OF PLANTING HOLE
7. ROPES AT TOP OF ROOTBALL SHALL BE CUT, REMOVE TOP 1/3 OF BURLAP, NON-BIODEGRADABLE MATERIAL SHALL BE TOTALLY REMOVED
8. GROMMETED NYLON STRAPS
9. GALVANIZED WIRE, MINIMUM 12 GAUGE CABLE,TWIST WIRE ONLY TO KEEP FROM SLIPPING
10. 4-6" HIGH WATER SAUCER IN NON-TURF AREAS
11. BACKFILL WITH BLEND OF EXISTING SOIL AND A MAXIMUM 20%, BY VOLUME, ORGANIC MATERIAL, WATER THOROUGHLY WHEN BACKFILLING
12. 2'-0" STEEL T-POST, ALL SHALL BE DRIVEN BELOW GRADE AND OUTSIDE ROOTBALL IN UNDISTURBED SOIL
13. PLACE SOIL AROUND ROOT BALL FIRMLY, DO NOT COMPACT OR TAMP, SETTLE SOIL WITH WATER TO FILL ALL AIR POCKETS
14. PLACE ROOT BALL ON UNDISTURBED SOIL TO PREVENT SETTLEMENT

1 TREE PLANTING DETAIL

SCALE: 3/16" = 1'-0"



1. SET SHRUB ROOT-BALL 1" HIGHER THAN FINISH GRADE
2. FINISH GRADE (TOP OF MULCH)
3. SPECIFIED MULCH, REFER TO MATERIAL SCHEDULE, SHEET L-XXX
4. TILL IN SPECIFIED SOIL AMENDMENT TO A DEPTH OF 8" IN BED
5. BACKFILLED AMENDED SOIL
6. UNDISTURBED SOIL

NOTE:
1. BROKEN OR CRUMBLING ROOT-BALLS WILL BE REJECTED.
2. CARE SHOULD BE TAKEN NOT TO DAMAGE THE SHRUB OR ROOT-BALL WHEN REMOVING IT FROM ITS CONTAINER.
3. ALL JUNIPERS SHOULD BE PLANTED SO THE TOP OF THE ROOT-BALL OCCURS ABOVE THE FINISH GRADE OF THE MULCH LAYER.
4. DIG PLANT PIT TWICE AS WIDE AND AS HIGH AS THE CONTAINER.
5. PRUNE ALL DEAD OR DAMAGED WOOD PRIOR TO PLANTING, DO NOT PRUNE MORE THAN 20% OF LIMBS.

2 SHRUB PLANTING

SCALE: 1 1/2" = 1'-0"

CHECKED BY: PH, MB
DRAWN BY: SLYO

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 BANNOCK STREET
DENVER, CO 80204
P 303.892.1166
NORRIS-DESIGN.COM

120TH AVENUE RV STORAGE
10925 E. 120TH AVE.
ADAMS COUNTY, COLORADO

OWNER:
120 85 LLC
10925 E. 120TH AVE.
HENDERSON, COLORADO 80640
CONTACT TEL NUMBER

NOT FOR CONSTRUCTION

DATE:
01/16/2024 CUP-01
01/22/2024 CUP-01

SHEET TITLE:
LANDSCAPE DETAILS

LP-501

LSC TRANSPORTATION CONSULTANTS, INC.

1889 York Street
Denver, CO 80206
(303) 333-1105
FAX (303) 333-1107
E-mail: lsc@lscdenver.com

January 22, 2024

Ms. DeDe Carlson
Carlson Land
PO Box 247
Eastlake, CO 80614

Re: 10925 120th RV & Boat Storage
Adams County, CO
LSC #230270

Dear Ms. Carlson:

In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact analysis for the proposed 10925 120th RV & Boat Storage development. As shown on Figure 1, the site is located north of E. 120th Parkway, east of Brighton Road, and west of US 85 in Adams County, Colorado.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate growth in background traffic or the impact of the site.

LAND USE AND ACCESS

The site is proposed to include about 14.89 acres of RV/Boat Storage with existing access to E. 120th Avenue and to E. 120th Parkway. Figure 2 shows the conceptual site plan.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **E. 120th Parkway** is an east-west, four-lane major arterial roadway south of the site. The intersections with Brighton Road and US 85 are signalized with auxiliary turn lanes. The posted speed limit in the vicinity of the site 45 mph.

- **E. 120th Avenue** is an east-west, two-lane local roadway south of the site. The intersections with Brighton Road and E. 120th Parkway are stop-sign controlled. The posted speed limit in the vicinity of the site is 35 mph.

- **Brighton Road** is a north-south, two-lane collector roadway west of the site. The intersection with E. 120th Parkway is signalized and the intersection with E. 120th Avenue is stop-sign controlled.

Existing Traffic Conditions

Figure 3 shows the existing lane geometries, traffic controls, posted speed limits, and traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic and daily traffic volumes are from the attached traffic counts conducted by Counter Measures, Inc. in April, 2023.

2025 and 2043 Background Traffic

Figure 4 shows the estimated 2025 background traffic and Figure 5 shows the estimated 2043 background traffic based on an annual growth rate of three percent to maintain a conservative analysis. Figures 4 and 5 also show the estimated lane geometry and traffic control.

Existing, 2025, and 2043 Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for signalized and unsignalized intersections.

The intersections in the study area were analyzed to determine the existing, 2025, and 2043 background levels of service using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

1. **W. 120th Parkway/Brighton Road:** This signalized intersection currently operates at an overall LOS "B" during both morning and afternoon peak-hours and is expected to do so through 2025. By 2043, the morning peak-hour is expected to operate at LOS "C" and the afternoon peak-hour is expected to operate at LOS "D".

2. **E. 120th Avenue/Brighton Road:** All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2043.

3. **E. 120th Avenue/E. 120th Parkway:** All movements at this unsignalized intersection currently operate at LOS "D" or better during both morning and afternoon peak-hours and are expected to do so through 2043 with the following exceptions: The southbound approach is expected to operate at LOS "E" in the 2025 afternoon peak-hour. The northbound and southbound approaches are expected to operate at LOS "F" during both peak-hours in 2043. The side road volumes are very low so a traffic signal warrant is not expected to be met.

4. **US 85/E. 120th Parkway:** This signalized intersection currently operates at an overall LOS "C" during the morning peak-hour and LOS "D" during the afternoon peak-hour and is expected to do so through 2025. By 2043, the morning peak-hour is expected to operate at LOS "E" and the afternoon peak-hour is expected to operate at LOS "F" even with the addition of the improvements shown in Figure 5.

TRIP GENERATION

Table 2 shows the estimated peak and typical summer weekday, morning peak-hour, and afternoon peak-hour trip generation for the site.

The proposed use on the site is projected to generate about 399 one-way vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 24 vehicles would enter and about 24 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:30 p.m., about 24 vehicles would enter and about 24 vehicles would exit the site.

The trip generation will be considerably lower during the winter and shoulder seasons when boat and RV use is not in high demand.

TRIP DISTRIBUTION

Figure 6 shows the estimated directional distribution of the site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site's proposed land use.

TRIP ASSIGNMENT

Figure 7 shows the estimated site-generated traffic volumes based on the directional distribution percentages (from Figure 6) and the trip generation estimate (from Table 2).

2025 AND 2043 TOTAL TRAFFIC

Figure 8 shows the 2025 total traffic which is the sum of the 2025 background traffic volumes (from Figure 4) and the site-generated traffic volumes (from Figure 7). Figure 8 also shows the recommended 2025 lane geometry and traffic control.

Figure 9 shows the 2043 total traffic which is the sum of the 2043 background traffic volumes (from Figure 5) and the site-generated traffic volumes (from Figure 7). Figure 9 also shows the recommended 2043 lane geometry and traffic control.

PROJECTED LEVELS OF SERVICE

The intersections in the study area were analyzed to determine the 2025 and 2043 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

1. **W. 120th Parkway/Brighton Road:** This signalized intersection is expected to operate at an overall LOS "B" during both morning and afternoon peak-hours through 2025. By 2043, the morning peak-hour is expected to operate at LOS "C" and the afternoon peak-hour is expected to operate at LOS "D".

2. **E. 120th Avenue/Brighton Road:** All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2043.

3. **E. 120th Avenue/E. 120th Parkway:** All movements at this unsignalized intersection are expected to operate at LOS "D" or better during both morning and afternoon peak-hours through 2043 with the following exceptions: The northbound and southbound approaches are expected to operate at LOS "F" during both peak-hours in 2043. The side road volumes are very low so a traffic signal warrant is not expected to be met.

4. **US 85/E. 120th Parkway:** This signalized intersection is expected to operate at an overall LOS "D" or better during both morning and afternoon peak-hours through 2025. By 2043, the morning peak-hour is expected to operate at LOS "E" and the afternoon peak-hour is expected to operate at LOS "F" even with the improvements by others shown in Figure 9.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

1. The proposed use on the site is projected to generate about 399 one-way vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak-hour, about 24 vehicles would enter and about 24 vehicles would exit the site. During the afternoon peak-hour, about 24 vehicles would enter and about 24 vehicles would exit the site.

2. The trip generation will be considerably lower during the winter and shoulder seasons when boat and RV use is not in high demand.

Projected Levels of Service

3. The signalized E. 120th Parkway/Brighton Road intersection is expected to operate at LOS "D" or better during both peak-hours through 2043 with or without development of the site.

4. The signalized US 85/E. 120th Parkway intersection is expected to operate at LOS "D" during both peak-hours through 2025. By 2043, the morning peak-hour is expected to operate at LOS "E" and the afternoon peak-hour is expected to operate at LOS "F" with or without development of the site.

5. All movements at the unsignalized intersections analyzed are expected to operate at LOS "D" or better through 2043 with the following exceptions: The northbound and southbound approaches at the E. 120th Avenue/E. 120th Parkway intersection are expected to operate at LOS "F" during both peak-hours with or without development of the site. The side road volumes are very low so a traffic signal warrant is not expected to be met.

Conclusions

6. The impact of the proposed 10925 120th RV& Boat Storage development can be accommodated by the existing and proposed roadway network with the following recommendations.

Recommendations

7. The recommended improvements are shown in Figures 8 and 9. The intersection of US 85/ E. 120th Parkway will need considerable improvements by others by 2043 to maintain acceptable levels of service.

* * * * *

We trust our findings will assist you in gaining approval of the proposed 10925 120th RV& Boat Storage development. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By _____
Christopher S. McGranahan, PE
Principal/President

CSM/wc 1-22-24

Enclosures: Tables 1 and 2
Figures 1 - 9
Traffic Count Reports
Level of Service Definitions
Level of Service Reports

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Table 1
Intersection Levels of Service Analysis
10925 120th RV & Boat Storage
Adams County, CO
LSC #230270; January, 2024

Intersection Location	Traffic Control	Existing		2025 Background		2025 Total Traffic		2043 Background		2043 Total Traffic	
		Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM
1) E. 120th Parkway/Brighton Road	Signalized										
EB Left		A	B	A	B	A	B	B	D	B	D
EB Through		A	A	A	A	A	A	B	C	B	C
EB Right		A	A	A	A	A	A	B	B	B	B
WB Left		A	A	A	A	A	A	B	B	B	B
WB Through		A	A	A	A	A	A	B	D	B	D
WB Right		A	A	A	A	A	A	B	B	B	B
NB Left		E	D	D	D	D	D	D	E	D	E
NB Through/Right		D	D	D	D	D	D	D	D	D	D
SB Left		D	D	D	D	D	D	D	D	D	D
SB Through/Right		D	D	D	D	D	D	E	E	E	E
Entire Intersection Delay (sec /veh)		12.3	14.2	12.5	14.8	12.7	14.9	22.8	38.7	23.0	40.0
Entire Intersection LOS		B	B	B	B	B	B	C	D	C	D
2) E. 120th Avenue/Brighton Road	TWSC										
NB Left		--	--	A	A	A	A	A	A	A	A
EB Approach		--	--	A	A	A	A	B	B	B	B
WB Approach		--	--	B	B	B	B	B	B	B	B
SB Left		--	--	A	A	A	A	A	A	A	A
Critical Movement Delay		--	--	10.0	10.6	10.2	10.8	10.8	12.0	11.2	12.3
3) E. 120th Avenue/E. 120th Parkway	TWSC										
NB Approach		C	B	C	C	C	C	F	F	F	F
EB Left		A	B	A	B	A	B	B	C	B	C
WB Left		A	A	A	A	A	A	B	B	B	B
SB Approach		C	D	C	E	C	D	F	F	F	F
Critical Movement Delay		21.9	32.7	24.8	40.2	20.6	33.6	103.3	>240	84.5	>240
4) US 85/E. 120th Parkway	Signalized										
EB Left		D	C	D	C	D	C	F	F	F	F
EB Through		D	D	D	E	D	E	D	F	D	F
EB Right		A	A	A	A	A	A	A	A	A	A
WB Left		C	C	C	C	C	C	D	D	D	D
WB Through		D	D	D	D	D	D	F	F	F	F
WB Right		A	A	A	A	A	A	A	A	A	A
NB Left		B	D	C	E	C	E	E	F	E	F
NB Through		C	D	C	D	C	D	D	F	D	F
NB Right		C	C	C	C	C	C	C	C	C	C
SB Left		B	C	C	D	C	D	E	F	E	F
SB Through		C	D	C	D	C	D	F	F	F	F
SB Right		C	D	C	E	C	E	C	E	C	E
Entire Intersection Delay (sec /veh)		32.2	42.7	33.4	51.0	34.1	51.6	72.7	122.4	73.6	123.8
Entire Intersection LOS		C	D	C	D	C	D	E	F	E	F

Table 2
ESTIMATED TRAFFIC GENERATION
10925 120th RV & Boat Storage
Adams County, CO
LSC #230270; January, 2024

		Trip Generation Rates					Total Vehicle-Trips Generated				
		Average	AM Peak-Hour		PM Peak-Hour		Average	AM Peak-Hour		PM Peak-Hour	
Trip Generating Category	Quantity	Weekday	In	Out	In	Out	Weekday	In	Out	In	Out
Currently Proposed Land Use											
RV/Boat Storage (1)	14.89 Acres	26.786	1.607	1.607	1.607	1.607	399	24	24	24	24

Notes:
(1) Based on traffic counts at an existing facility located on the west end of Atlantic Place to the southwest of the E-470/E. Jewell Avenue interchange.

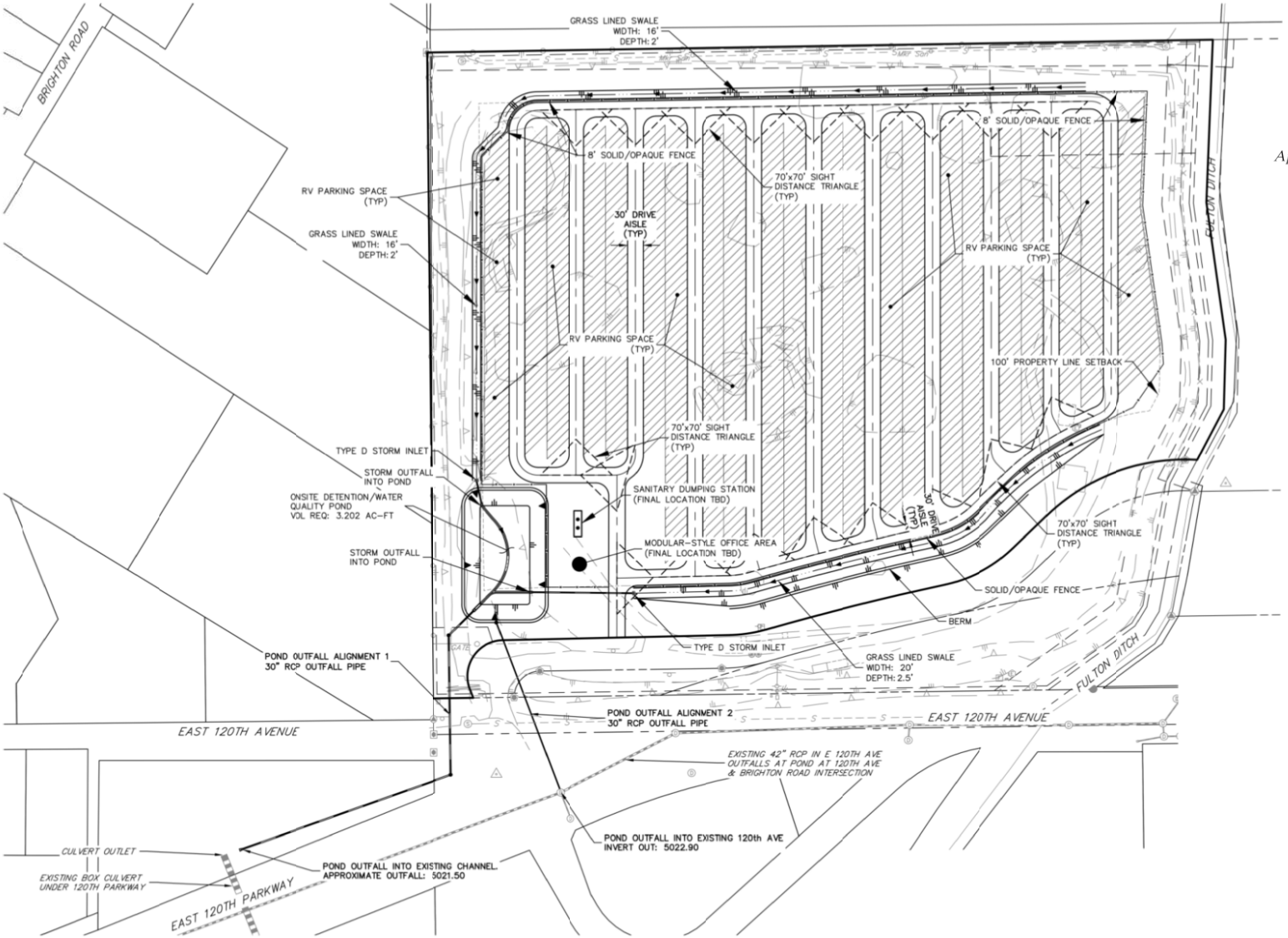
Approximate Scale
Scale: 1"=1,200'

Figure 1

Vicinity Map

10925 120th RV & Boat Storage (LSC #230270)

LSC TRANSPORTATION CONSULTANTS, INC.

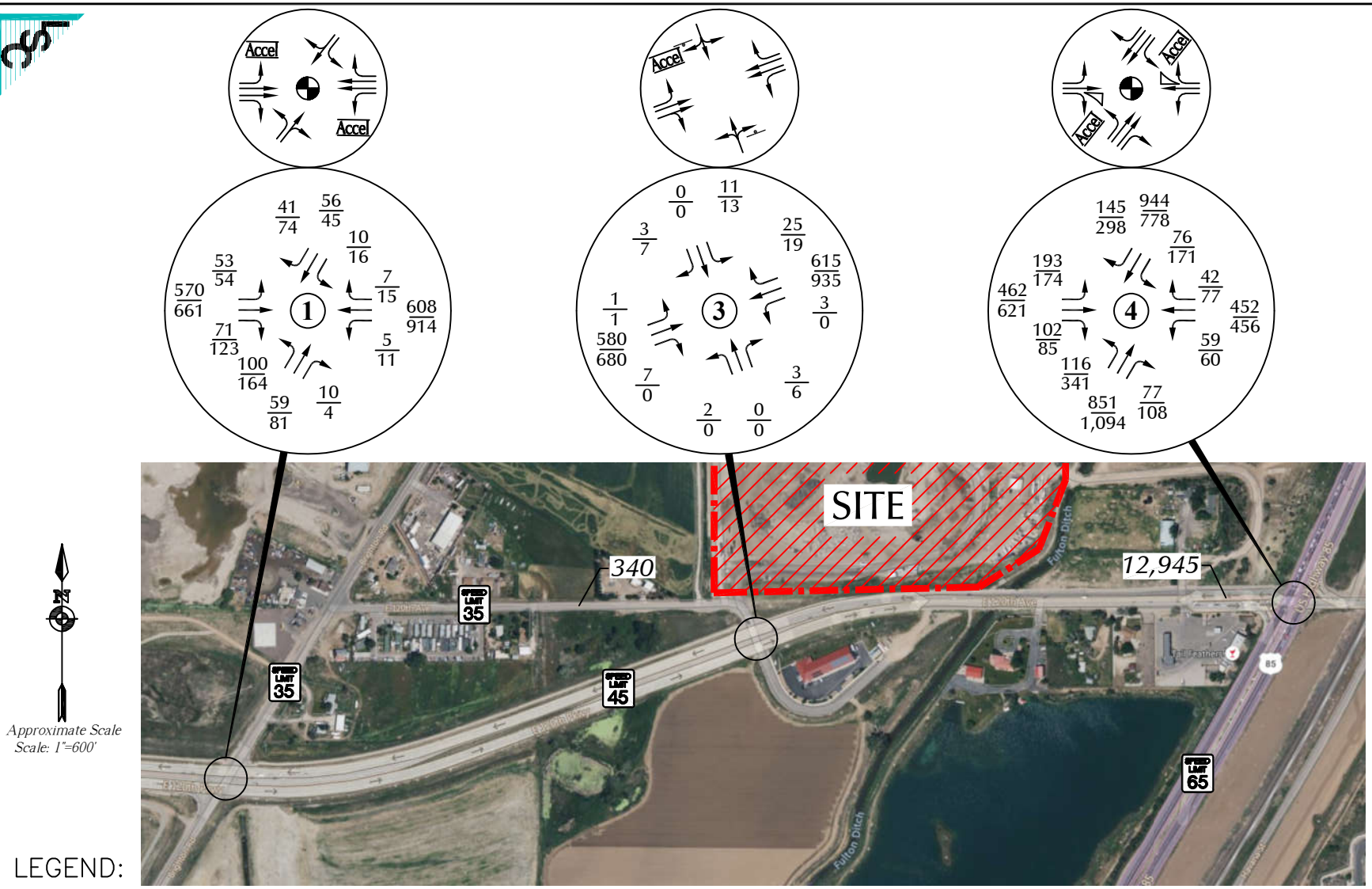


Approximate Scale
Scale: NTS

Figure 2

Site Plan

10925 120th RV & Boat Storage (LSC #230270)



Approximate Scale
Scale: 1"=600'

LEGEND:

= Stop Sign

= Traffic Signal

= Speed Limit

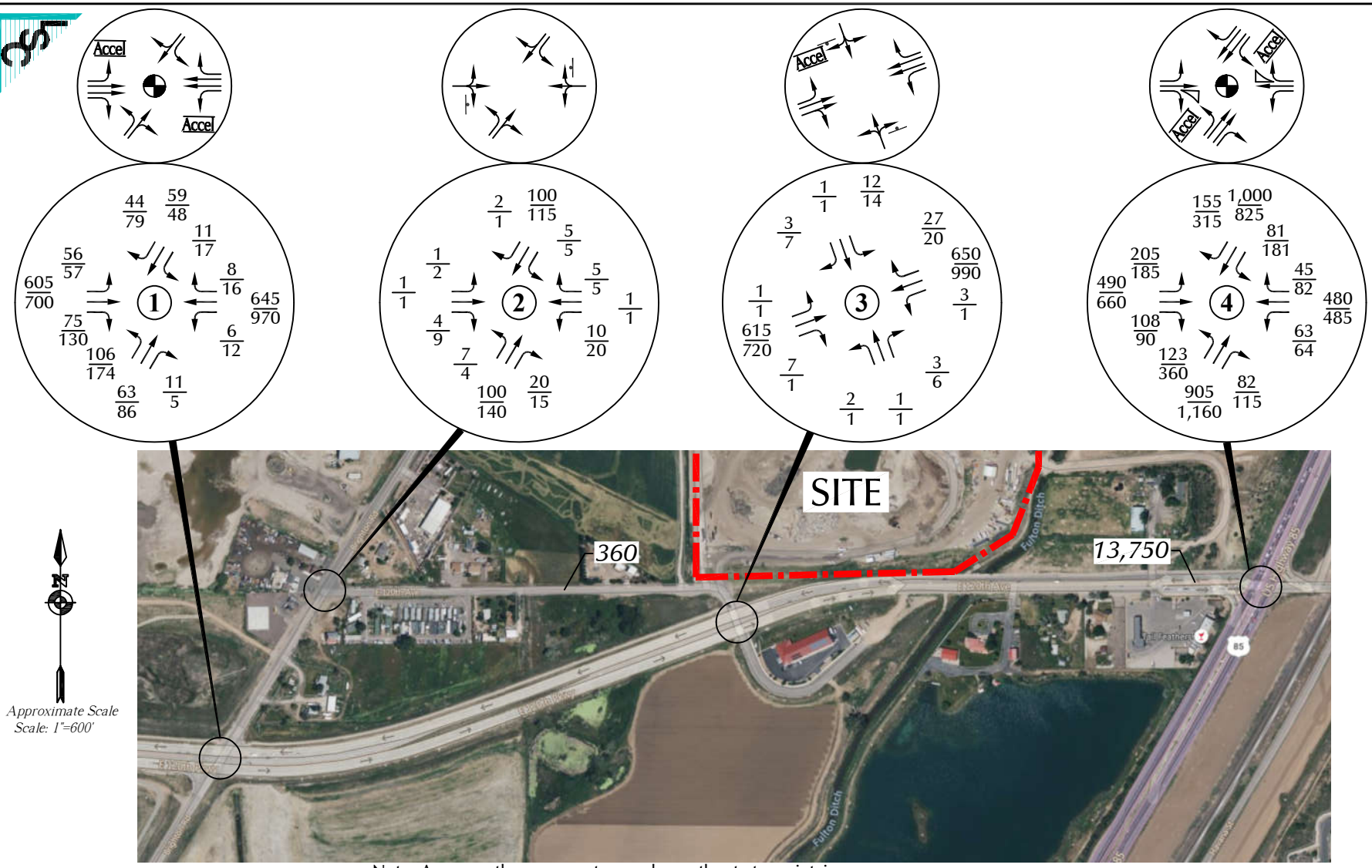
$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

1,000 = Average Daily Traffic

Figure 3

Existing Traffic, Lane Geometry and Traffic Control

10925 120th RV & Boat Storage (LSC #230270)



Approximate Scale
Scale: 1"=600'

LEGEND:

= Stop Sign

= Traffic Signal

$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

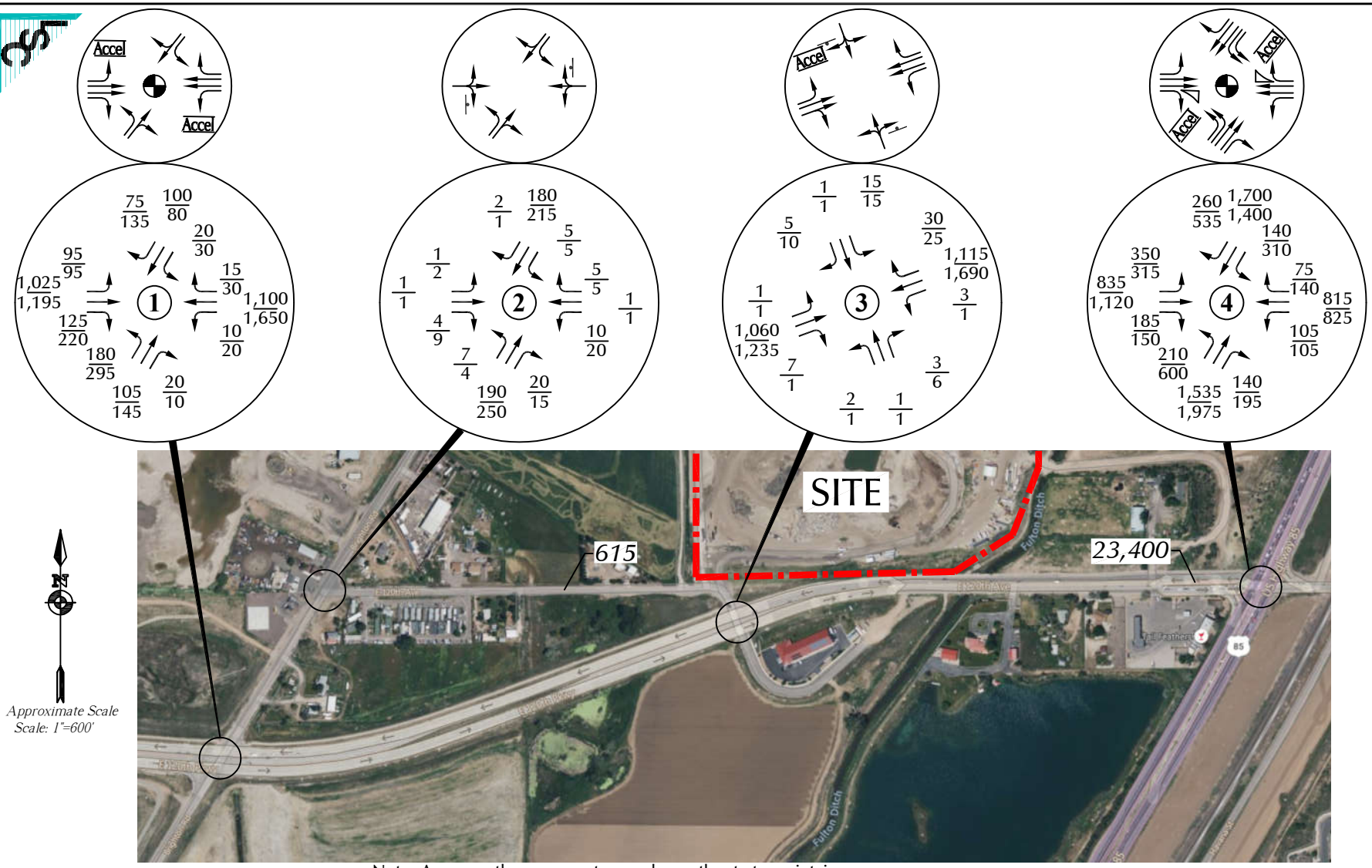
1,000 = Average Daily Traffic

Note: Assumes three percent annual growth rate to maintain a conservative analysis.

Figure 4

Year 2025 Background Traffic, Lane Geometry and Traffic Control

10925 120th RV & Boat Storage (LSC #230270)



Approximate Scale
Scale: 1"=600'

LEGEND:

= Stop Sign

= Traffic Signal

$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

1,000 = Average Daily Traffic

Note: Assumes three percent annual growth rate to maintain a conservative analysis.

Figure 5

Year 2043 Background Traffic, Lane Geometry and Traffic Control

10925 120th RV & Boat Storage (LSC #230270)

Approximate Scale
Scale: 1"=1,200'

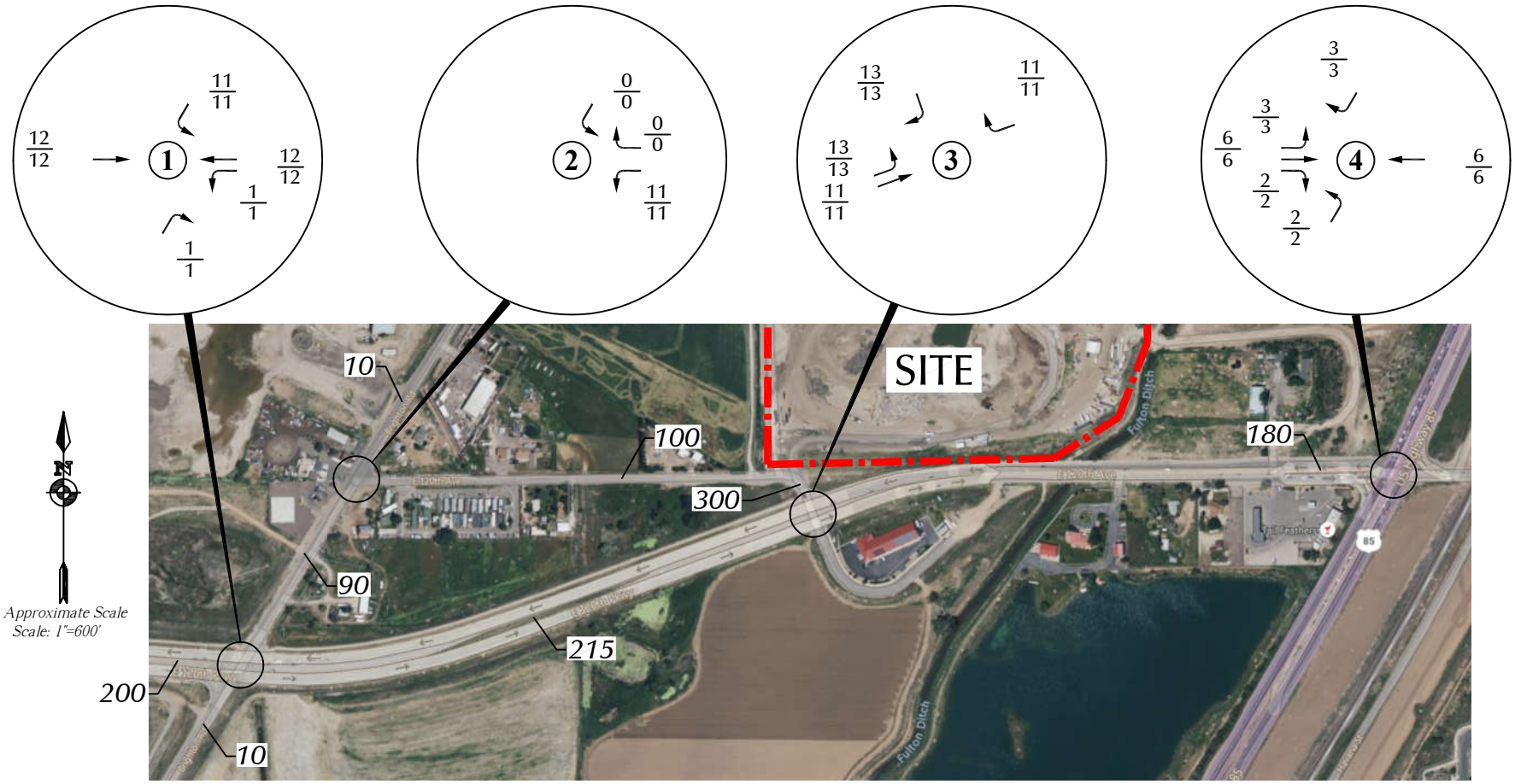
LEGEND:

65% = Percent Directional Distribution

Figure 6

Directional Distribution of Site-Generated Traffic

10925 120th RV & Boat Storage (LSC #230270)



LEGEND:

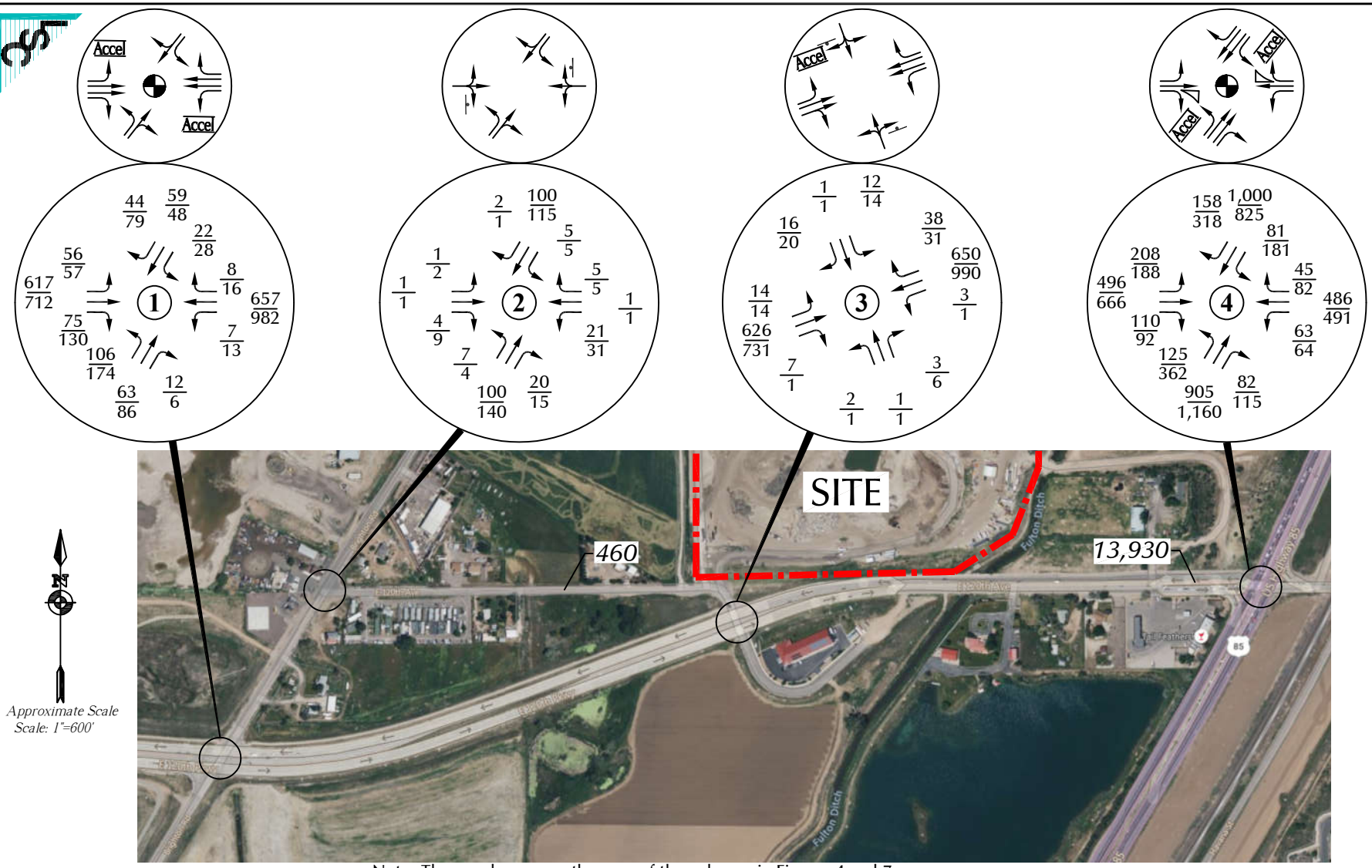
$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

1,000 = Average Daily Traffic

Figure 7

Assignment of Site-Generated Traffic

10925 120th RV & Boat Storage (LSC #230270)



Note: These volumes are the sum of the volumes in Figures 4 and 7.

LEGEND:

= Stop Sign

= Traffic Signal

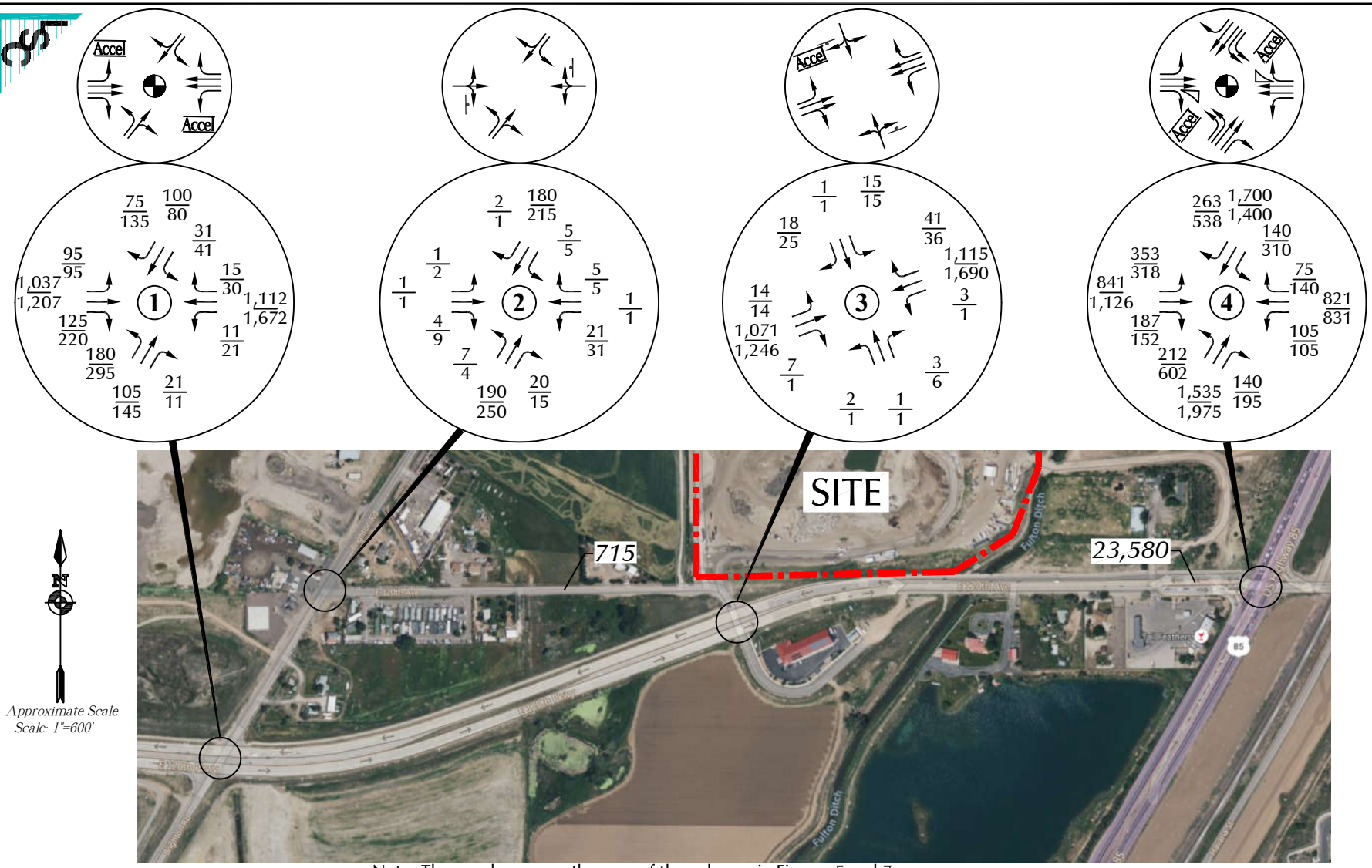
$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

1,000 = Average Daily Traffic

Figure 8

Year 2025 Total Traffic, Lane Geometry and Traffic Control

10925 120th RV & Boat Storage (LSC #230270)



Note: These volumes are the sum of the volumes in Figures 5 and 7.

LEGEND:

= Stop Sign

= Traffic Signal

$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

1,000 = Average Daily Traffic

Figure 9

Year 2043 Total Traffic, Lane Geometry and Traffic Control

10925 120th RV & Boat Storage (LSC #230270)

COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: BRIGHTON BLVD
E/W STREET: E. 120TH AVE
CITY: BRIGHTON
COUNTY: ADAMS

File Name : BRIG120TH
Site Code : 00000008
Start Date : 4/6/2023
Page No : 1

Groups Printed- VEHICLES

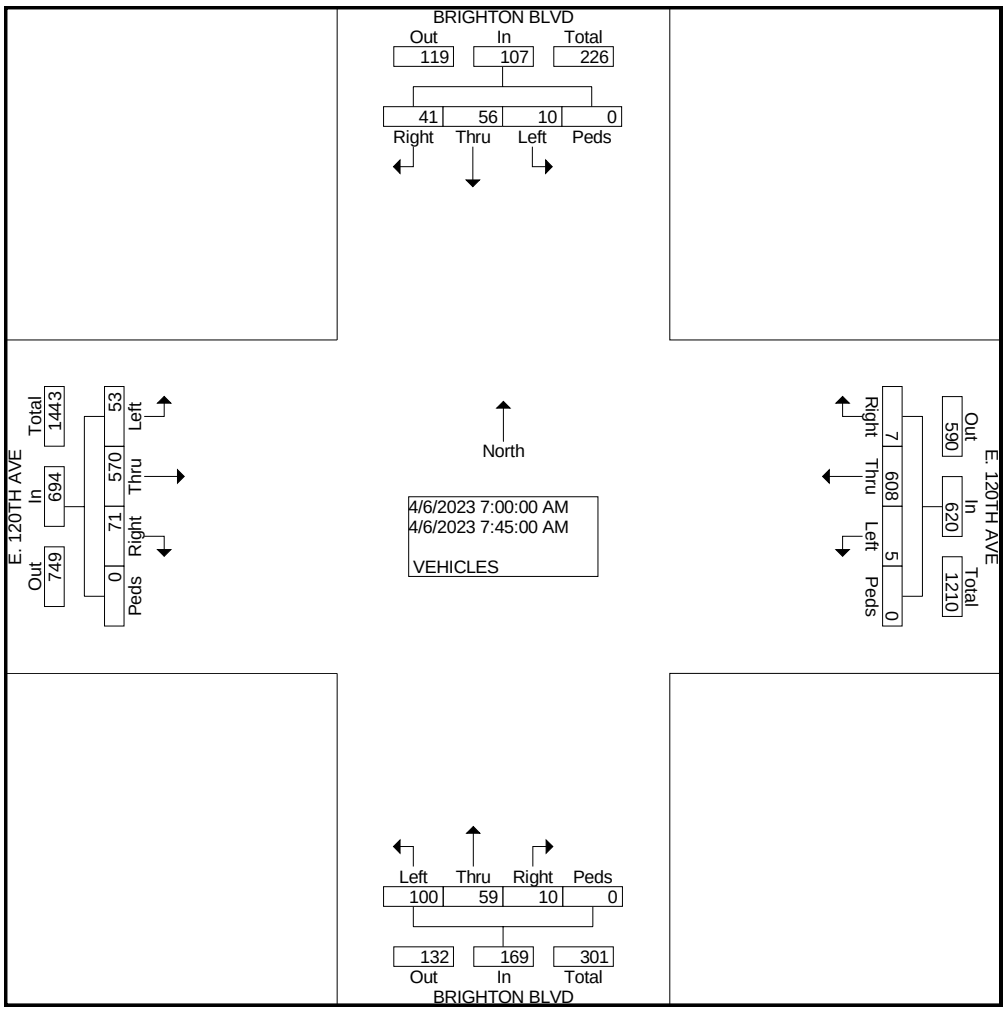
	BRIGHTON BLVD Southbound				E. 120TH AVE Westbound				BRIGHTON BLVD Northbound				E. 120TH AVE Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	1	14	13	0	0	95	2	0	11	8	2	0	8	126	10	0	290
06:45 AM	3	12	9	0	0	86	4	0	18	7	0	0	14	144	18	0	315
Total	4	26	22	0	0	181	6	0	29	15	2	0	22	270	28	0	605
07:00 AM	1	20	10	0	1	131	1	0	21	6	1	0	10	133	14	0	349
07:15 AM	3	9	10	0	1	174	0	0	19	9	3	0	9	166	15	0	418
07:30 AM	2	10	10	0	3	154	1	0	35	15	2	0	15	146	20	0	413
07:45 AM	4	17	11	0	0	149	5	0	25	29	4	0	19	125	22	0	410
Total	10	56	41	0	5	608	7	0	100	59	10	0	53	570	71	0	1590
08:00 AM	7	19	13	0	3	131	4	0	24	16	4	0	13	130	25	0	389
08:15 AM	6	20	10	0	4	129	2	0	27	22	5	0	7	122	23	0	377
Total	13	39	23	0	7	260	6	0	51	38	9	0	20	252	48	0	766
04:00 PM	2	5	10	0	3	210	6	0	27	20	2	0	13	174	13	0	485
04:15 PM	7	8	14	0	1	198	5	0	34	22	1	0	13	167	25	0	495
04:30 PM	7	26	14	0	2	180	10	0	30	22	1	0	17	168	26	0	503
04:45 PM	9	14	13	0	6	232	1	0	39	14	0	0	13	168	31	0	540
Total	25	53	51	0	12	820	22	0	130	78	4	0	56	677	95	0	2023
05:00 PM	3	9	17	0	0	221	4	0	50	26	1	0	14	164	25	0	534
05:15 PM	2	9	19	0	1	241	3	0	38	19	2	0	18	172	40	0	564
05:30 PM	2	13	25	0	4	220	7	0	37	22	1	0	9	157	27	0	524
05:45 PM	2	18	14	0	4	182	2	0	33	17	0	0	4	160	31	0	467
Total	9	49	75	0	9	864	16	0	158	84	4	0	45	653	123	0	2089
Grand Total	61	223	212	0	33	2733	57	0	468	274	29	0	196	2422	365	0	7073
Apprch %	12.3	45.0	42.7	0.0	1.2	96.8	2.0	0.0	60.7	35.5	3.8	0.0	6.6	81.2	12.2	0.0	
Total %	0.9	3.2	3.0	0.0	0.5	38.6	0.8	0.0	6.6	3.9	0.4	0.0	2.8	34.2	5.2	0.0	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: BRIGHTON BLVD
E/W STREET: E. 120TH AVE
CITY: BRIGHTON
COUNTY: ADAMS

File Name : BRIG120TH
Site Code : 00000008
Start Date : 4/6/2023

	BRIGHTON BLVD Southbound					E. 120TH AVE Westbound					BRIGHTON BLVD Northbound					E. 120TH AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 07:45 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	10	56	41	0	107	5	608	7	0	620	100	59	10	0	169	53	570	71	0	694	1590
Percent	9.3	52.3	38.3	0.0		0.8	98.1	1.1	0.0		59.2	34.9	5.9	0.0		7.6	82.1	10.2	0.0		
07:15 Volume	3	9	10	0	22	1	174	0	0	175	19	9	3	0	31	9	166	15	0	190	418
Peak Factor																					0.951
High Int.	07:45 AM					07:15 AM					07:45 AM					07:15 AM					
Volume	4	17	11	0	32	1	174	0	0	175	25	29	4	0	58	9	166	15	0	190	
Peak Factor					0.836					0.886					0.728					0.913	

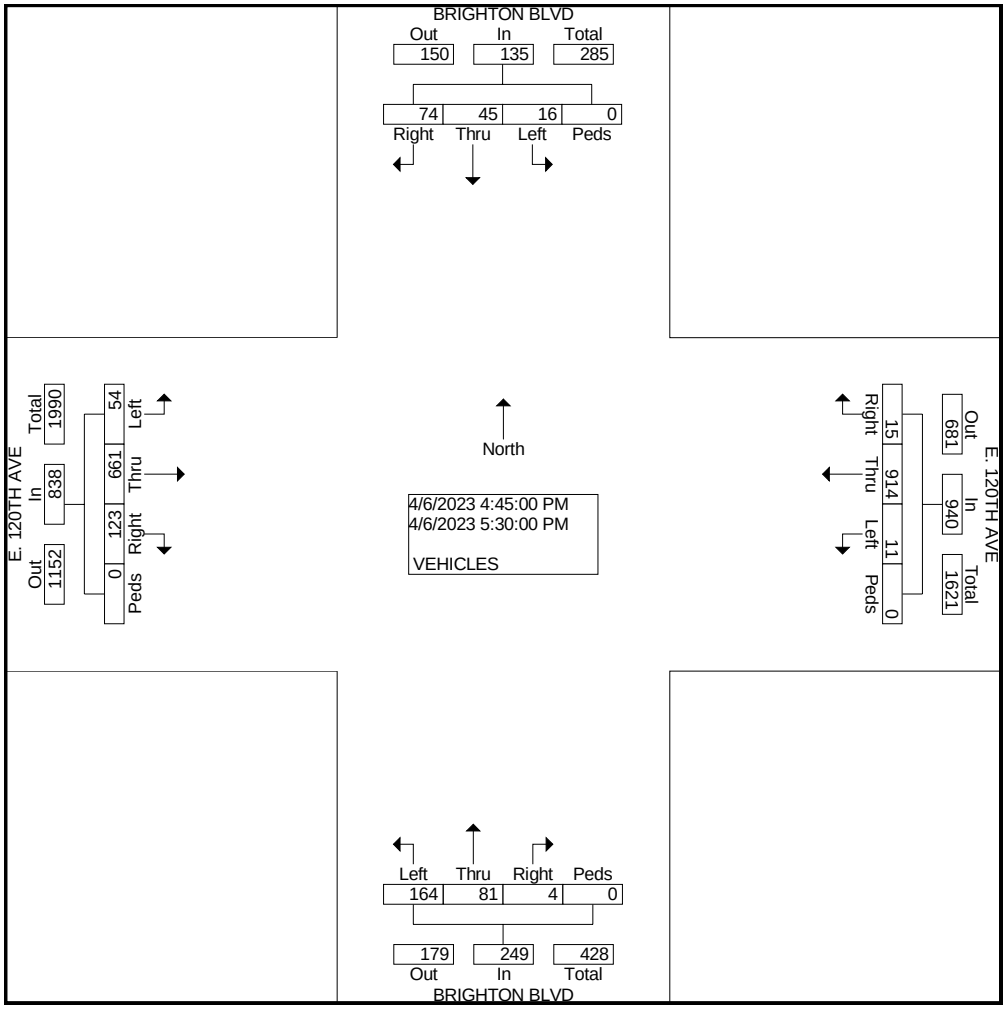


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: BRIGHTON BLVD
E/W STREET: E. 120TH AVE
CITY: BRIGHTON
COUNTY: ADAMS

File Name : BRIG120TH
Site Code : 00000008
Start Date : 4/6/2023
Page No : 3

	BRIGHTON BLVD Southbound					E. 120TH AVE Westbound					BRIGHTON BLVD Northbound					E. 120TH AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	16	45	74	0	135	11	914	15	0	940	164	81	4	0	249	54	661	123	0	838	2162
Percent	11.9	33.3	54.8	0.0		1.2	97.2	1.6	0.0		65.9	32.5	1.6	0.0		6.4	78.9	14.7	0.0		
05:15 Volume	2	9	19	0	30	1	241	3	0	245	38	19	2	0	59	18	172	40	0	230	564
Peak Factor																					0.958
High Int.	05:30 PM					05:15 PM					05:00 PM					05:15 PM					
Volume	2	13	25	0	40	1	241	3	0	245	50	26	1	0	77	18	172	40	0	230	
Peak Factor					0.844					0.959					0.808					0.911	



COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: E. 120TH CT
E/W STREET: E. 120TH AVE
CITY: BRIGHTON
COUNTY: ADAMS

File Name : 120THCT
Site Code : 00000011
Start Date : 4/6/2023
Page No : 1

Groups Printed- VEHICLES

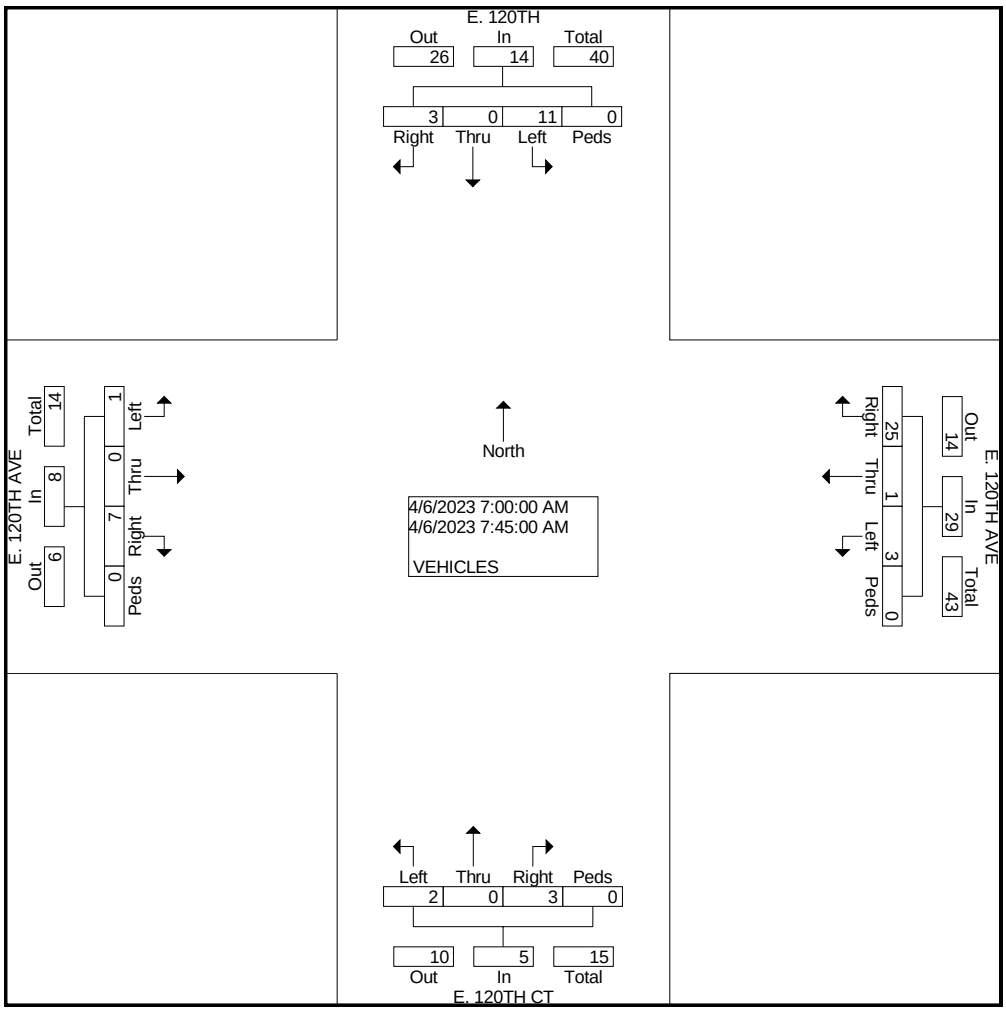
	E. 120TH Southbound				E. 120TH AVE Westbound				E. 120TH CT Northbound				E. 120TH AVE Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
06:30 AM	3	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	7
06:45 AM	8	0	1	0	1	0	5	0	0	0	0	0	0	0	1	0	16
Total	11	0	1	0	1	0	9	0	0	0	0	0	0	0	3	0	25
07:00 AM	1	0	1	0	0	0	4	0	0	0	0	0	0	0	1	0	7
07:15 AM	3	0	1	0	1	0	6	0	0	0	0	0	0	0	2	0	13
07:30 AM	4	0	0	0	0	1	8	0	0	0	2	0	0	0	2	0	17
07:45 AM	3	0	1	0	2	0	7	0	2	0	1	0	1	0	2	0	19
Total	11	0	3	0	3	1	25	0	2	0	3	0	1	0	7	0	56
08:00 AM	3	0	2	0	1	0	6	0	0	0	2	0	0	0	1	0	15
08:15 AM	2	0	2	0	2	0	2	0	0	0	1	0	0	0	2	0	11
Total	5	0	4	0	3	0	8	0	0	0	3	0	0	0	3	0	26
04:00 PM	5	0	0	0	0	0	3	0	1	0	5	0	0	0	0	0	14
04:15 PM	5	0	1	0	0	0	7	0	0	0	0	0	2	0	0	0	15
04:30 PM	3	0	1	0	0	0	6	0	0	0	0	0	0	0	0	0	10
04:45 PM	7	0	2	0	0	0	6	0	0	0	1	0	0	0	0	0	16
Total	20	0	4	0	0	0	22	0	1	0	6	0	2	0	0	0	55
05:00 PM	1	0	4	0	0	0	2	0	0	0	1	0	1	0	0	0	9
05:15 PM	4	0	1	0	0	0	5	0	0	0	2	0	0	0	0	0	12
05:30 PM	1	0	0	0	0	0	6	0	0	0	2	0	0	0	0	0	9
05:45 PM	3	0	0	0	0	0	7	0	0	0	0	0	1	0	0	0	11
Total	9	0	5	0	0	0	20	0	0	0	5	0	2	0	0	0	41
Grand Total	56	0	17	0	7	1	84	0	3	0	17	0	5	0	13	0	203
Apprch %	76.7	0.0	23.3	0.0	7.6	1.1	91.3	0.0	15.0	0.0	85.0	0.0	27.8	0.0	72.2	0.0	
Total %	27.6	0.0	8.4	0.0	3.4	0.5	41.4	0.0	1.5	0.0	8.4	0.0	2.5	0.0	6.4	0.0	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: E. 120TH CT
E/W STREET: E. 120TH AVE
CITY: BRIGHTON
COUNTY: ADAMS

File Name : 120THCT
Site Code : 00000011
Start Date : 4/6/2023
Page No : 2

	E. 120TH Southbound					E. 120TH AVE Westbound					E. 120TH CT Northbound					E. 120TH AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 07:45 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	11	0	3	0	14	3	1	25	0	29	2	0	3	0	5	1	0	7	0	8	56
Percent	78.6	0.0	21.4	0.0		10.3	3.4	86.2	0.0		40.0	0.0	60.0	0.0		12.5	0.0	87.5	0.0		
07:45 Volume	3	0	1	0	4	2	0	7	0	9	2	0	1	0	3	1	0	2	0	3	19
Peak Factor																					0.737
High Int.	07:15 AM					07:30 AM					07:45 AM					07:45 AM					
Volume	3	0	1	0	4	0	1	8	0	9	2	0	1	0	3	1	0	2	0	3	
Peak Factor					0.875					0.806					0.417					0.667	

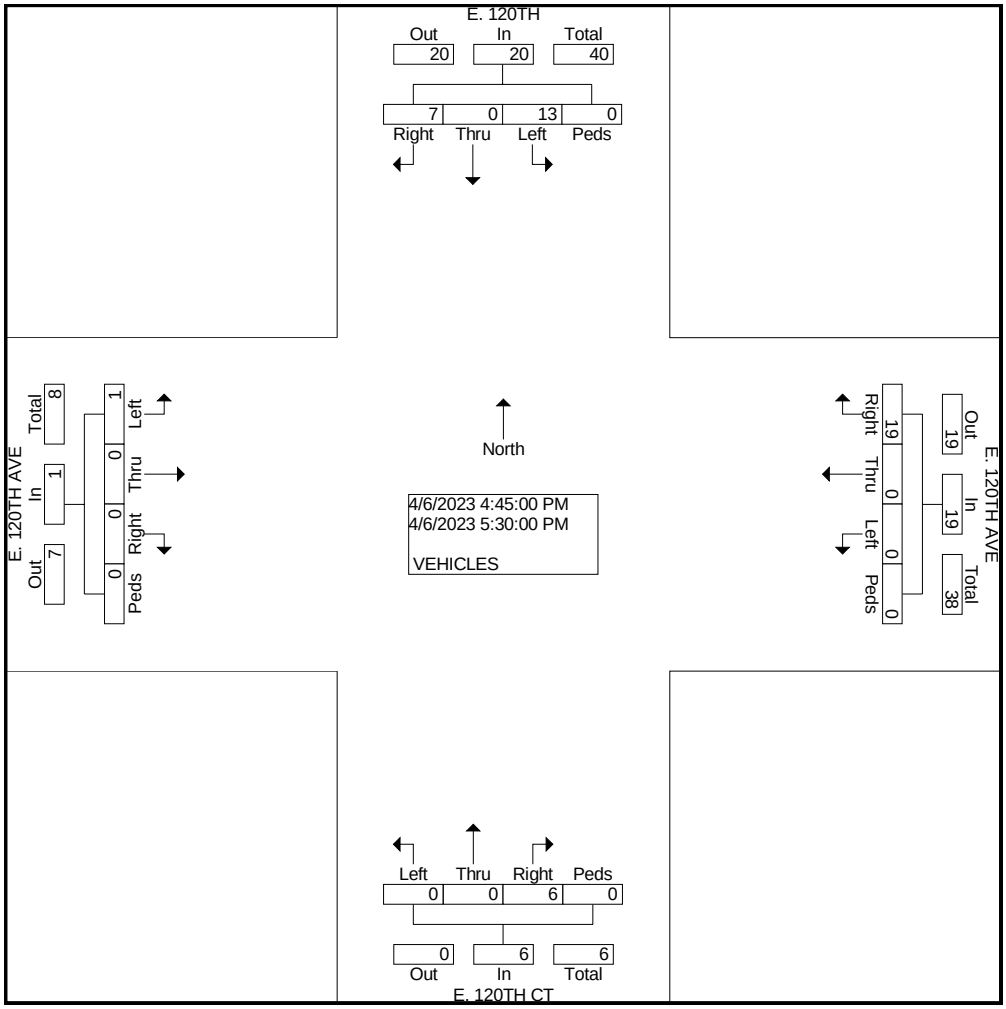


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: E. 120TH CT
E/W STREET: E. 120TH AVE
CITY: BRIGHTON
COUNTY: ADAMS

File Name : 120THCT
Site Code : 00000011
Start Date : 4/6/2023
Page No : 3

	E. 120TH Southbound					E. 120TH AVE Westbound					E. 120TH CT Northbound					E. 120TH AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	13	0	7	0	20	0	0	19	0	19	0	0	6	0	6	1	0	0	0	1	46
Percent	65.0	0.0	35.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		
04:45 Volume	7	0	2	0	9	0	0	6	0	6	0	0	1	0	1	0	0	0	0	0	16
Peak Factor																					0.719
High Int.	04:45 PM					04:45 PM					05:15 PM					05:00 PM					
Volume	7	0	2	0	9	0	0	6	0	6	0	0	2	0	2	1	0	0	0	1	
Peak Factor					0.556					0.792					0.750					0.250	



COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: HWY 85
E/W STREET: E. 120TH AVE
CITY: BRIGHTON
COUNTY: ADAMS

File Name : HWY85120TH
Site Code : 00000022
Start Date : 4/6/2023
Page No : 1

Groups Printed- VEHICLES

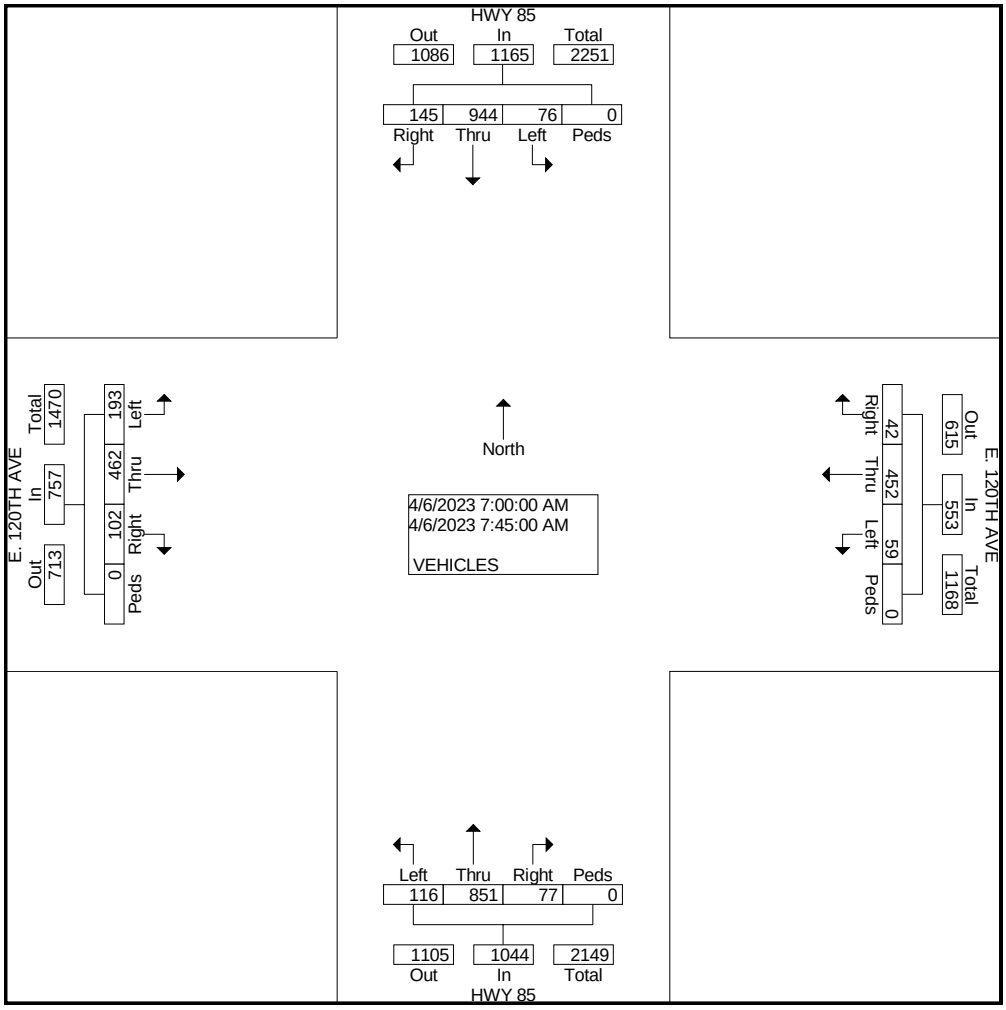
	HWY 85 Southbound				E. 120TH AVE Westbound				HWY 85 Northbound				E. 120TH AVE Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	21	272	17	0	7	77	11	0	9	174	15	0	31	91	20	0	745
06:45 AM	25	247	27	0	4	60	8	0	10	202	10	0	43	77	12	0	725
Total	46	519	44	0	11	137	19	0	19	376	25	0	74	168	32	0	1470
07:00 AM	18	219	30	0	18	124	15	0	6	188	43	0	59	138	24	0	882
07:15 AM	21	249	30	0	22	115	7	0	47	233	10	0	47	119	24	0	924
07:30 AM	18	244	37	0	12	114	9	0	27	199	12	0	45	128	25	0	870
07:45 AM	19	232	48	0	7	99	11	0	36	231	12	0	42	77	29	0	843
Total	76	944	145	0	59	452	42	0	116	851	77	0	193	462	102	0	3519
08:00 AM	20	204	43	0	29	95	16	1	30	181	25	0	54	95	18	0	811
08:15 AM	20	214	43	0	33	74	23	0	30	169	28	0	42	113	33	0	822
Total	40	418	86	0	62	169	39	1	60	350	53	0	96	208	51	0	1633
04:00 PM	30	190	58	0	6	129	13	0	54	250	37	0	58	180	21	0	1026
04:15 PM	26	219	54	0	13	103	13	0	55	323	25	0	41	116	22	0	1010
04:30 PM	45	160	60	0	25	116	17	0	85	255	19	0	50	178	25	0	1035
04:45 PM	75	193	75	0	22	104	23	0	94	259	40	0	46	171	25	0	1127
Total	176	762	247	0	66	452	66	0	288	1087	121	0	195	645	93	0	4198
05:00 PM	24	167	59	0	13	123	12	0	92	300	25	0	41	144	21	0	1021
05:15 PM	45	169	85	0	15	113	30	2	87	262	27	0	47	167	17	0	1066
05:30 PM	27	249	79	0	10	116	12	0	68	273	16	1	40	139	22	0	1052
05:45 PM	25	134	48	1	16	116	12	0	74	221	33	0	55	174	14	0	923
Total	121	719	271	1	54	468	66	2	321	1056	101	1	183	624	74	0	4062
Grand Total	459	3362	793	1	252	1678	232	3	804	3720	377	1	741	2107	352	0	14882
Apprch %	9.9	72.8	17.2	0.0	11.6	77.5	10.7	0.1	16.4	75.9	7.7	0.0	23.2	65.8	11.0	0.0	
Total %	3.1	22.6	5.3	0.0	1.7	11.3	1.6	0.0	5.4	25.0	2.5	0.0	5.0	14.2	2.4	0.0	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: HWY 85
E/W STREET: E. 120TH AVE
CITY: BRIGHTON
COUNTY: ADAMS

File Name : HWY85120TH
Site Code : 00000022
Start Date : 4/6/2023
Page No : 2

	HWY 85 Southbound					E. 120TH AVE Westbound					HWY 85 Northbound					E. 120TH AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	76	944	145	0	1165	59	452	42	0	553	116	851	77	0	1044	193	462	102	0	757	3519
Percent	6.5	81.0	12.4	0.0		10.7	81.7	7.6	0.0		11.1	81.5	7.4	0.0		25.5	61.0	13.5	0.0		
07:15 Volume	21	249	30	0	300	22	115	7	0	144	47	233	10	0	290	47	119	24	0	190	924
Peak Factor																					0.952
High Int.	07:15 AM					07:00 AM					07:15 AM					07:00 AM					
Volume	21	249	30	0	300	18	124	15	0	157	47	233	10	0	290	59	138	24	0	221	
Peak Factor					0.971					0.881					0.900					0.856	

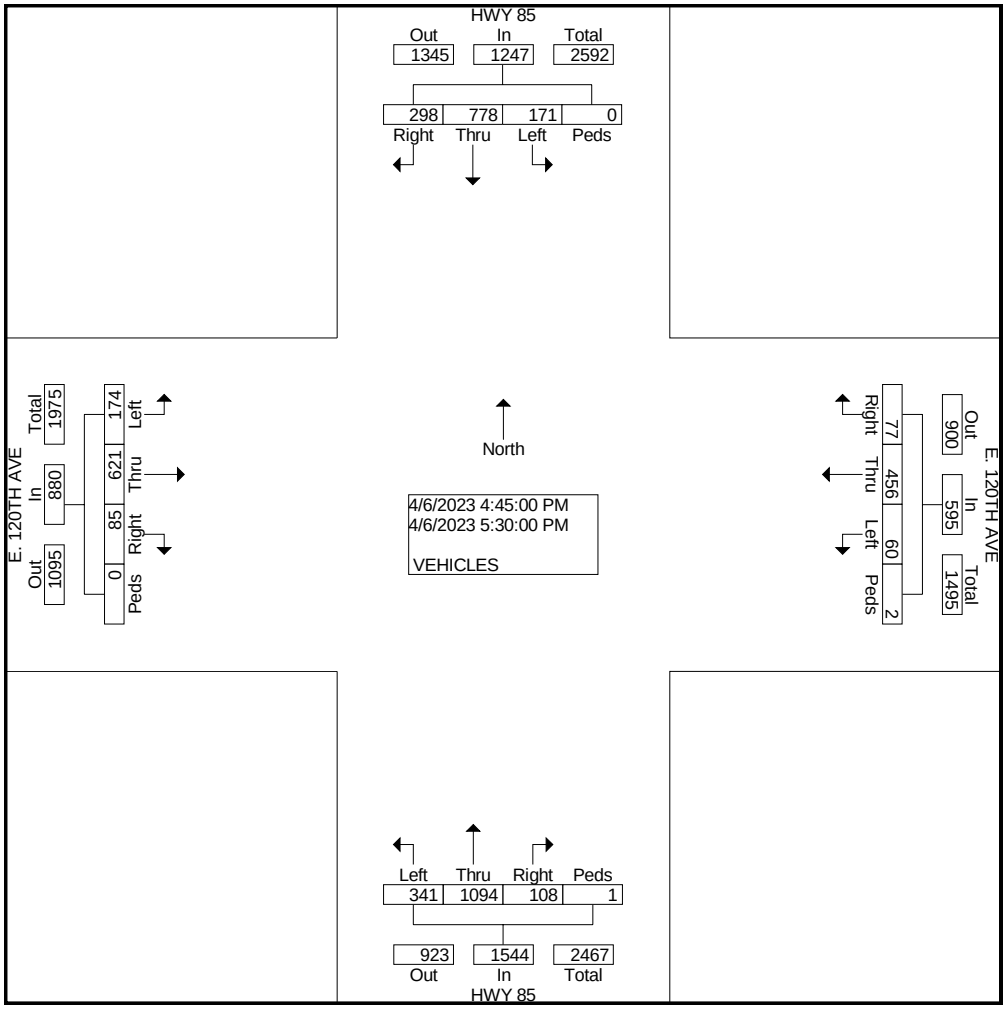


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: HWY 85
E/W STREET: E. 120TH AVE
CITY: BRIGHTON
COUNTY: ADAMS

File Name : HWY85120TH
Site Code : 00000022
Start Date : 4/6/2023
Page No : 3

	HWY 85 Southbound					E. 120TH AVE Westbound					HWY 85 Northbound					E. 120TH AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	171	778	298	0	1247	60	456	77	2	595	341	1094	108	1	1544	174	621	85	0	880	4266
Percent	13.7	62.4	23.9	0.0		10.1	76.6	12.9	0.3		22.1	70.9	7.0	0.1		19.8	70.6	9.7	0.0		
04:45 Volume	75	193	75	0	343	22	104	23	0	149	94	259	40	0	393	46	171	25	0	242	1127
Peak Factor																					0.946
High Int.	05:30 PM					05:15 PM					05:00 PM					04:45 PM					
Volume	27	249	79	0	355	15	113	30	2	160	92	300	25	0	417	46	171	25	0	242	
Peak Factor					0.878					0.930					0.926					0.909	



COUNTER MEASURES INC.
1889 YORK STREET
DENVER,COLORADO 80206
303-333-7409

Location: E. 120TH AVE W-O HWY 85
City: BRIGHTON
County: ADAMS
Direction: EAST/WEST

Site Code: 231108
Station ID: 231108

Start Time	12-Apr-23 Wed	EAST	WEST							Total
12:00 AM		39	25							64
01:00		31	31							62
02:00		38	35							73
03:00		32	36							68
04:00		62	44							106
05:00		221	147							368
06:00		514	332							846
07:00		**580**	**623**							**1203**
08:00		483	517							1000
09:00		367	353							720
10:00		258	198							456
11:00		206	147							353
12:00 PM		203	181							384
01:00		160	221							381
02:00		135	157							292
03:00		340	374							714
04:00		**685**	850							1535
05:00		667	**882**							**1549**
06:00		561	631							1192
07:00		324	348							672
08:00		171	195							366
09:00		109	136							245
10:00		82	98							180
11:00		56	58							114
Total		6324	6619							12943
Percent		48.9%	51.1%							
AM Peak	-	07:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	580	623	-	-	-	-	-	-	1203
PM Peak	-	16:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	685	882	-	-	-	-	-	-	1549
Grand Total		6324	6619							12943
Percent		48.9%	51.1%							
ADT		ADT 11,933		AADT 11,933						

Location: OLD 120TH AVE E-O BRIGHTON BLVD
City: BRIGHTON
County: ADAMS
Direction: EAST/WEST

Site Code: 2311303
Station ID:
Start Date: 4/12/2023
End Date: 4/12/2023
Latitude: 0.000000
Longitude: 0.000000

4/12/2023 Time	EAST	WEST	Total
12:00 AM	0	0	0
1:00	0	0	0
2:00	1	0	1
3:00	0	0	0
4:00	0	0	0
5:00	8	4	12
6:00	9	9	18
7:00	8	16	24
8:00	8	18	26
9:00	4	9	13
10:00	7	17	24
11:00	5	11	16
12:00 PM	8	14	22
1:00	7	17	24
2:00	4	15	19
3:00	4	22	26
4:00	7	34	41
5:00	10	19	29
6:00	2	19	21
7:00	5	6	11
8:00	3	5	8
9:00	0	3	3
10:00	0	0	0
11:00	0	4	4
Total	100	242	342
Percent	29.2%	70.8%	
AM Peak	6:00	8:00	8:00
Volume	9	18	26
PM Peak	5:00	4:00	4:00
Volume	10	34	41
Grand Total	100	242	342
Percent	29.2%	70.8%	
ADT		ADT: 342	AADT: 342

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board

SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

LOS	Average Vehicle Delay sec/vehicle	Operational Characteristics
A	<10 seconds	Describes operations with low control delay, up to 10 sec/veh. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	10 to 20 seconds	Describes operations with control delay greater than 10 seconds and up to 20 sec/veh. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20 to 35 seconds	Describes operations with control delay greater than 20 and up to 35 sec/veh. These higher delays may result from only fair progression, longer cycle length, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35 to 55 seconds	Describes operations with control delay greater than 35 and up to 55 sec/veh. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55 to 80 seconds	Describes operations with control delay greater than 55 and up to 80 sec/veh. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.
F	>80 seconds	Describes operations with control delay in excess of 80 sec/veh. This level, considered unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board

UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

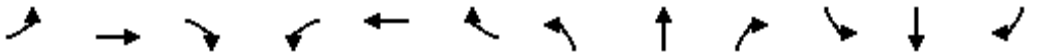
Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

LOS	Average Vehicle Control Delay	Operational Characteristics
A	<10 seconds	Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn.
B	10 to 15 seconds	Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. The delay could be up to 15 seconds. Left-turning vehicles on the uncontrolled street may have to wait to make their turn.
C	15 to 25 seconds	Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane.
D	25 to 35 seconds	This is the point at which a traffic signal may be warranted for this intersection. The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points.
E	35 to 50 seconds	The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. There is a high probability that this intersection will meet traffic signal warrants. The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach.
F	>50 seconds	The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. The only remedy for these long delays is installing a traffic signal or restricting the accesses. The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	53	570	71	5	608	7	100	59	10	56
Future Volume (vph)	53	570	71	5	608	7	100	59	10	56
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		2			6			8		4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	2	2	2	6	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0	40.0	40.0
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	94.2	94.2	94.2	94.2	94.2	94.2	15.8	15.8	15.8	15.8
Actuated g/C Ratio	0.78	0.78	0.78	0.78	0.78	0.78	0.13	0.13	0.13	0.13
v/c Ratio	0.10	0.23	0.06	0.01	0.24	0.01	0.73	0.31	0.06	0.42
Control Delay	4.3	4.0	1.1	4.0	4.1	0.9	75.3	44.2	43.0	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	4.0	1.1	4.0	4.1	0.9	75.3	44.2	43.0	37.2
LOS	A	A	A	A	A	A	E	D	D	D
Approach Delay		3.7			4.0			62.6		37.8
Approach LOS		A			A			E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 45.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & E. 120th Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	570	71	5	608	7	100	59	10	10	56	41
Future Volume (veh/h)	53	570	71	5	608	7	100	59	10	10	56	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	626	78	5	668	8	110	65	11	11	62	45
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	594	2688	1199	583	2688	1199	196	250	42	224	162	117
Arrive On Green	0.76	0.76	0.76	0.76	0.76	0.76	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	763	3554	1585	743	3554	1585	1287	1559	264	1323	1007	731
Grp Volume(v), veh/h	58	626	78	5	668	8	110	0	76	11	0	107
Grp Sat Flow(s),veh/h/ln	763	1777	1585	743	1777	1585	1287	0	1823	1323	0	1739
Q Serve(g_s), s	3.0	6.3	1.5	0.2	6.8	0.1	10.0	0.0	4.4	0.9	0.0	6.6
Cycle Q Clear(g_c), s	9.7	6.3	1.5	6.5	6.8	0.1	16.6	0.0	4.4	5.3	0.0	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.42
Lane Grp Cap(c), veh/h	594	2688	1199	583	2688	1199	196	0	292	224	0	279
V/C Ratio(X)	0.10	0.23	0.07	0.01	0.25	0.01	0.56	0.00	0.26	0.05	0.00	0.38
Avail Cap(c_a), veh/h	594	2688	1199	583	2688	1199	364	0	532	398	0	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.8	4.3	3.7	5.3	4.4	3.6	52.5	0.0	44.1	46.4	0.0	45.1
Incr Delay (d2), s/veh	0.3	0.2	0.1	0.0	0.2	0.0	2.5	0.0	0.5	0.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.8	0.4	0.0	2.0	0.0	3.3	0.0	2.0	0.3	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	4.5	3.9	5.3	4.6	3.6	55.0	0.0	44.6	46.5	0.0	45.9
LnGrp LOS	A	A	A	A	A	A	E	A	D	D	A	D
Approach Vol, veh/h		762			681			186			118	
Approach Delay, s/veh		4.6			4.6			50.8			46.0	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		95.8		24.2		95.8		24.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		75.0		35.0		75.0		35.0				
Max Q Clear Time (g_c+I1), s		11.7		8.6		8.8		18.6				
Green Ext Time (p_c), s		5.2		0.6		4.8		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			12.3									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	580	7	3	615	25	2	0	3	11	0	3
Future Vol, veh/h	1	580	7	3	615	25	2	0	3	11	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	690	-	-	265	-	285	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	637	8	3	676	27	2	0	3	12	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	703	0	0	645	0	0	987	1352	323	1003	1329	338
Stage 1	-	-	-	-	-	-	643	643	-	682	682	-
Stage 2	-	-	-	-	-	-	344	709	-	321	647	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	890	-	-	936	-	-	202	149	673	196	154	658
Stage 1	-	-	-	-	-	-	428	467	-	406	448	-
Stage 2	-	-	-	-	-	-	645	435	-	665	465	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	890	-	-	936	-	-	200	148	673	194	153	658
Mov Cap-2 Maneuver	-	-	-	-	-	-	200	148	-	194	153	-
Stage 1	-	-	-	-	-	-	428	467	-	406	447	-
Stage 2	-	-	-	-	-	-	640	434	-	661	465	-

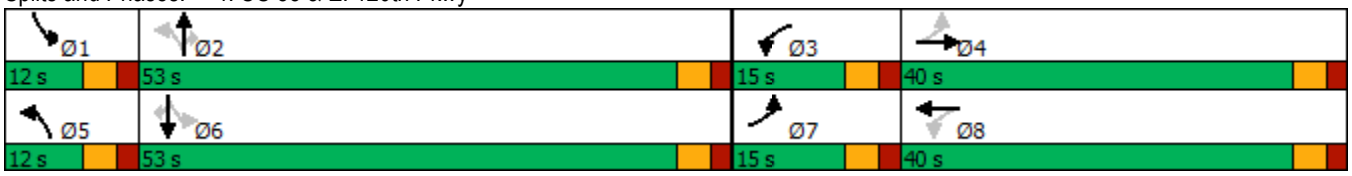
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	15.6	21.9
HCM LOS			C	C

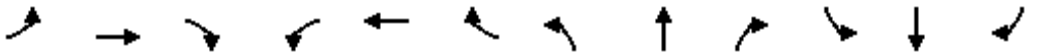
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	346	890	-	-	936	-	-	229
HCM Lane V/C Ratio	0.016	0.001	-	-	0.004	-	-	0.067
HCM Control Delay (s)	15.6	9.1	-	-	8.9	-	-	21.9
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	462	102	59	452	42	116	851	77	76	944	145
Future Volume (vph)	193	462	102	59	452	42	116	851	77	76	944	145
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	15.0	40.0		15.0	40.0		12.0	53.0	53.0	12.0	53.0	53.0
Total Split (%)	12.5%	33.3%		12.5%	33.3%		10.0%	44.2%	44.2%	10.0%	44.2%	44.2%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0		-2.0	-3.0	0.0	-2.0	-3.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	3.0		3.0	2.0	5.0	3.0	2.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	44.5	38.6	117.3	40.1	34.2	117.3	59.7	53.6	50.6	58.8	51.1	48.1
Actuated g/C Ratio	0.38	0.33	1.00	0.34	0.29	1.00	0.51	0.46	0.43	0.50	0.44	0.41
v/c Ratio	0.97	0.79	0.07	0.32	0.88	0.03	0.49	0.55	0.11	0.28	0.65	0.21
Control Delay	84.2	47.7	0.1	26.2	57.8	0.0	21.7	26.0	2.2	17.1	28.9	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.2	47.7	0.1	26.2	57.8	0.0	21.7	26.0	2.2	17.1	28.9	4.3
LOS	F	D	A	C	E	A	C	C	A	B	C	A
Approach Delay		50.6			50.1			23.8			25.0	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.3	
Natural Cycle: 65	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 34.1	Intersection LOS: C
Intersection Capacity Utilization 81.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: US 85 & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	462	102	59	452	42	116	851	77	76	944	145
Future Volume (veh/h)	193	462	102	59	452	42	116	851	77	76	944	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	203	486	0	62	476	0	122	896	81	80	994	153
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	631		209	539		294	1617	680	316	1572	660
Arrive On Green	0.09	0.34	0.00	0.04	0.29	0.00	0.07	0.46	0.43	0.06	0.44	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	203	486	0	62	476	0	122	896	81	80	994	153
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.3	26.8	0.0	2.9	28.0	0.0	4.2	21.2	3.5	2.8	25.0	7.2
Cycle Q Clear(g_c), s	9.3	26.8	0.0	2.9	28.0	0.0	4.2	21.2	3.5	2.8	25.0	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	631		209	539		294	1617	680	316	1572	660
V/C Ratio(X)	0.84	0.77		0.30	0.88		0.42	0.55	0.12	0.25	0.63	0.23
Avail Cap(c_a), veh/h	242	631		297	600		308	1617	680	353	1572	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	34.2	0.0	30.7	39.2	0.0	18.7	22.9	19.8	17.6	24.9	21.7
Incr Delay (d2), s/veh	21.9	5.8	0.0	0.8	13.6	0.0	0.9	1.4	0.4	0.4	1.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	12.6	0.0	1.2	14.3	0.0	1.6	8.4	1.3	1.1	10.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.9	40.0	0.0	31.4	52.8	0.0	19.7	24.3	20.2	18.0	26.8	22.5
LnGrp LOS	D	D		C	D		B	C	C	B	C	C
Approach Vol, veh/h		689			538			1099			1227	
Approach Delay, s/veh		43.5			50.3			23.4			25.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	54.5	9.3	41.9	11.1	53.0	15.0	36.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	48.0	10.0	35.0	7.0	48.0	10.0	35.0
Max Q Clear Time (g_c+I1), s	4.8	23.2	4.9	28.8	6.2	27.0	11.3	30.0
Green Ext Time (p_c), s	0.0	6.0	0.0	1.4	0.0	6.7	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	32.2
HCM 6th LOS	C

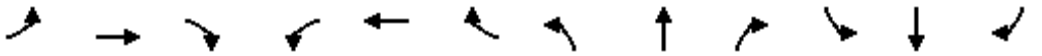
Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	54	661	123	11	914	15	164	81	16	45
Future Volume (vph)	54	661	123	11	914	15	164	81	16	45
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		2			6			8		4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	2	2	2	6	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0	40.0	40.0
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	87.8	87.8	87.8	87.8	87.8	87.8	22.2	22.2	22.2	22.2
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.73	0.73	0.18	0.18	0.18	0.18
v/c Ratio	0.15	0.27	0.11	0.02	0.37	0.01	0.82	0.26	0.07	0.34
Control Delay	7.5	6.3	1.4	6.4	7.1	2.6	74.4	40.5	37.2	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	6.3	1.4	6.4	7.1	2.6	74.4	40.5	37.2	20.9
LOS	A	A	A	A	A	A	E	D	D	C
Approach Delay		5.7			7.0			62.9		22.8
Approach LOS		A			A			E		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 13.9	Intersection LOS: B
Intersection Capacity Utilization 57.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & E. 120th Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	661	123	11	914	15	164	81	4	16	45	74
Future Volume (veh/h)	54	661	123	11	914	15	164	81	4	16	45	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	689	128	11	952	16	171	84	4	17	47	77
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	2488	1110	480	2488	1110	255	384	18	292	138	226
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	581	3554	1585	669	3554	1585	1267	1771	84	1309	638	1045
Grp Volume(v), veh/h	56	689	128	11	952	16	171	0	88	17	0	124
Grp Sat Flow(s),veh/h/ln	581	1777	1585	669	1777	1585	1267	0	1855	1309	0	1682
Q Serve(g_s), s	5.2	8.7	3.2	0.7	13.2	0.4	15.8	0.0	4.7	1.3	0.0	7.5
Cycle Q Clear(g_c), s	18.4	8.7	3.2	9.4	13.2	0.4	23.3	0.0	4.7	6.0	0.0	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.62
Lane Grp Cap(c), veh/h	403	2488	1110	480	2488	1110	255	0	402	292	0	364
V/C Ratio(X)	0.14	0.28	0.12	0.02	0.38	0.01	0.67	0.00	0.22	0.06	0.00	0.34
Avail Cap(c_a), veh/h	403	2488	1110	480	2488	1110	351	0	541	391	0	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.1	6.7	5.9	8.4	7.4	5.5	49.6	0.0	38.7	41.1	0.0	39.8
Incr Delay (d2), s/veh	0.7	0.3	0.2	0.1	0.4	0.0	3.0	0.0	0.3	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.8	1.0	0.1	4.3	0.1	5.2	0.0	2.2	0.4	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.9	7.0	6.1	8.5	7.8	5.5	52.6	0.0	38.9	41.2	0.0	40.3
LnGrp LOS	B	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h		873			979			259			141	
Approach Delay, s/veh		7.2			7.8			48.0			40.4	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		89.0		31.0		89.0		31.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		75.0		35.0		75.0		35.0				
Max Q Clear Time (g_c+I1), s		20.4		9.5		15.2		25.3				
Green Ext Time (p_c), s		6.2		0.7		7.8		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			14.2									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	680	0	0	935	19	0	0	6	13	0	7
Future Vol, veh/h	1	680	0	0	935	19	0	0	6	13	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	690	-	-	265	-	285	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	716	0	0	984	20	0	0	6	14	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1004	0	0	716	0	0	1210	1722	358	1344	1702	492
Stage 1	-	-	-	-	-	-	718	718	-	984	984	-
Stage 2	-	-	-	-	-	-	492	1004	-	360	718	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	686	-	-	880	-	-	138	88	638	110	91	522
Stage 1	-	-	-	-	-	-	386	431	-	267	325	-
Stage 2	-	-	-	-	-	-	527	318	-	631	431	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	686	-	-	880	-	-	136	88	638	109	91	522
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	88	-	109	91	-
Stage 1	-	-	-	-	-	-	386	431	-	267	325	-
Stage 2	-	-	-	-	-	-	520	318	-	624	431	-

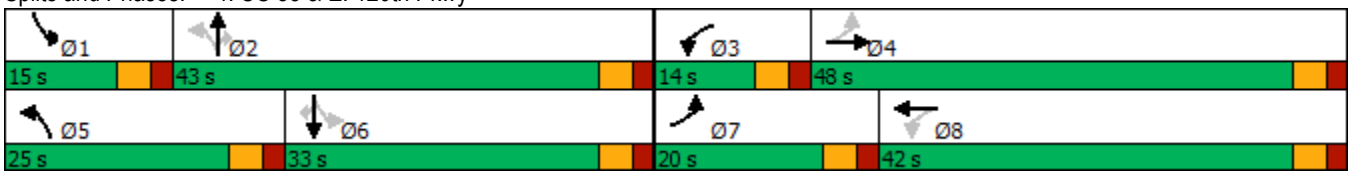
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	10.7	32.7
HCM LOS			B	D

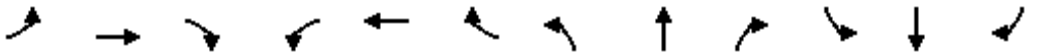
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	638	686	-	-	880	-	-	151
HCM Lane V/C Ratio	0.01	0.002	-	-	-	-	-	0.139
HCM Control Delay (s)	10.7	10.3	-	-	0	-	-	32.7
HCM Lane LOS	B	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	621	85	60	456	77	341	1094	108	171	778	298
Future Volume (vph)	174	621	85	60	456	77	341	1094	108	171	778	298
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	20.0	48.0		14.0	42.0		25.0	43.0	43.0	15.0	33.0	33.0
Total Split (%)	16.7%	40.0%		11.7%	35.0%		20.8%	35.8%	35.8%	12.5%	27.5%	27.5%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0		-2.0	-3.0	0.0	-2.0	-3.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	3.0		3.0	2.0	5.0	3.0	2.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	51.7	43.8	114.9	42.1	36.5	114.9	55.0	41.2	38.2	42.3	31.6	28.6
Actuated g/C Ratio	0.45	0.38	1.00	0.37	0.32	1.00	0.48	0.36	0.33	0.37	0.28	0.25
v/c Ratio	0.68	0.92	0.06	0.35	0.81	0.05	0.91	0.91	0.18	0.73	0.84	0.51
Control Delay	34.3	54.7	0.1	23.7	48.2	0.1	60.0	47.5	2.4	44.8	49.6	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	54.7	0.1	23.7	48.2	0.1	60.0	47.5	2.4	44.8	49.6	8.4
LOS	C	D	A	C	D	A	E	D	A	D	D	A
Approach Delay		45.4			39.5			47.1			39.1	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.9	
Natural Cycle: 90	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 43.3	Intersection LOS: D
Intersection Capacity Utilization 91.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: US 85 & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	621	85	60	456	77	341	1094	108	171	778	298
Future Volume (veh/h)	174	621	85	60	456	77	341	1094	108	171	778	298
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	654	0	63	480	0	359	1152	114	180	819	314
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	293	711		154	621		413	1289	533	270	1031	418
Arrive On Green	0.09	0.38	0.00	0.04	0.33	0.00	0.18	0.36	0.34	0.10	0.29	0.26
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	183	654	0	63	480	0	359	1152	114	180	819	314
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.5	37.7	0.0	2.7	26.1	0.0	15.7	34.6	5.8	7.8	24.0	20.6
Cycle Q Clear(g_c), s	7.5	37.7	0.0	2.7	26.1	0.0	15.7	34.6	5.8	7.8	24.0	20.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	711		154	621		413	1289	533	270	1031	418
V/C Ratio(X)	0.62	0.92		0.41	0.77		0.87	0.89	0.21	0.67	0.79	0.75
Avail Cap(c_a), veh/h	377	745		228	645		445	1289	533	274	1031	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	33.4	0.0	29.6	33.9	0.0	26.1	34.0	26.8	27.9	37.0	38.2
Incr Delay (d2), s/veh	2.2	16.3	0.0	1.7	5.6	0.0	16.0	9.8	0.9	5.9	6.3	11.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	19.2	0.0	1.2	12.2	0.0	7.8	15.4	2.3	3.5	10.6	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	49.7	0.0	31.3	39.5	0.0	42.1	43.7	27.8	33.8	43.3	50.0
LnGrp LOS	C	D		C	D		D	D	C	C	D	D
Approach Vol, veh/h		837			543			1625			1313	
Approach Delay, s/veh		44.9			38.6			42.2			43.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	43.0	9.3	45.9	23.0	34.8	14.7	40.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	38.0	9.0	43.0	20.0	28.0	15.0	37.0
Max Q Clear Time (g_c+I1), s	9.8	36.6	4.7	39.7	17.7	26.0	9.5	28.1
Green Ext Time (p_c), s	0.0	1.0	0.0	1.3	0.3	1.2	0.2	1.8

Intersection Summary	
HCM 6th Ctrl Delay	42.7
HCM 6th LOS	D

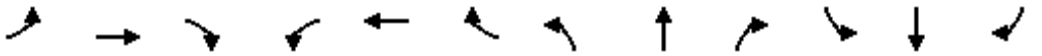
Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	56	605	75	6	645	8	106	63	11	59
Future Volume (vph)	56	605	75	6	645	8	106	63	11	59
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		2			6			8		4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	2	2	2	6	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0	40.0	40.0
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	93.5	93.5	93.5	93.5	93.5	93.5	16.5	16.5	16.5	16.5
Actuated g/C Ratio	0.78	0.78	0.78	0.78	0.78	0.78	0.14	0.14	0.14	0.14
v/c Ratio	0.11	0.24	0.07	0.01	0.26	0.01	0.75	0.32	0.07	0.42
Control Delay	4.7	4.3	1.1	4.3	4.4	1.0	77.0	43.9	42.5	37.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	4.3	1.1	4.3	4.4	1.0	77.0	43.9	42.5	37.5
LOS	A	A	A	A	A	A	E	D	D	D
Approach Delay		4.0			4.3			63.4		38.0
Approach LOS		A			A			E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 47.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & E. 120th Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	605	75	6	645	8	106	63	11	11	59	44
Future Volume (veh/h)	56	605	75	6	645	8	106	63	11	11	59	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	665	82	7	709	9	116	69	12	12	65	48
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	563	2659	1186	553	2659	1186	202	261	45	231	168	124
Arrive On Green	0.75	0.75	0.75	0.75	0.75	0.75	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	734	3554	1585	714	3554	1585	1280	1552	270	1317	999	738
Grp Volume(v), veh/h	62	665	82	7	709	9	116	0	81	12	0	113
Grp Sat Flow(s),veh/h/ln	734	1777	1585	714	1777	1585	1280	0	1822	1317	0	1738
Q Serve(g_s), s	3.5	7.0	1.6	0.4	7.5	0.2	10.6	0.0	4.6	1.0	0.0	6.9
Cycle Q Clear(g_c), s	11.0	7.0	1.6	7.3	7.5	0.2	17.6	0.0	4.6	5.6	0.0	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.42
Lane Grp Cap(c), veh/h	563	2659	1186	553	2659	1186	202	0	307	231	0	293
V/C Ratio(X)	0.11	0.25	0.07	0.01	0.27	0.01	0.58	0.00	0.26	0.05	0.00	0.39
Avail Cap(c_a), veh/h	563	2659	1186	553	2659	1186	359	0	531	393	0	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.5	4.7	4.0	5.8	4.8	3.8	52.2	0.0	43.4	45.9	0.0	44.4
Incr Delay (d2), s/veh	0.4	0.2	0.1	0.0	0.2	0.0	2.6	0.0	0.5	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	0.5	0.1	2.2	0.0	3.5	0.0	2.1	0.3	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.9	4.9	4.1	5.9	5.0	3.8	54.8	0.0	43.9	45.9	0.0	45.2
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h		809			725			197			125	
Approach Delay, s/veh		5.0			5.0			50.3			45.3	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		94.8		25.2		94.8		25.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		75.0		35.0		75.0		35.0				
Max Q Clear Time (g_c+I1), s		13.0		8.9		9.5		19.6				
Green Ext Time (p_c), s		5.6		0.6		5.2		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			12.5									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↱		↰	↱	
Traffic Vol, veh/h	1	1	4	10	1	5	7	100	20	5	100	2
Future Vol, veh/h	1	1	4	10	1	5	7	100	20	5	100	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	335	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	4	11	1	5	8	109	22	5	109	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	259	267	110	259	257	120	111	0	0	131	0	0
Stage 1	120	120	-	136	136	-	-	-	-	-	-	-
Stage 2	139	147	-	123	121	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	694	639	943	694	647	931	1479	-	-	1454	-	-
Stage 1	884	796	-	867	784	-	-	-	-	-	-	-
Stage 2	864	775	-	881	796	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	684	634	943	685	642	931	1479	-	-	1454	-	-
Mov Cap-2 Maneuver	684	634	-	685	642	-	-	-	-	-	-	-
Stage 1	880	794	-	863	780	-	-	-	-	-	-	-
Stage 2	853	771	-	873	794	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10	0.4	0.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1479	-	-	824	743	1454	-	-
HCM Lane V/C Ratio	0.005	-	-	0.008	0.023	0.004	-	-
HCM Control Delay (s)	7.4	-	-	9.4	10	7.5	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	615	7	3	650	27	2	1	3	12	1	3
Future Vol, veh/h	1	615	7	3	650	27	2	1	3	12	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	690	-	-	265	-	285	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	676	8	3	714	30	2	1	3	13	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	744	0	0	684	0	0	1046	1432	342	1061	1406	357
Stage 1	-	-	-	-	-	-	682	682	-	720	720	-
Stage 2	-	-	-	-	-	-	364	750	-	341	686	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	859	-	-	905	-	-	183	133	654	178	138	639
Stage 1	-	-	-	-	-	-	406	448	-	385	430	-
Stage 2	-	-	-	-	-	-	627	417	-	647	446	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	859	-	-	905	-	-	180	132	654	175	137	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	180	132	-	175	137	-
Stage 1	-	-	-	-	-	-	406	448	-	385	429	-
Stage 2	-	-	-	-	-	-	620	416	-	641	446	-

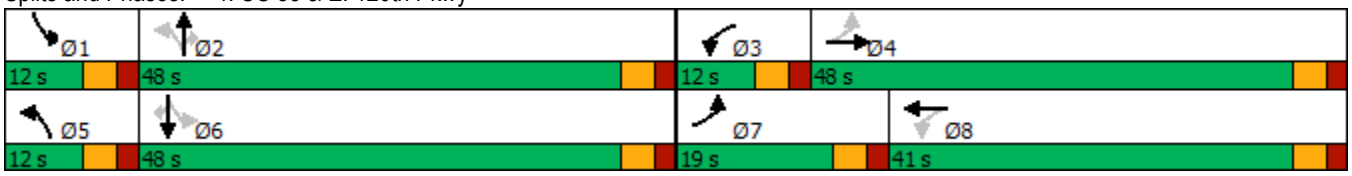
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	19.3	24.8
HCM LOS			C	C

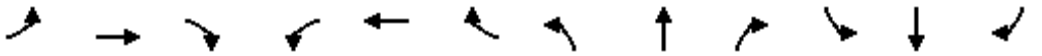
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	258	859	-	-	905	-	-	199
HCM Lane V/C Ratio	0.026	0.001	-	-	0.004	-	-	0.088
HCM Control Delay (s)	19.3	9.2	-	-	9	-	-	24.8
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	490	108	63	480	45	123	905	82	81	1000	155
Future Volume (vph)	205	490	108	63	480	45	123	905	82	81	1000	155
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	19.0	48.0		12.0	41.0		12.0	48.0	48.0	12.0	48.0	48.0
Total Split (%)	15.8%	40.0%		10.0%	34.2%		10.0%	40.0%	40.0%	10.0%	40.0%	40.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0		-2.0	-3.0	0.0	-2.0	-3.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	3.0		3.0	2.0	5.0	3.0	2.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	52.1	44.7	117.2	40.2	35.4	117.2	54.7	48.7	45.7	53.9	46.1	43.1
Actuated g/C Ratio	0.44	0.38	1.00	0.34	0.30	1.00	0.47	0.42	0.39	0.46	0.39	0.37
v/c Ratio	0.81	0.73	0.07	0.31	0.90	0.03	0.64	0.65	0.12	0.36	0.76	0.24
Control Delay	50.3	38.9	0.1	23.0	59.4	0.0	35.5	31.4	0.4	21.6	35.5	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	38.9	0.1	23.0	59.4	0.0	35.5	31.4	0.4	21.6	35.5	4.9
LOS	D	D	A	C	E	A	D	C	A	C	D	A
Approach Delay		36.6			51.0			29.6			30.8	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.2	
Natural Cycle: 75	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 34.8	Intersection LOS: C
Intersection Capacity Utilization 85.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: US 85 & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	490	108	63	480	45	123	905	82	81	1000	155
Future Volume (veh/h)	205	490	108	63	480	45	123	905	82	81	1000	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	516	0	66	505	0	129	953	86	85	1053	163
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	269	685		227	568		264	1496	625	278	1441	601
Arrive On Green	0.10	0.37	0.00	0.04	0.30	0.00	0.08	0.42	0.39	0.06	0.41	0.38
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	216	516	0	66	505	0	129	953	86	85	1053	163
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.3	27.4	0.0	2.9	29.2	0.0	4.6	24.1	3.9	3.1	28.4	8.1
Cycle Q Clear(g_c), s	9.3	27.4	0.0	2.9	29.2	0.0	4.6	24.1	3.9	3.1	28.4	8.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	685		227	568		264	1496	625	278	1441	601
V/C Ratio(X)	0.80	0.75		0.29	0.89		0.49	0.64	0.14	0.31	0.73	0.27
Avail Cap(c_a), veh/h	309	742		268	627		272	1496	625	313	1441	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	31.5	0.0	28.8	37.7	0.0	21.8	26.0	22.0	20.2	28.5	24.4
Incr Delay (d2), s/veh	12.6	4.0	0.0	0.7	13.8	0.0	1.4	2.1	0.5	0.6	3.3	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	12.5	0.0	1.3	14.9	0.0	1.8	9.7	1.5	1.2	11.7	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	35.5	0.0	29.5	51.5	0.0	23.2	28.1	22.4	20.8	31.8	25.5
LnGrp LOS	D	D		C	D		C	C	C	C	C	C
Approach Vol, veh/h		732			571			1168			1301	
Approach Delay, s/veh		37.0			48.9			27.1			30.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	49.8	9.4	44.5	11.5	48.0	16.5	37.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	43.0	7.0	43.0	7.0	43.0	14.0	36.0
Max Q Clear Time (g_c+I1), s	5.1	26.1	4.9	29.4	6.6	30.4	11.3	31.2
Green Ext Time (p_c), s	0.0	5.7	0.0	2.5	0.0	5.6	0.2	1.2

Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

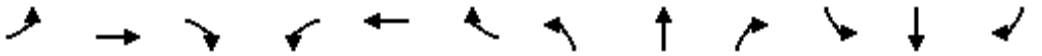
Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	57	700	130	12	970	16	174	86	17	48
Future Volume (vph)	57	700	130	12	970	16	174	86	17	48
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		2			6			8		4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	2	2	2	6	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0	40.0	40.0
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	86.5	86.5	86.5	86.5	86.5	86.5	23.5	23.5	23.5	23.5
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.72	0.72	0.20	0.20	0.20	0.20
v/c Ratio	0.17	0.29	0.11	0.03	0.40	0.01	0.83	0.26	0.07	0.34
Control Delay	8.5	7.0	1.5	6.8	7.9	2.9	74.8	39.7	36.2	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	7.0	1.5	6.8	7.9	2.9	74.8	39.7	36.2	21.3
LOS	A	A	A	A	A	A	E	D	D	C
Approach Delay		6.2			7.8			62.7		23.1
Approach LOS		A			A			E		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 64.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & E. 120th Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	700	130	12	970	16	174	86	5	17	48	79
Future Volume (veh/h)	57	700	130	12	970	16	174	86	5	17	48	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	729	135	12	1010	17	181	90	5	18	50	82
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	370	2445	1091	449	2445	1091	265	401	22	303	146	239
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	549	3554	1585	640	3554	1585	1258	1755	98	1301	637	1045
Grp Volume(v), veh/h	59	729	135	12	1010	17	181	0	95	18	0	132
Grp Sat Flow(s),veh/h/ln	549	1777	1585	640	1777	1585	1258	0	1853	1301	0	1682
Q Serve(g_s), s	6.3	9.7	3.5	0.9	14.9	0.4	16.9	0.0	5.0	1.4	0.0	7.9
Cycle Q Clear(g_c), s	21.2	9.7	3.5	10.6	14.9	0.4	24.8	0.0	5.0	6.4	0.0	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.62
Lane Grp Cap(c), veh/h	370	2445	1091	449	2445	1091	265	0	424	303	0	385
V/C Ratio(X)	0.16	0.30	0.12	0.03	0.41	0.02	0.68	0.00	0.22	0.06	0.00	0.34
Avail Cap(c_a), veh/h	370	2445	1091	449	2445	1091	344	0	540	385	0	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.8	7.3	6.4	9.4	8.2	5.9	49.1	0.0	37.6	40.2	0.0	38.7
Incr Delay (d2), s/veh	0.9	0.3	0.2	0.1	0.5	0.0	3.7	0.0	0.3	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.2	1.1	0.1	5.0	0.1	5.5	0.0	2.3	0.4	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	7.7	6.6	9.5	8.7	5.9	52.8	0.0	37.9	40.3	0.0	39.3
LnGrp LOS	B	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h		923			1039			276			150	
Approach Delay, s/veh		7.9			8.6			47.6			39.4	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		87.6		32.4		87.6		32.4				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		75.0		35.0		75.0		35.0				
Max Q Clear Time (g_c+I1), s		23.2		9.9		16.9		26.8				
Green Ext Time (p_c), s		6.7		0.8		8.5		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			14.8									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↱		↰	↱	
Traffic Vol, veh/h	2	1	9	20	1	5	4	140	15	5	115	1
Future Vol, veh/h	2	1	9	20	1	5	4	140	15	5	115	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	335	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	10	22	1	5	4	152	16	5	125	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	307	312	126	309	304	160	126	0	0	168	0	0
Stage 1	136	136	-	168	168	-	-	-	-	-	-	-
Stage 2	171	176	-	141	136	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	645	603	924	643	609	885	1460	-	-	1410	-	-
Stage 1	867	784	-	834	759	-	-	-	-	-	-	-
Stage 2	831	753	-	862	784	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	637	599	924	632	605	885	1460	-	-	1410	-	-
Mov Cap-2 Maneuver	637	599	-	632	605	-	-	-	-	-	-	-
Stage 1	864	781	-	831	757	-	-	-	-	-	-	-
Stage 2	822	751	-	849	781	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10.6	0.2	0.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1460	-	-	825	668	1410	-	-
HCM Lane V/C Ratio	0.003	-	-	0.016	0.042	0.004	-	-
HCM Control Delay (s)	7.5	-	-	9.4	10.6	7.6	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	720	1	1	990	20	1	1	6	14	1	7
Future Vol, veh/h	1	720	1	1	990	20	1	1	6	14	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	690	-	-	265	-	285	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	758	1	1	1042	21	1	1	6	15	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1063	0	0	759	0	0	1285	1826	380	1426	1805	521
Stage 1	-	-	-	-	-	-	761	761	-	1044	1044	-
Stage 2	-	-	-	-	-	-	524	1065	-	382	761	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	651	-	-	848	-	-	122	76	618	96	78	500
Stage 1	-	-	-	-	-	-	364	412	-	245	304	-
Stage 2	-	-	-	-	-	-	504	297	-	612	412	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	651	-	-	848	-	-	119	76	618	94	78	500
Mov Cap-2 Maneuver	-	-	-	-	-	-	119	76	-	94	78	-
Stage 1	-	-	-	-	-	-	363	411	-	245	304	-
Stage 2	-	-	-	-	-	-	494	297	-	603	411	-

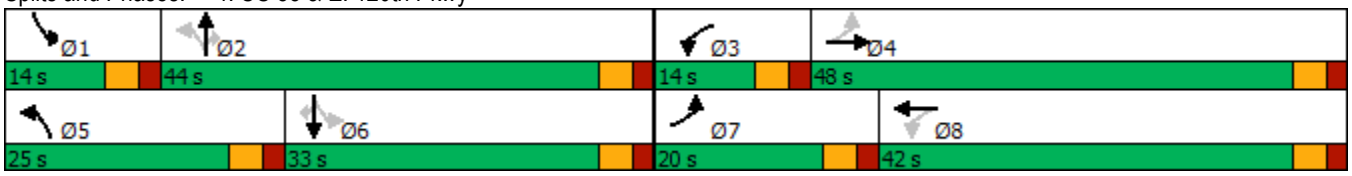
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	19.5	40.2
HCM LOS			C	E

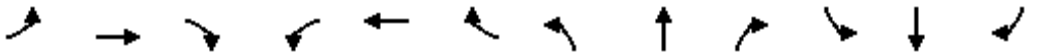
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	256	651	-	-	848	-	-	125
HCM Lane V/C Ratio	0.033	0.002	-	-	0.001	-	-	0.185
HCM Control Delay (s)	19.5	10.5	-	-	9.3	-	-	40.2
HCM Lane LOS	C	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	660	90	64	485	82	360	1160	115	181	825	315
Future Volume (vph)	185	660	90	64	485	82	360	1160	115	181	825	315
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	20.0	48.0		14.0	42.0		25.0	44.0	44.0	14.0	33.0	33.0
Total Split (%)	16.7%	40.0%		11.7%	35.0%		20.8%	36.7%	36.7%	11.7%	27.5%	27.5%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0		-2.0	-3.0	0.0	-2.0	-3.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	3.0		3.0	2.0	5.0	3.0	2.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	53.4	45.2	116.6	43.2	37.5	116.6	55.1	42.1	39.1	41.1	31.1	28.1
Actuated g/C Ratio	0.46	0.39	1.00	0.37	0.32	1.00	0.47	0.36	0.34	0.35	0.27	0.24
v/c Ratio	0.76	0.96	0.06	0.38	0.85	0.05	0.95	0.96	0.19	0.83	0.92	0.56
Control Delay	44.1	62.1	0.1	24.5	52.2	0.1	67.7	54.0	2.7	56.4	58.0	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.1	62.1	0.1	24.5	52.2	0.1	67.7	54.0	2.7	56.4	58.0	11.4
LOS	D	E	A	C	D	A	E	D	A	E	E	B
Approach Delay		52.6			42.6			53.4			46.7	
Approach LOS		D			D			D			D	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 116.6		
Natural Cycle: 90		
Control Type: Semi Act-Uncoord		
Maximum v/c Ratio: 0.96		
Intersection Signal Delay: 49.8	Intersection LOS: D	
Intersection Capacity Utilization 95.8%	ICU Level of Service F	
Analysis Period (min) 15		

Splits and Phases: 4: US 85 & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	660	90	64	485	82	360	1160	115	181	825	315
Future Volume (veh/h)	185	660	90	64	485	82	360	1160	115	181	825	315
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	195	695	0	67	511	0	379	1221	121	191	868	332
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	729		139	634		413	1293	536	241	954	385
Arrive On Green	0.09	0.39	0.00	0.04	0.34	0.00	0.19	0.36	0.34	0.10	0.27	0.24
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	195	695	0	67	511	0	379	1221	121	191	868	332
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.1	41.6	0.0	2.9	28.7	0.0	19.2	38.4	6.3	8.9	27.3	23.2
Cycle Q Clear(g_c), s	8.1	41.6	0.0	2.9	28.7	0.0	19.2	38.4	6.3	8.9	27.3	23.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	286	729		139	634		413	1293	536	241	954	385
V/C Ratio(X)	0.68	0.95		0.48	0.81		0.92	0.94	0.23	0.79	0.91	0.86
Avail Cap(c_a), veh/h	359	729		210	634		413	1293	536	241	954	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	34.2	0.0	30.5	34.7	0.0	31.8	35.6	27.4	30.7	40.8	41.9
Incr Delay (d2), s/veh	3.7	22.5	0.0	2.6	7.6	0.0	25.2	14.8	1.0	16.3	14.1	21.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	22.3	0.0	1.3	13.7	0.0	9.2	17.9	2.5	4.7	13.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	56.7	0.0	33.0	42.3	0.0	57.0	50.4	28.4	47.0	54.9	63.7
LnGrp LOS	C	E		C	D		E	D	C	D	D	E
Approach Vol, veh/h		890			578			1721			1391	
Approach Delay, s/veh		50.9			41.2			50.3			55.9	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	44.0	9.4	48.0	25.0	33.0	15.3	42.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	39.0	9.0	43.0	20.0	28.0	15.0	37.0
Max Q Clear Time (g_c+I1), s	10.9	40.4	4.9	43.6	21.2	29.3	10.1	30.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.5

Intersection Summary	
HCM 6th Ctrl Delay	51.0
HCM 6th LOS	D

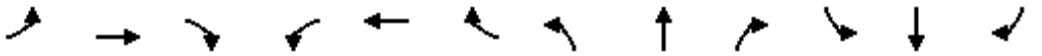
Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	56	617	75	7	657	8	106	63	22	59
Future Volume (vph)	56	617	75	7	657	8	106	63	22	59
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		2			6			8		4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	2	2	2	6	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0	40.0	40.0
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	93.5	93.5	93.5	93.5	93.5	93.5	16.5	16.5	16.5	16.5
Actuated g/C Ratio	0.78	0.78	0.78	0.78	0.78	0.78	0.14	0.14	0.14	0.14
v/c Ratio	0.12	0.25	0.07	0.01	0.26	0.01	0.75	0.32	0.13	0.42
Control Delay	4.7	4.3	1.1	4.3	4.4	1.0	77.0	43.5	44.2	37.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	4.3	1.1	4.3	4.4	1.0	77.0	43.5	44.2	37.5
LOS	A	A	A	A	A	A	E	D	D	D
Approach Delay		4.0			4.3			63.1		38.7
Approach LOS		A			A			E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 12.8	Intersection LOS: B
Intersection Capacity Utilization 47.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & E. 120th Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	617	75	7	657	8	106	63	12	22	59	44
Future Volume (veh/h)	56	617	75	7	657	8	106	63	12	22	59	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	678	82	8	722	9	116	69	13	24	65	48
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	556	2659	1186	546	2659	1186	202	258	49	230	168	124
Arrive On Green	0.75	0.75	0.75	0.75	0.75	0.75	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	725	3554	1585	706	3554	1585	1280	1530	288	1316	999	738
Grp Volume(v), veh/h	62	678	82	8	722	9	116	0	82	24	0	113
Grp Sat Flow(s),veh/h/ln	725	1777	1585	706	1777	1585	1280	0	1818	1316	0	1738
Q Serve(g_s), s	3.5	7.1	1.6	0.4	7.7	0.2	10.6	0.0	4.7	1.9	0.0	6.9
Cycle Q Clear(g_c), s	11.3	7.1	1.6	7.6	7.7	0.2	17.6	0.0	4.7	6.7	0.0	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		0.42
Lane Grp Cap(c), veh/h	556	2659	1186	546	2659	1186	202	0	306	230	0	293
V/C Ratio(X)	0.11	0.26	0.07	0.01	0.27	0.01	0.58	0.00	0.27	0.10	0.00	0.39
Avail Cap(c_a), veh/h	556	2659	1186	546	2659	1186	359	0	530	392	0	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.6	4.7	4.0	5.9	4.8	3.8	52.2	0.0	43.4	46.3	0.0	44.4
Incr Delay (d2), s/veh	0.4	0.2	0.1	0.0	0.3	0.0	2.6	0.0	0.5	0.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	0.5	0.1	2.3	0.0	3.5	0.0	2.2	0.6	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.0	4.9	4.1	5.9	5.0	3.8	54.8	0.0	43.9	46.5	0.0	45.2
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h		822			739			198			137	
Approach Delay, s/veh		5.0			5.0			50.3			45.4	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		94.8		25.2		94.8		25.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		75.0		35.0		75.0		35.0				
Max Q Clear Time (g_c+I1), s		13.3		8.9		9.7		19.6				
Green Ext Time (p_c), s		5.7		0.6		5.3		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			12.7									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	4	21	1	5	7	100	20	5	100	2
Future Vol, veh/h	1	1	4	21	1	5	7	100	20	5	100	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	335	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	4	23	1	5	8	109	22	5	109	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	259	267	110	259	257	120	111	0	0	131	0	0
Stage 1	120	120	-	136	136	-	-	-	-	-	-	-
Stage 2	139	147	-	123	121	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	694	639	943	694	647	931	1479	-	-	1454	-	-
Stage 1	884	796	-	867	784	-	-	-	-	-	-	-
Stage 2	864	775	-	881	796	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	684	634	943	685	642	931	1479	-	-	1454	-	-
Mov Cap-2 Maneuver	684	634	-	685	642	-	-	-	-	-	-	-
Stage 1	880	794	-	863	780	-	-	-	-	-	-	-
Stage 2	853	771	-	873	794	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10.2	0.4	0.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1479	-	-	824	718	1454	-	-
HCM Lane V/C Ratio	0.005	-	-	0.008	0.041	0.004	-	-
HCM Control Delay (s)	7.4	-	-	9.4	10.2	7.5	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	626	7	3	650	38	2	1	3	12	1	16
Future Vol, veh/h	14	626	7	3	650	38	2	1	3	12	1	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	690	-	-	265	-	285	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	688	8	3	714	42	2	1	3	13	1	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	756	0	0	696	0	0	1086	1484	348	1095	1446	357
Stage 1	-	-	-	-	-	-	722	722	-	720	720	-
Stage 2	-	-	-	-	-	-	364	762	-	375	726	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	851	-	-	896	-	-	171	124	648	168	131	639
Stage 1	-	-	-	-	-	-	384	429	-	385	430	-
Stage 2	-	-	-	-	-	-	627	412	-	618	428	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	851	-	-	896	-	-	163	121	648	163	128	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	163	121	-	163	128	-
Stage 1	-	-	-	-	-	-	377	421	-	378	429	-
Stage 2	-	-	-	-	-	-	606	411	-	602	420	-

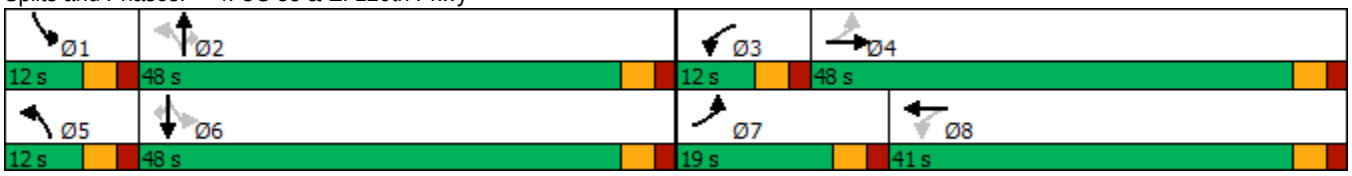
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	20.6	20
HCM LOS			C	C

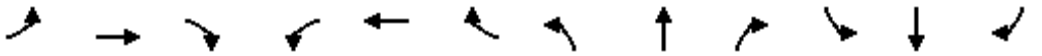
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	238	851	-	-	896	-	-	272
HCM Lane V/C Ratio	0.028	0.018	-	-	0.004	-	-	0.117
HCM Control Delay (s)	20.6	9.3	-	-	9	-	-	20
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	496	110	63	486	45	125	905	82	81	1000	158
Future Volume (vph)	208	496	110	63	486	45	125	905	82	81	1000	158
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	19.0	48.0		12.0	41.0		12.0	48.0	48.0	12.0	48.0	48.0
Total Split (%)	15.8%	40.0%		10.0%	34.2%		10.0%	40.0%	40.0%	10.0%	40.0%	40.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0		-2.0	-3.0	0.0	-2.0	-3.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	3.0		3.0	2.0	5.0	3.0	2.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	52.5	45.1	117.6	40.6	35.8	117.6	54.7	48.6	45.6	53.8	46.1	43.0
Actuated g/C Ratio	0.45	0.38	1.00	0.35	0.30	1.00	0.47	0.41	0.39	0.46	0.39	0.37
v/c Ratio	0.82	0.73	0.07	0.31	0.90	0.03	0.66	0.65	0.12	0.36	0.76	0.24
Control Delay	51.8	39.0	0.1	23.1	60.0	0.0	37.5	31.6	0.4	21.7	35.8	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	39.0	0.1	23.1	60.0	0.0	37.5	31.6	0.4	21.7	35.8	4.9
LOS	D	D	A	C	E	A	D	C	A	C	D	A
Approach Delay		37.0			51.6			30.0			31.0	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.6	
Natural Cycle: 75	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 35.3	Intersection LOS: D
Intersection Capacity Utilization 85.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: US 85 & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	208	496	110	63	486	45	125	905	82	81	1000	158
Future Volume (veh/h)	208	496	110	63	486	45	125	905	82	81	1000	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	219	522	0	66	512	0	132	953	86	85	1053	166
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	691		226	573		263	1488	622	276	1430	596
Arrive On Green	0.10	0.37	0.00	0.04	0.31	0.00	0.08	0.42	0.39	0.06	0.40	0.38
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	219	522	0	66	512	0	132	953	86	85	1053	166
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.5	27.9	0.0	3.0	29.9	0.0	4.8	24.3	4.0	3.1	28.8	8.3
Cycle Q Clear(g_c), s	9.5	27.9	0.0	3.0	29.9	0.0	4.8	24.3	4.0	3.1	28.8	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	691		226	573		263	1488	622	276	1430	596
V/C Ratio(X)	0.82	0.76		0.29	0.89		0.50	0.64	0.14	0.31	0.74	0.28
Avail Cap(c_a), veh/h	305	736		267	622		268	1488	622	310	1430	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	31.5	0.0	28.9	37.9	0.0	22.3	26.4	22.3	20.6	29.0	24.8
Incr Delay (d2), s/veh	14.2	4.2	0.0	0.7	14.6	0.0	1.5	2.1	0.5	0.6	3.4	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	12.7	0.0	1.3	15.4	0.0	1.9	9.8	1.5	1.2	11.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	35.7	0.0	29.6	52.5	0.0	23.7	28.5	22.8	21.2	32.4	26.0
LnGrp LOS	D	D		C	D		C	C	C	C	C	C
Approach Vol, veh/h		741			578			1171			1304	
Approach Delay, s/veh		37.6			49.9			27.6			30.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	49.9	9.4	45.2	11.7	48.0	16.6	38.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	43.0	7.0	43.0	7.0	43.0	14.0	36.0
Max Q Clear Time (g_c+I1), s	5.1	26.3	5.0	29.9	6.8	30.8	11.5	31.9
Green Ext Time (p_c), s	0.0	5.6	0.0	2.5	0.0	5.5	0.1	1.1

Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

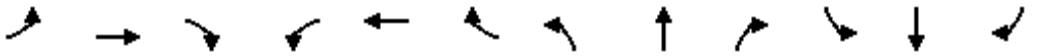
Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	57	712	130	13	982	16	174	86	28	48
Future Volume (vph)	57	712	130	13	982	16	174	86	28	48
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		2			6			8		4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	2	2	2	6	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0	40.0	40.0
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	86.5	86.5	86.5	86.5	86.5	86.5	23.5	23.5	23.5	23.5
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.72	0.72	0.20	0.20	0.20	0.20
v/c Ratio	0.18	0.29	0.11	0.03	0.40	0.01	0.83	0.26	0.12	0.34
Control Delay	8.5	7.0	1.5	6.8	7.9	2.9	74.8	39.3	37.4	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	7.0	1.5	6.8	7.9	2.9	74.8	39.3	37.4	21.3
LOS	A	A	A	A	A	A	E	D	D	C
Approach Delay		6.3			7.8			62.5		24.2
Approach LOS		A			A			E		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 65.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & E. 120th Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	712	130	13	982	16	174	86	6	28	48	79
Future Volume (veh/h)	57	712	130	13	982	16	174	86	6	28	48	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	742	135	14	1023	17	181	90	6	29	50	82
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	365	2445	1091	443	2445	1091	265	396	26	302	146	239
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	542	3554	1585	632	3554	1585	1258	1734	116	1300	637	1045
Grp Volume(v), veh/h	59	742	135	14	1023	17	181	0	96	29	0	132
Grp Sat Flow(s),veh/h/ln	542	1777	1585	632	1777	1585	1258	0	1850	1300	0	1682
Q Serve(g_s), s	6.4	9.9	3.5	1.1	15.1	0.4	16.9	0.0	5.1	2.2	0.0	7.9
Cycle Q Clear(g_c), s	21.6	9.9	3.5	11.0	15.1	0.4	24.8	0.0	5.1	7.3	0.0	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		0.62
Lane Grp Cap(c), veh/h	365	2445	1091	443	2445	1091	265	0	423	302	0	385
V/C Ratio(X)	0.16	0.30	0.12	0.03	0.42	0.02	0.68	0.00	0.23	0.10	0.00	0.34
Avail Cap(c_a), veh/h	365	2445	1091	443	2445	1091	344	0	539	384	0	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.9	7.4	6.4	9.5	8.2	5.9	49.1	0.0	37.7	40.6	0.0	38.7
Incr Delay (d2), s/veh	0.9	0.3	0.2	0.1	0.5	0.0	3.7	0.0	0.3	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.3	1.1	0.2	5.1	0.1	5.5	0.0	2.3	0.7	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	7.7	6.6	9.7	8.7	5.9	52.8	0.0	37.9	40.8	0.0	39.3
LnGrp LOS	B	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h		936			1054			277			161	
Approach Delay, s/veh		7.9			8.7			47.6			39.5	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		87.6		32.4		87.6		32.4				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		75.0		35.0		75.0		35.0				
Max Q Clear Time (g_c+I1), s		23.6		9.9		17.1		26.8				
Green Ext Time (p_c), s		6.9		0.8		8.7		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	9	31	1	5	4	140	15	5	115	1
Future Vol, veh/h	2	1	9	31	1	5	4	140	15	5	115	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	335	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	10	34	1	5	4	152	16	5	125	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	307	312	126	309	304	160	126	0	0	168	0	0
Stage 1	136	136	-	168	168	-	-	-	-	-	-	-
Stage 2	171	176	-	141	136	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	645	603	924	643	609	885	1460	-	-	1410	-	-
Stage 1	867	784	-	834	759	-	-	-	-	-	-	-
Stage 2	831	753	-	862	784	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	637	599	924	632	605	885	1460	-	-	1410	-	-
Mov Cap-2 Maneuver	637	599	-	632	605	-	-	-	-	-	-	-
Stage 1	864	781	-	831	757	-	-	-	-	-	-	-
Stage 2	822	751	-	849	781	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10.8	0.2	0.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1460	-	-	825	657	1410	-	-
HCM Lane V/C Ratio	0.003	-	-	0.016	0.061	0.004	-	-
HCM Control Delay (s)	7.5	-	-	9.4	10.8	7.6	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	731	1	1	990	31	1	1	6	14	1	20
Future Vol, veh/h	14	731	1	1	990	31	1	1	6	14	1	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	690	-	-	265	-	285	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	769	1	1	1042	33	1	1	6	15	1	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1075	0	0	770	0	0	1324	1877	385	1459	1844	521
Stage 1	-	-	-	-	-	-	800	800	-	1044	1044	-
Stage 2	-	-	-	-	-	-	524	1077	-	415	800	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	644	-	-	840	-	-	114	71	613	90	74	500
Stage 1	-	-	-	-	-	-	345	395	-	245	304	-
Stage 2	-	-	-	-	-	-	504	293	-	585	395	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	644	-	-	840	-	-	106	69	613	86	72	500
Mov Cap-2 Maneuver	-	-	-	-	-	-	106	69	-	86	72	-
Stage 1	-	-	-	-	-	-	337	386	-	239	304	-
Stage 2	-	-	-	-	-	-	481	293	-	564	386	-

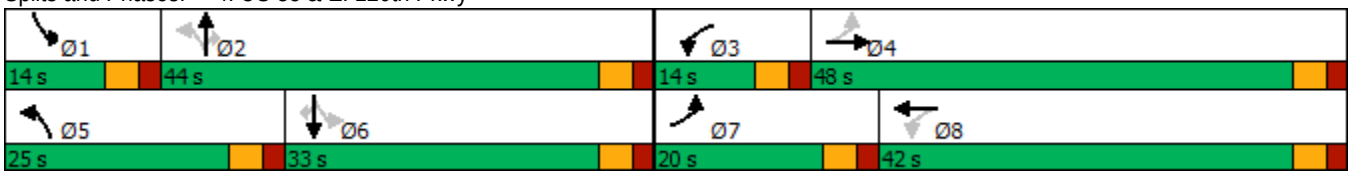
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	20.7	33.6
HCM LOS			C	D

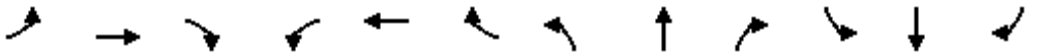
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	237	644	-	-	840	-	-	162
HCM Lane V/C Ratio	0.036	0.023	-	-	0.001	-	-	0.227
HCM Control Delay (s)	20.7	10.7	-	-	9.3	-	-	33.6
HCM Lane LOS	C	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	188	666	92	64	491	82	362	1160	115	181	825	318
Future Volume (vph)	188	666	92	64	491	82	362	1160	115	181	825	318
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	20.0	48.0		14.0	42.0		25.0	44.0	44.0	14.0	33.0	33.0
Total Split (%)	16.7%	40.0%		11.7%	35.0%		20.8%	36.7%	36.7%	11.7%	27.5%	27.5%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0		-2.0	-3.0	0.0	-2.0	-3.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	3.0		3.0	2.0	5.0	3.0	2.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	53.5	45.2	116.7	43.1	37.5	116.7	55.1	42.1	39.1	41.1	31.1	28.1
Actuated g/C Ratio	0.46	0.39	1.00	0.37	0.32	1.00	0.47	0.36	0.34	0.35	0.27	0.24
v/c Ratio	0.76	0.97	0.06	0.38	0.86	0.05	0.96	0.96	0.19	0.83	0.92	0.56
Control Delay	44.9	63.7	0.1	24.4	53.5	0.1	68.9	54.1	2.7	56.4	58.2	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	63.7	0.1	24.4	53.5	0.1	68.9	54.1	2.7	56.4	58.2	11.9
LOS	D	E	A	C	D	A	E	D	A	E	E	B
Approach Delay		53.8			43.7			53.8			46.8	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.7	
Natural Cycle: 90	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 50.3	Intersection LOS: D
Intersection Capacity Utilization 96.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: US 85 & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	666	92	64	491	82	362	1160	115	181	825	318
Future Volume (veh/h)	188	666	92	64	491	82	362	1160	115	181	825	318
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	198	701	0	67	517	0	381	1221	121	191	868	335
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	283	729		136	632		413	1293	536	241	954	385
Arrive On Green	0.09	0.39	0.00	0.04	0.34	0.00	0.19	0.36	0.34	0.10	0.27	0.24
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	198	701	0	67	517	0	381	1221	121	191	868	335
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.3	42.2	0.0	2.9	29.2	0.0	19.4	38.4	6.3	8.9	27.3	23.4
Cycle Q Clear(g_c), s	8.3	42.2	0.0	2.9	29.2	0.0	19.4	38.4	6.3	8.9	27.3	23.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	729		136	632		413	1293	536	241	954	385
V/C Ratio(X)	0.70	0.96		0.49	0.82		0.92	0.94	0.23	0.79	0.91	0.87
Avail Cap(c_a), veh/h	353	729		206	632		413	1293	536	241	954	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	34.4	0.0	30.6	35.0	0.0	31.9	35.6	27.4	30.7	40.8	42.0
Incr Delay (d2), s/veh	4.4	24.1	0.0	2.8	8.3	0.0	26.1	14.8	1.0	16.3	14.1	22.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	22.8	0.0	1.3	14.1	0.0	9.3	17.9	2.5	4.7	13.0	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.1	58.5	0.0	33.3	43.3	0.0	58.1	50.4	28.4	47.0	54.9	64.7
LnGrp LOS	C	E		C	D		E	D	C	D	D	E
Approach Vol, veh/h		899			584			1723			1394	
Approach Delay, s/veh		52.5			42.2			50.5			56.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	44.0	9.4	48.0	25.0	33.0	15.4	42.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	39.0	9.0	43.0	20.0	28.0	15.0	37.0
Max Q Clear Time (g_c+I1), s	10.9	40.4	4.9	44.2	21.4	29.3	10.3	31.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.5

Intersection Summary	
HCM 6th Ctrl Delay	51.6
HCM 6th LOS	D

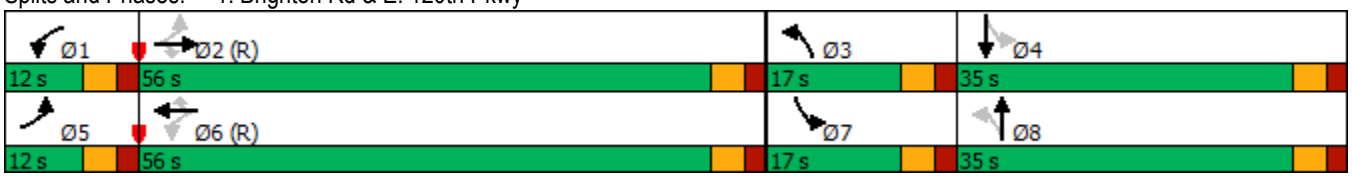
Notes

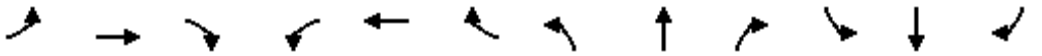
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	95	1025	125	10	1100	15	180	105	20	100
Future Volume (vph)	95	1025	125	10	1100	15	180	105	20	100
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	15.0	5.0	15.0
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	10.0	20.0
Total Split (s)	12.0	56.0	56.0	12.0	56.0	56.0	17.0	35.0	17.0	35.0
Total Split (%)	10.0%	46.7%	46.7%	10.0%	46.7%	46.7%	14.2%	29.2%	14.2%	29.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	75.3	73.1	73.1	67.5	61.7	61.7	34.4	27.3	24.5	17.9
Actuated g/C Ratio	0.63	0.61	0.61	0.56	0.51	0.51	0.29	0.23	0.20	0.15
v/c Ratio	0.42	0.52	0.13	0.04	0.66	0.02	0.69	0.33	0.08	0.67
Control Delay	15.0	15.8	2.8	10.4	24.8	0.1	46.7	39.6	30.0	52.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	15.8	2.8	10.4	24.8	0.1	46.7	39.6	30.0	52.2
LOS	B	B	A	B	C	A	D	D	C	D
Approach Delay		14.5			24.3			43.8		49.9
Approach LOS		B			C			D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1025	125	10	1100	15	180	105	20	20	100	75
Future Volume (veh/h)	95	1025	125	10	1100	15	180	105	20	20	100	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	1126	137	11	1209	16	198	115	22	22	110	82
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	2092	933	258	1994	890	267	321	61	264	131	98
Arrive On Green	0.04	0.59	0.59	0.01	0.56	0.56	0.10	0.21	0.21	0.02	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1526	292	1781	995	742
Grp Volume(v), veh/h	104	1126	137	11	1209	16	198	0	137	22	0	192
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1818	1781	0	1737
Q Serve(g_s), s	2.9	22.9	4.7	0.3	27.1	0.5	11.3	0.0	7.7	1.3	0.0	12.9
Cycle Q Clear(g_c), s	2.9	22.9	4.7	0.3	27.1	0.5	11.3	0.0	7.7	1.3	0.0	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		0.43
Lane Grp Cap(c), veh/h	284	2092	933	258	1994	890	267	0	382	264	0	229
V/C Ratio(X)	0.37	0.54	0.15	0.04	0.61	0.02	0.74	0.00	0.36	0.08	0.00	0.84
Avail Cap(c_a), veh/h	316	2092	933	339	1994	890	267	0	454	403	0	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.1	14.9	11.1	12.6	17.5	11.7	39.2	0.0	40.5	43.5	0.0	50.9
Incr Delay (d2), s/veh	0.8	1.0	0.3	0.1	1.4	0.0	10.7	0.0	0.6	0.1	0.0	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	8.7	1.7	0.1	10.5	0.2	5.7	0.0	3.5	0.6	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	15.8	11.4	12.7	18.9	11.7	49.9	0.0	41.1	43.7	0.0	58.8
LnGrp LOS	B	B	B	B	B	B	D	A	D	D	A	E
Approach Vol, veh/h		1367			1236			335			214	
Approach Delay, s/veh		15.3			18.7			46.3			57.3	
Approach LOS		B			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	75.7	17.0	20.8	9.8	72.3	7.6	30.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	51.0	12.0	30.0	7.0	51.0	12.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	24.9	13.3	14.9	4.9	29.1	3.3	9.7
Green Ext Time (p_c), s	0.0	8.9	0.0	0.9	0.0	8.6	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑		↰	↑	
Traffic Vol, veh/h	1	1	4	10	1	5	7	190	20	5	180	2
Future Vol, veh/h	1	1	4	10	1	5	7	190	20	5	180	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	335	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	4	11	1	5	8	207	22	5	196	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	444	452	197	444	442	218	198	0	0	229	0	0
Stage 1	207	207	-	234	234	-	-	-	-	-	-	-
Stage 2	237	245	-	210	208	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	576	534	844	576	542	908	1375	-	-	1364	-	-
Stage 1	795	731	-	839	744	-	-	-	-	-	-	-
Stage 2	835	735	-	792	730	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	568	529	844	568	537	908	1375	-	-	1364	-	-
Mov Cap-2 Maneuver	568	529	-	568	537	-	-	-	-	-	-	-
Stage 1	790	728	-	834	740	-	-	-	-	-	-	-
Stage 2	824	730	-	784	727	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10.8	0.2	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1375	-	-	715	641	1364	-	-
HCM Lane V/C Ratio	0.006	-	-	0.009	0.027	0.004	-	-
HCM Control Delay (s)	7.6	-	-	10.1	10.8	7.7	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1060	7	3	1115	30	2	1	3	15	1	5
Future Vol, veh/h	1	1060	7	3	1115	30	2	1	3	15	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	690	-	-	265	-	285	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1165	8	3	1225	33	2	1	3	16	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1258	0	0	1173	0	0	1790	2435	587	1816	2406	613
Stage 1	-	-	-	-	-	-	1171	1171	-	1231	1231	-
Stage 2	-	-	-	-	-	-	619	1264	-	585	1175	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	549	-	-	591	-	-	51	31	453	49	33	435
Stage 1	-	-	-	-	-	-	205	265	-	188	248	-
Stage 2	-	-	-	-	-	-	443	239	-	464	264	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	549	-	-	591	-	-	49	31	453	47	33	435
Mov Cap-2 Maneuver	-	-	-	-	-	-	49	31	-	47	33	-
Stage 1	-	-	-	-	-	-	205	264	-	188	247	-
Stage 2	-	-	-	-	-	-	433	238	-	458	263	-

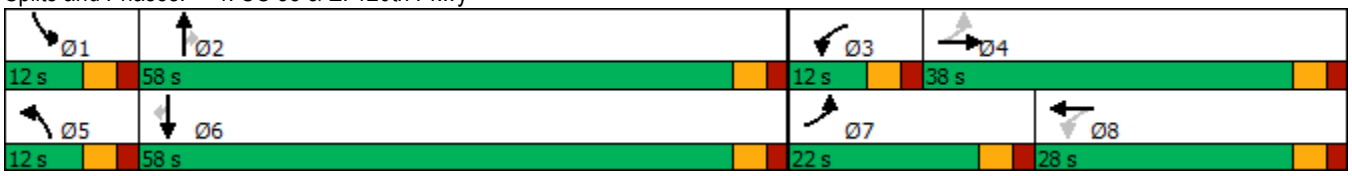
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	57.6	103.3
HCM LOS			F	F

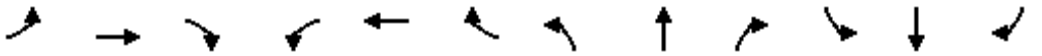
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	75	549	-	-	591	-	-	58
HCM Lane V/C Ratio	0.088	0.002	-	-	0.006	-	-	0.398
HCM Control Delay (s)	57.6	11.6	-	-	11.1	-	-	103.3
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	1.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	350	835	185	105	815	75	210	1535	140	140	1700	260
Future Volume (vph)	350	835	185	105	815	75	210	1535	140	140	1700	260
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	22.0	38.0		12.0	28.0		12.0	58.0	58.0	12.0	58.0	58.0
Total Split (%)	18.3%	31.7%		10.0%	23.3%		10.0%	48.3%	48.3%	10.0%	48.3%	48.3%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0		-2.0	-3.0	0.0	-2.0	-3.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	3.0		3.0	2.0	5.0	3.0	2.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	45.0	35.0	120.0	30.0	25.0	120.0	9.0	56.0	53.0	9.0	56.0	53.0
Actuated g/C Ratio	0.38	0.29	1.00	0.25	0.21	1.00	0.08	0.47	0.44	0.08	0.47	0.44
v/c Ratio	1.18	0.85	0.12	0.67	1.16	0.05	0.86	0.98	0.19	0.57	1.08	0.32
Control Delay	140.2	49.3	0.2	48.4	130.7	0.1	84.5	49.5	3.3	63.0	80.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	140.2	49.3	0.2	48.4	130.7	0.1	84.5	49.5	3.3	63.0	80.1	3.4
LOS	F	D	A	D	F	A	F	D	A	E	F	A
Approach Delay		65.9			112.1			49.9			69.5	
Approach LOS		E			F			D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.18	
Intersection Signal Delay: 69.6	Intersection LOS: E
Intersection Capacity Utilization 109.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: US 85 & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	835	185	105	815	75	210	1535	140	140	1700	260
Future Volume (veh/h)	350	835	185	105	815	75	210	1535	140	140	1700	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	368	879	0	111	858	0	221	1616	147	147	1789	274
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	1036		191	740		259	1662	702	256	1658	700
Arrive On Green	0.14	0.29	0.00	0.06	0.21	0.00	0.08	0.47	0.44	0.07	0.47	0.44
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	368	879	0	111	858	0	221	1616	147	147	1789	274
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	17.0	27.9	0.0	6.0	25.0	0.0	7.6	53.3	6.8	4.9	56.0	14.0
Cycle Q Clear(g_c), s	17.0	27.9	0.0	6.0	25.0	0.0	7.6	53.3	6.8	4.9	56.0	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	312	1036		191	740		259	1662	702	256	1658	700
V/C Ratio(X)	1.18	0.85		0.58	1.16		0.85	0.97	0.21	0.57	1.08	0.39
Avail Cap(c_a), veh/h	312	1036		191	740		259	1662	702	259	1658	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	40.0	0.0	37.6	47.5	0.0	54.8	31.2	20.5	53.7	32.0	22.6
Incr Delay (d2), s/veh	108.4	6.7	0.0	4.4	86.2	0.0	23.0	16.4	0.7	3.0	46.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	12.7	0.0	2.8	19.5	0.0	4.0	24.1	2.6	2.2	32.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	143.3	46.7	0.0	42.1	133.7	0.0	77.8	47.6	21.2	56.7	78.7	24.3
LnGrp LOS	F	D		D	F		E	D	C	E	F	C
Approach Vol, veh/h		1247			969			1984			2210	
Approach Delay, s/veh		75.2			123.2			49.0			70.5	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	58.1	12.0	38.0	12.0	58.0	22.0	28.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	53.0	7.0	33.0	7.0	53.0	17.0	23.0
Max Q Clear Time (g_c+I1), s	6.9	55.3	8.0	29.9	9.6	58.0	19.0	27.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	72.7
HCM 6th LOS	E

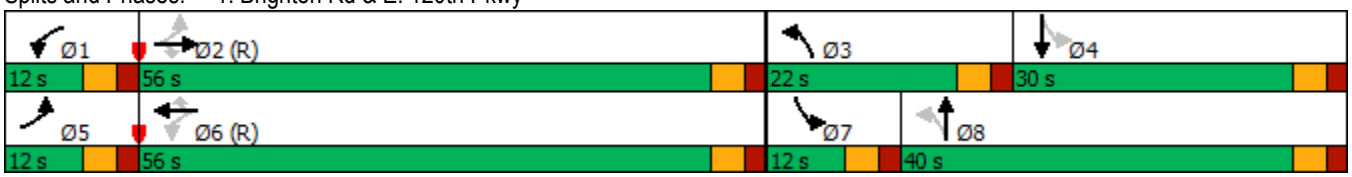
Notes

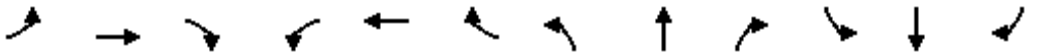
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	95	1195	220	20	1650	30	295	145	30	80
Future Volume (vph)	95	1195	220	20	1650	30	295	145	30	80
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	10.0	20.0
Total Split (s)	12.0	56.0	56.0	12.0	56.0	56.0	22.0	40.0	12.0	30.0
Total Split (%)	10.0%	46.7%	46.7%	10.0%	46.7%	46.7%	18.3%	33.3%	10.0%	25.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	69.7	66.3	66.3	64.4	58.2	58.2	39.0	31.8	23.6	17.1
Actuated g/C Ratio	0.58	0.55	0.55	0.54	0.48	0.48	0.32	0.26	0.20	0.14
v/c Ratio	0.56	0.64	0.23	0.10	1.00	0.04	0.92	0.33	0.12	0.76
Control Delay	30.5	22.7	3.2	13.3	53.8	0.1	66.1	37.0	27.4	51.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	22.7	3.2	13.3	53.8	0.1	66.1	37.0	27.4	51.0
LOS	C	C	A	B	D	A	E	D	C	D
Approach Delay		20.4			52.4			56.1		48.1
Approach LOS		C			D			E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 40.2	Intersection LOS: D
Intersection Capacity Utilization 96.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1195	220	20	1650	30	295	145	10	30	80	135
Future Volume (veh/h)	95	1195	220	20	1650	30	295	145	10	30	80	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	1245	229	21	1719	31	307	151	10	31	83	141
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	1841	821	190	1764	787	338	464	31	295	95	162
Arrive On Green	0.04	0.52	0.52	0.02	0.50	0.50	0.14	0.27	0.27	0.03	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1735	115	1781	623	1058
Grp Volume(v), veh/h	99	1245	229	21	1719	31	307	0	161	31	0	224
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1850	1781	0	1680
Q Serve(g_s), s	3.3	31.2	9.8	0.7	56.6	1.2	17.0	0.0	8.4	1.7	0.0	15.6
Cycle Q Clear(g_c), s	3.3	31.2	9.8	0.7	56.6	1.2	17.0	0.0	8.4	1.7	0.0	15.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		0.63
Lane Grp Cap(c), veh/h	142	1841	821	190	1764	787	338	0	495	295	0	257
V/C Ratio(X)	0.70	0.68	0.28	0.11	0.97	0.04	0.91	0.00	0.33	0.11	0.00	0.87
Avail Cap(c_a), veh/h	171	1841	821	256	1764	787	338	0	539	351	0	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.2	21.5	16.3	17.8	29.5	15.5	36.2	0.0	35.3	41.1	0.0	49.7
Incr Delay (d2), s/veh	9.2	2.0	0.8	0.3	16.1	0.1	27.1	0.0	0.4	0.2	0.0	16.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	12.5	3.7	0.3	26.0	0.5	9.9	0.0	3.8	0.8	0.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	23.5	17.1	18.0	45.6	15.6	63.3	0.0	35.6	41.3	0.0	66.0
LnGrp LOS	D	C	B	B	D	B	E	A	D	D	A	E
Approach Vol, veh/h		1573			1771			468			255	
Approach Delay, s/veh		23.4			44.8			53.8			63.0	
Approach LOS		C			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	67.2	22.0	23.3	10.1	64.6	8.2	37.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	51.0	17.0	25.0	7.0	51.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	2.7	33.2	19.0	17.6	5.3	58.6	3.7	10.4
Green Ext Time (p_c), s	0.0	8.8	0.0	0.7	0.0	0.0	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	38.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↱		↰	↱	
Traffic Vol, veh/h	2	1	9	20	1	5	4	250	15	5	215	1
Future Vol, veh/h	2	1	9	20	1	5	4	250	15	5	215	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	335	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	10	22	1	5	4	272	16	5	234	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	536	541	235	538	533	280	235	0	0	288	0	0
Stage 1	245	245	-	288	288	-	-	-	-	-	-	-
Stage 2	291	296	-	250	245	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	511	480	804	509	486	868	1332	-	-	1304	-	-
Stage 1	759	703	-	811	716	-	-	-	-	-	-	-
Stage 2	807	709	-	754	703	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	504	477	804	500	483	868	1332	-	-	1304	-	-
Mov Cap-2 Maneuver	504	477	-	500	483	-	-	-	-	-	-	-
Stage 1	757	700	-	808	714	-	-	-	-	-	-	-
Stage 2	798	707	-	741	700	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	12	0.1	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1332	-	-	695	544	1304	-	-
HCM Lane V/C Ratio	0.003	-	-	0.019	0.052	0.004	-	-
HCM Control Delay (s)	7.7	-	-	10.3	12	7.8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1235	1	1	1690	25	1	1	6	15	1	10
Future Vol, veh/h	2	1235	1	1	1690	25	1	1	6	15	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	690	-	-	265	-	285	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1300	1	1	1779	26	1	1	6	16	1	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1805	0	0	1301	0	0	2197	3112	651	2436	3086	890
Stage 1	-	-	-	-	-	-	1305	1305	-	1781	1781	-
Stage 2	-	-	-	-	-	-	892	1807	-	655	1305	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	337	-	-	528	-	-	25	11	411	16	12	286
Stage 1	-	-	-	-	-	-	169	228	-	85	133	-
Stage 2	-	-	-	-	-	-	303	129	-	421	228	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	337	-	-	528	-	-	22	11	411	~ 15	12	286
Mov Cap-2 Maneuver	-	-	-	-	-	-	22	11	-	~ 15	12	-
Stage 1	-	-	-	-	-	-	168	227	-	84	133	-
Stage 2	-	-	-	-	-	-	289	129	-	410	227	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	85.3	$ 496.9
HCM LOS			F	F

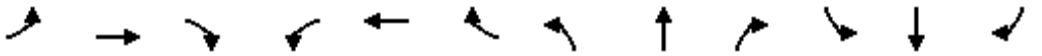
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	53	337	-	-	528	-	-	23
HCM Lane V/C Ratio	0.159	0.006	-	-	0.002	-	-	1.19
HCM Control Delay (s)	85.3	15.8	-	-	11.8	-	-	$ 496.9
HCM Lane LOS	F	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	3.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	315	1120	150	105	825	140	600	1975	195	310	1400	535
Future Volume (vph)	315	1120	150	105	825	140	600	1975	195	310	1400	535
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	19.0	33.0		12.0	26.0		24.0	60.0	60.0	15.0	51.0	51.0
Total Split (%)	15.8%	27.5%		10.0%	21.7%		20.0%	50.0%	50.0%	12.5%	42.5%	42.5%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0		-2.0	-3.0	0.0	-2.0	-3.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	3.0		3.0	2.0	5.0	3.0	2.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	40.0	30.0	120.0	28.0	23.0	120.0	21.0	58.0	55.0	12.0	49.0	46.0
Actuated g/C Ratio	0.33	0.25	1.00	0.23	0.19	1.00	0.18	0.48	0.46	0.10	0.41	0.38
v/c Ratio	1.24	1.33	0.10	0.67	1.28	0.09	1.05	1.22	0.25	0.95	1.02	0.75
Control Delay	165.8	194.4	0.1	51.3	177.1	0.1	99.2	132.4	3.9	91.5	64.3	26.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	165.8	194.4	0.1	51.3	177.1	0.1	99.2	132.4	3.9	91.5	64.3	26.1
LOS	F	F	A	D	F	A	F	F	A	F	E	C
Approach Delay		170.4			141.6			116.2			59.0	
Approach LOS		F			F			F			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 140	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 114.2	Intersection LOS: F
Intersection Capacity Utilization 117.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: US 85 & E. 120th Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	315	1120	150	105	825	140	600	1975	195	310	1400	535
Future Volume (veh/h)	315	1120	150	105	825	140	600	1975	195	310	1400	535
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	332	1179	0	111	868	0	632	2079	205	326	1474	563
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	888		164	681		605	1718	726	346	1451	608
Arrive On Green	0.12	0.25	0.00	0.06	0.19	0.00	0.17	0.48	0.46	0.10	0.41	0.38
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	332	1179	0	111	868	0	632	2079	205	326	1474	563
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	14.0	30.0	0.0	6.1	23.0	0.0	21.0	58.0	9.7	11.2	49.0	40.8
Cycle Q Clear(g_c), s	14.0	30.0	0.0	6.1	23.0	0.0	21.0	58.0	9.7	11.2	49.0	40.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	888		164	681		605	1718	726	346	1451	608
V/C Ratio(X)	1.24	1.33		0.68	1.27		1.05	1.21	0.28	0.94	1.02	0.93
Avail Cap(c_a), veh/h	268	888		164	681		605	1718	726	346	1451	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	45.0	0.0	39.4	48.5	0.0	49.5	31.0	20.2	53.7	35.5	35.4
Incr Delay (d2), s/veh	135.5	155.0	0.0	10.6	134.7	0.0	48.9	100.4	1.0	33.9	27.6	22.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	31.8	0.0	3.1	22.6	0.0	12.7	45.9	3.6	6.3	24.8	18.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	172.2	200.0	0.0	50.1	183.2	0.0	98.4	131.4	21.2	87.6	63.1	57.7
LnGrp LOS	F	F		D	F		F	F	C	F	F	E
Approach Vol, veh/h		1511			979			2916			2363	
Approach Delay, s/veh		193.9			168.1			116.5			65.2	
Approach LOS		F			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	60.0	12.0	33.0	24.0	51.0	19.0	26.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	55.0	7.0	28.0	19.0	46.0	14.0	21.0
Max Q Clear Time (g_c+I1), s	13.2	60.0	8.1	32.0	23.0	51.0	16.0	25.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	122.4
HCM 6th LOS	F

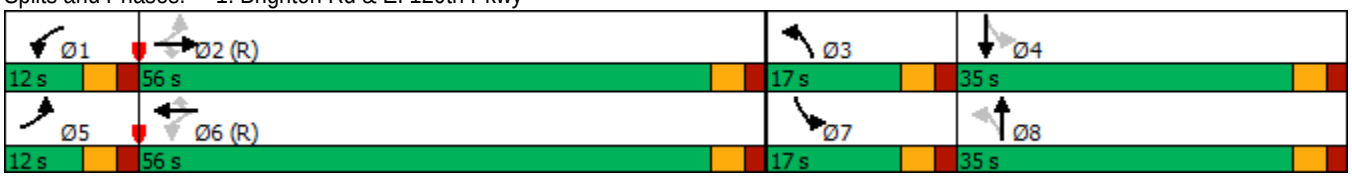
Notes

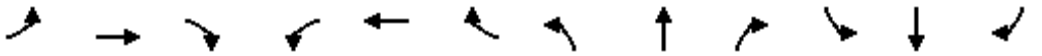
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	95	1037	125	11	1112	15	180	105	31	100
Future Volume (vph)	95	1037	125	11	1112	15	180	105	31	100
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	15.0	5.0	15.0
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	10.0	20.0
Total Split (s)	12.0	56.0	56.0	12.0	56.0	56.0	17.0	35.0	17.0	35.0
Total Split (%)	10.0%	46.7%	46.7%	10.0%	46.7%	46.7%	14.2%	29.2%	14.2%	29.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	75.0	70.8	70.8	67.4	61.6	61.6	34.1	26.9	25.1	17.9
Actuated g/C Ratio	0.62	0.59	0.59	0.56	0.51	0.51	0.28	0.22	0.21	0.15
v/c Ratio	0.43	0.55	0.14	0.05	0.67	0.02	0.69	0.33	0.12	0.67
Control Delay	15.2	17.6	3.0	10.5	25.1	0.1	47.0	40.3	30.7	52.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	17.6	3.0	10.5	25.1	0.1	47.0	40.3	30.7	52.2
LOS	B	B	A	B	C	A	D	D	C	D
Approach Delay		16.0			24.6			44.3		49.0
Approach LOS		B			C			D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 24.7	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1037	125	11	1112	15	180	105	21	31	100	75
Future Volume (veh/h)	95	1037	125	11	1112	15	180	105	21	31	100	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	1140	137	12	1222	16	198	115	23	34	110	82
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	2089	932	255	1994	890	267	308	62	275	131	98
Arrive On Green	0.04	0.59	0.59	0.01	0.56	0.56	0.10	0.20	0.20	0.03	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1513	303	1781	995	742
Grp Volume(v), veh/h	104	1140	137	12	1222	16	198	0	138	34	0	192
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1816	1781	0	1737
Q Serve(g_s), s	3.0	23.4	4.7	0.3	27.6	0.5	11.3	0.0	7.9	2.0	0.0	12.9
Cycle Q Clear(g_c), s	3.0	23.4	4.7	0.3	27.6	0.5	11.3	0.0	7.9	2.0	0.0	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.43
Lane Grp Cap(c), veh/h	281	2089	932	255	1994	890	267	0	370	275	0	229
V/C Ratio(X)	0.37	0.55	0.15	0.05	0.61	0.02	0.74	0.00	0.37	0.12	0.00	0.84
Avail Cap(c_a), veh/h	313	2089	932	334	1994	890	267	0	454	403	0	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.2	15.0	11.2	12.7	17.6	11.7	39.2	0.0	41.2	43.2	0.0	50.9
Incr Delay (d2), s/veh	0.8	1.0	0.3	0.1	1.4	0.0	10.7	0.0	0.6	0.2	0.0	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	8.8	1.7	0.1	10.7	0.2	5.7	0.0	3.6	0.9	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	16.0	11.5	12.7	19.0	11.7	49.9	0.0	41.8	43.4	0.0	58.8
LnGrp LOS	B	B	B	B	B	B	D	A	D	D	A	E
Approach Vol, veh/h		1381			1250			336			226	
Approach Delay, s/veh		15.5			18.9			46.6			56.5	
Approach LOS		B			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	75.5	17.0	20.8	9.8	72.3	8.4	29.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	51.0	12.0	30.0	7.0	51.0	12.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	25.4	13.3	14.9	5.0	29.6	4.0	9.9
Green Ext Time (p_c), s	0.0	9.0	0.0	0.9	0.0	8.6	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	1	1	4	21	1	5	7	190	20	5	180	2
Future Vol, veh/h	1	1	4	21	1	5	7	190	20	5	180	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	335	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	4	23	1	5	8	207	22	5	196	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	444	452	197	444	442	218	198	0	0	229	0	0
Stage 1	207	207	-	234	234	-	-	-	-	-	-	-
Stage 2	237	245	-	210	208	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	576	534	844	576	542	908	1375	-	-	1364	-	-
Stage 1	795	731	-	839	744	-	-	-	-	-	-	-
Stage 2	835	735	-	792	730	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	568	529	844	568	537	908	1375	-	-	1364	-	-
Mov Cap-2 Maneuver	568	529	-	568	537	-	-	-	-	-	-	-
Stage 1	790	728	-	834	740	-	-	-	-	-	-	-
Stage 2	824	730	-	784	727	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	11.2	0.2	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1375	-	-	715	609	1364	-	-
HCM Lane V/C Ratio	0.006	-	-	0.009	0.048	0.004	-	-
HCM Control Delay (s)	7.6	-	-	10.1	11.2	7.7	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	1071	7	3	1115	41	2	1	3	15	1	18
Future Vol, veh/h	14	1071	7	3	1115	41	2	1	3	15	1	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	690	-	-	265	-	285	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	1177	8	3	1225	45	2	1	3	16	1	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1270	0	0	1185	0	0	1830	2487	593	1850	2446	613
Stage 1	-	-	-	-	-	-	1211	1211	-	1231	1231	-
Stage 2	-	-	-	-	-	-	619	1276	-	619	1215	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	543	-	-	585	-	-	48	29	449	46	31	435
Stage 1	-	-	-	-	-	-	193	253	-	188	248	-
Stage 2	-	-	-	-	-	-	443	236	-	443	252	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	543	-	-	585	-	-	43	28	449	43	30	435
Mov Cap-2 Maneuver	-	-	-	-	-	-	43	28	-	43	30	-
Stage 1	-	-	-	-	-	-	188	246	-	183	247	-
Stage 2	-	-	-	-	-	-	419	235	-	426	245	-

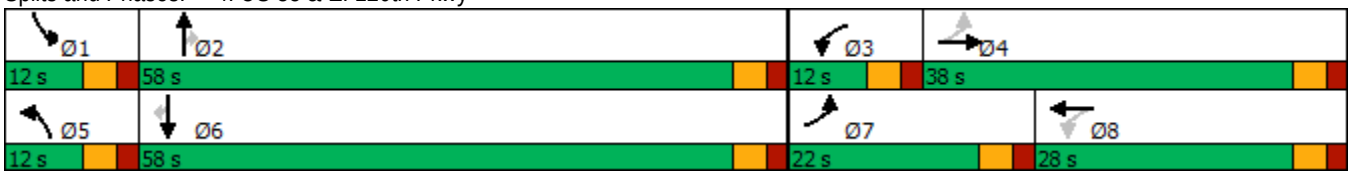
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	64.5	84.5
HCM LOS			F	F

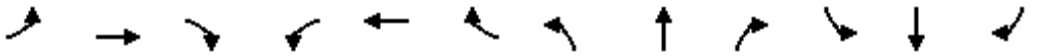
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	67	543	-	-	585	-	-	80
HCM Lane V/C Ratio	0.098	0.028	-	-	0.006	-	-	0.467
HCM Control Delay (s)	64.5	11.8	-	-	11.2	-	-	84.5
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	353	841	187	105	821	75	212	1535	140	140	1700	263
Future Volume (vph)	353	841	187	105	821	75	212	1535	140	140	1700	263
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	22.0	38.0		12.0	28.0		12.0	58.0	58.0	12.0	58.0	58.0
Total Split (%)	18.3%	31.7%		10.0%	23.3%		10.0%	48.3%	48.3%	10.0%	48.3%	48.3%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0		-2.0	-3.0	0.0	-2.0	-3.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	3.0		3.0	2.0	5.0	3.0	2.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	45.0	35.0	120.0	30.0	25.0	120.0	9.0	56.0	53.0	9.0	56.0	53.0
Actuated g/C Ratio	0.38	0.29	1.00	0.25	0.21	1.00	0.08	0.47	0.44	0.08	0.47	0.44
v/c Ratio	1.19	0.86	0.12	0.67	1.17	0.05	0.87	0.98	0.19	0.57	1.08	0.32
Control Delay	144.8	49.8	0.2	48.4	133.7	0.1	85.6	49.5	3.3	63.0	80.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	144.8	49.8	0.2	48.4	133.7	0.1	85.6	49.5	3.3	63.0	80.1	3.4
LOS	F	D	A	D	F	A	F	D	A	E	F	A
Approach Delay		67.4			114.7			50.1			69.4	
Approach LOS		E			F			D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 70.4	Intersection LOS: E
Intersection Capacity Utilization 109.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: US 85 & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	353	841	187	105	821	75	212	1535	140	140	1700	263
Future Volume (veh/h)	353	841	187	105	821	75	212	1535	140	140	1700	263
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	372	885	0	111	864	0	223	1616	147	147	1789	277
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	1036		189	740		259	1662	702	256	1658	700
Arrive On Green	0.14	0.29	0.00	0.06	0.21	0.00	0.08	0.47	0.44	0.07	0.47	0.44
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	372	885	0	111	864	0	223	1616	147	147	1789	277
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	17.0	28.2	0.0	6.0	25.0	0.0	7.7	53.3	6.8	4.9	56.0	14.2
Cycle Q Clear(g_c), s	17.0	28.2	0.0	6.0	25.0	0.0	7.7	53.3	6.8	4.9	56.0	14.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	312	1036		189	740		259	1662	702	256	1658	700
V/C Ratio(X)	1.19	0.85		0.59	1.17		0.86	0.97	0.21	0.57	1.08	0.40
Avail Cap(c_a), veh/h	312	1036		189	740		259	1662	702	259	1658	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	40.1	0.0	37.7	47.5	0.0	54.9	31.2	20.5	53.7	32.0	22.7
Incr Delay (d2), s/veh	113.2	7.1	0.0	4.7	89.4	0.0	24.2	16.4	0.7	3.0	46.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	12.8	0.0	2.8	19.9	0.0	4.1	24.1	2.6	2.2	32.2	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	148.1	47.1	0.0	42.3	136.9	0.0	79.0	47.6	21.2	56.7	78.7	24.3
LnGrp LOS	F	D		D	F		E	D	C	E	F	C
Approach Vol, veh/h		1257			975			1986			2213	
Approach Delay, s/veh		77.0			126.2			49.2			70.5	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	58.1	12.0	38.0	12.0	58.0	22.0	28.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	53.0	7.0	33.0	7.0	53.0	17.0	23.0
Max Q Clear Time (g_c+I1), s	6.9	55.3	8.0	30.2	9.7	58.0	19.0	27.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	73.6
HCM 6th LOS	E

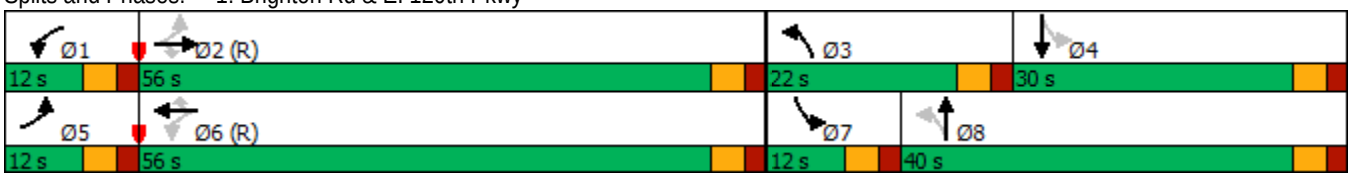
Notes

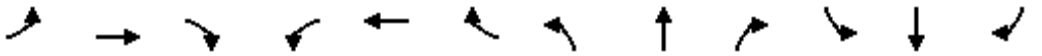
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	95	1207	220	21	1672	30	295	145	41	80
Future Volume (vph)	95	1207	220	21	1672	30	295	145	41	80
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	10.0	20.0
Total Split (s)	12.0	56.0	56.0	12.0	56.0	56.0	22.0	40.0	12.0	30.0
Total Split (%)	10.0%	46.7%	46.7%	10.0%	46.7%	46.7%	18.3%	33.3%	10.0%	25.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	69.1	64.1	64.1	64.5	58.2	58.2	39.0	29.4	23.7	17.1
Actuated g/C Ratio	0.58	0.53	0.53	0.54	0.48	0.48	0.32	0.24	0.20	0.14
v/c Ratio	0.56	0.67	0.24	0.11	1.01	0.04	0.94	0.36	0.16	0.76
Control Delay	30.7	24.7	3.3	13.4	57.1	0.1	70.2	38.8	28.1	51.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	24.7	3.3	13.4	57.1	0.1	70.2	38.8	28.1	51.0
LOS	C	C	A	B	E	A	E	D	C	D
Approach Delay		22.0			55.5			59.4		47.3
Approach LOS		C			E			E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 42.5	Intersection LOS: D
Intersection Capacity Utilization 97.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & E. 120th Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1207	220	21	1672	30	295	145	11	41	80	135
Future Volume (veh/h)	95	1207	220	21	1672	30	295	145	11	41	80	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	1257	229	22	1742	31	307	151	11	43	83	141
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	1838	820	188	1764	787	338	452	33	303	95	162
Arrive On Green	0.04	0.52	0.52	0.02	0.50	0.50	0.14	0.26	0.26	0.03	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1722	125	1781	623	1058
Grp Volume(v), veh/h	99	1257	229	22	1742	31	307	0	162	43	0	224
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1848	1781	0	1680
Q Serve(g_s), s	3.3	31.7	9.8	0.7	58.1	1.2	17.0	0.0	8.5	2.4	0.0	15.6
Cycle Q Clear(g_c), s	3.3	31.7	9.8	0.7	58.1	1.2	17.0	0.0	8.5	2.4	0.0	15.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.63
Lane Grp Cap(c), veh/h	139	1838	820	188	1764	787	338	0	485	303	0	257
V/C Ratio(X)	0.71	0.68	0.28	0.12	0.99	0.04	0.91	0.00	0.33	0.14	0.00	0.87
Avail Cap(c_a), veh/h	167	1838	820	254	1764	787	338	0	539	351	0	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.3	21.6	16.3	17.9	29.8	15.5	36.2	0.0	35.8	40.9	0.0	49.7
Incr Delay (d2), s/veh	10.7	2.1	0.8	0.3	18.6	0.1	27.1	0.0	0.4	0.2	0.0	16.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	12.7	3.7	0.3	27.2	0.5	9.9	0.0	3.9	1.1	0.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	23.7	17.2	18.2	48.5	15.6	63.3	0.0	36.2	41.1	0.0	66.0
LnGrp LOS	D	C	B	B	D	B	E	A	D	D	A	E
Approach Vol, veh/h		1585			1795			469			267	
Approach Delay, s/veh		23.7			47.5			53.9			62.0	
Approach LOS		C			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	67.1	22.0	23.3	10.1	64.6	8.8	36.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	51.0	17.0	25.0	7.0	51.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	2.7	33.7	19.0	17.6	5.3	60.1	4.4	10.5
Green Ext Time (p_c), s	0.0	8.7	0.0	0.7	0.0	0.0	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	9	31	1	5	4	250	15	5	215	1
Future Vol, veh/h	2	1	9	31	1	5	4	250	15	5	215	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	335	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	10	34	1	5	4	272	16	5	234	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	536	541	235	538	533	280	235	0	0	288	0	0
Stage 1	245	245	-	288	288	-	-	-	-	-	-	-
Stage 2	291	296	-	250	245	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	511	480	804	509	486	868	1332	-	-	1304	-	-
Stage 1	759	703	-	811	716	-	-	-	-	-	-	-
Stage 2	807	709	-	754	703	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	504	477	804	500	483	868	1332	-	-	1304	-	-
Mov Cap-2 Maneuver	504	477	-	500	483	-	-	-	-	-	-	-
Stage 1	757	700	-	808	714	-	-	-	-	-	-	-
Stage 2	798	707	-	741	700	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	12.3	0.1	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1332	-	-	695	530	1304	-	-
HCM Lane V/C Ratio	0.003	-	-	0.019	0.076	0.004	-	-
HCM Control Delay (s)	7.7	-	-	10.3	12.3	7.8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	1246	1	1	1690	36	1	1	6	15	1	23
Future Vol, veh/h	14	1246	1	1	1690	36	1	1	6	15	1	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	690	-	-	265	-	285	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	1312	1	1	1779	38	1	1	6	16	1	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1817	0	0	1313	0	0	2235	3162	657	2468	3124	890
Stage 1	-	-	-	-	-	-	1343	1343	-	1781	1781	-
Stage 2	-	-	-	-	-	-	892	1819	-	687	1343	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	334	-	-	523	-	-	23	10	407	~ 15	11	286
Stage 1	-	-	-	-	-	-	160	219	-	85	133	-
Stage 2	-	-	-	-	-	-	303	127	-	403	219	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	334	-	-	523	-	-	19	10	407	~ 13	10	286
Mov Cap-2 Maneuver	-	-	-	-	-	-	19	10	-	~ 13	10	-
Stage 1	-	-	-	-	-	-	153	209	-	81	133	-
Stage 2	-	-	-	-	-	-	275	127	-	377	209	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	95.3	$ 519
HCM LOS			F	F

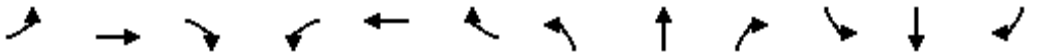
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	48	334	-	-	523	-	-	29
HCM Lane V/C Ratio	0.175	0.044	-	-	0.002	-	-	1.416
HCM Control Delay (s)	95.3	16.3	-	-	11.9	-	-	$ 519
HCM Lane LOS	F	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-	-	4.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	318	1126	152	105	831	140	602	1975	195	310	1400	538
Future Volume (vph)	318	1126	152	105	831	140	602	1975	195	310	1400	538
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	19.0	33.0		12.0	26.0		24.0	60.0	60.0	15.0	51.0	51.0
Total Split (%)	15.8%	27.5%		10.0%	21.7%		20.0%	50.0%	50.0%	12.5%	42.5%	42.5%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	-2.0		0.0	-2.0		-2.0	-3.0	0.0	-2.0	-3.0	0.0
Total Lost Time (s)	5.0	3.0		5.0	3.0		3.0	2.0	5.0	3.0	2.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	40.0	30.0	120.0	28.0	23.0	120.0	21.0	58.0	55.0	12.0	49.0	46.0
Actuated g/C Ratio	0.33	0.25	1.00	0.23	0.19	1.00	0.18	0.48	0.46	0.10	0.41	0.38
v/c Ratio	1.25	1.34	0.10	0.67	1.29	0.09	1.06	1.22	0.25	0.95	1.02	0.76
Control Delay	170.1	197.3	0.1	51.3	181.2	0.1	100.1	132.4	3.9	91.5	64.3	26.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	170.1	197.3	0.1	51.3	181.2	0.1	100.1	132.4	3.9	91.5	64.3	26.3
LOS	F	F	A	D	F	A	F	F	A	F	E	C
Approach Delay		173.1			145.0			116.4			59.0	
Approach LOS		F			F			F			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 150	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.34	
Intersection Signal Delay: 115.4	Intersection LOS: F
Intersection Capacity Utilization 118.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: US 85 & E. 120th Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	318	1126	152	105	831	140	602	1975	195	310	1400	538
Future Volume (veh/h)	318	1126	152	105	831	140	602	1975	195	310	1400	538
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	335	1185	0	111	875	0	634	2079	205	326	1474	566
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	888		164	681		605	1718	726	346	1451	608
Arrive On Green	0.12	0.25	0.00	0.06	0.19	0.00	0.17	0.48	0.46	0.10	0.41	0.38
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	335	1185	0	111	875	0	634	2079	205	326	1474	566
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	14.0	30.0	0.0	6.1	23.0	0.0	21.0	58.0	9.7	11.2	49.0	41.1
Cycle Q Clear(g_c), s	14.0	30.0	0.0	6.1	23.0	0.0	21.0	58.0	9.7	11.2	49.0	41.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	888		164	681		605	1718	726	346	1451	608
V/C Ratio(X)	1.25	1.33		0.68	1.28		1.05	1.21	0.28	0.94	1.02	0.93
Avail Cap(c_a), veh/h	268	888		164	681		605	1718	726	346	1451	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	45.0	0.0	39.4	48.5	0.0	49.5	31.0	20.2	53.7	35.5	35.5
Incr Delay (d2), s/veh	139.9	157.9	0.0	10.6	139.1	0.0	49.9	100.4	1.0	33.9	27.6	23.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	32.2	0.0	3.1	23.0	0.0	12.8	45.9	3.6	6.3	24.8	18.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	176.6	202.9	0.0	50.1	187.6	0.0	99.4	131.4	21.2	87.6	63.1	58.5
LnGrp LOS	F	F		D	F		F	F	C	F	F	E
Approach Vol, veh/h		1520			986			2918			2366	
Approach Delay, s/veh		197.1			172.1			116.7			65.4	
Approach LOS		F			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	60.0	12.0	33.0	24.0	51.0	19.0	26.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	55.0	7.0	28.0	19.0	46.0	14.0	21.0
Max Q Clear Time (g_c+I1), s	13.2	60.0	8.1	32.0	23.0	51.0	16.0	25.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	123.8
HCM 6th LOS	F

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.