



February 1, 2023

Elizabeth Fuselier
City of Aurora
Planning
Department
15151 E. Alameda Parkway, Suite 2300
Aurora, CO 80012

Re: Third Submission Review – Green Valley Ranch East Site Plan No. 15 - Site Plan and Plat
Application Number: **DA-1662-26**
Case Number(s): 2022-4014-00; 2022-3019-00

Dear Ms. Fuselier,

On behalf of Oakwood Homes, Aztec Consultants, Dewberry Engineering and Terracina Design, we have reviewed the comments dated September 22, 2022. The following is a response to comments.

Third Submission Review

SUMMARY OF KEY COMMENTS FROM ALL DEPARTMENTS

- Revise Letter of Introduction (Second Request; Planning)
- Lot Counts/Lot Data Table (Planning)
- Updated Traffic Impact Study (Traffic)
- Title Work (Real Property)
- Preliminary Drainage Report (Public Works)
- Chase Drains (Public Works)
- Wall Typicals (Public Works)
- Slope of Swales (Public Works)
- Plant Relocation (Landscaping)
- Curbside Planting (Landscaping)
- Verify Plant Counts (Landscaping)

PLANNING DEPARTMENT COMMENTS

1. Community Questions, Comments and Concerns

- 1A. Please provide responses to comments and questions received within the response letter for your next submission.

2. Zoning and Land Use Comments

- 2A. Letter of Introduction was not submitted with this submittal. (Second Request) Please revise the LOI and provide it with the next submission. Revise the Letter of Introduction to discuss how the proposed site plan meets Adjustment Criteria in Section 146-5.4.4.D. **RESPONSE: Letter of introduction included with next submittal.**
- 2B. The Lot Data Tables do not match. Please provide correct data of lot sizes and counts with next submission. **RESPONSE: Revised**

3. Landscaping Issues (Deborah Bickmire/ 303-739-7189 / dbikmir@auroragov.org / Comments in bright teal)

- 3A. Relocate plant material so trees are separated from utilities and hydrants by a minimum of 10'. **RESPONSE:** Trees shifted 10' from main utility lines. Trees can be 6' from services and 8' from hydrants.
- 3B. Add buffer labels and dimensions. Move labels and use leaders where noted on the redlines. **RESPONSE:** Buffer labels and dimensions revised
- 3C. There should be one shrub per 40 sf in the curbside landscape in common areas. Please review plant counts. **RESPONSE:** Plant counts revised as necessary.
- 3D. Add curbside landscape in location noted on redlines. **RESPONSE:** Curbside landscape added.
- 3E. Show sight triangles based on location of stop signs. Review landscape within the sight triangles and ensure it doesn't exceed 26" in height. **RESPONSE:** Stop signs have been shifted closer to intersection and sight lines adjusted as necessary.
- 3F. The Porchlight motorcourt lots are wider and there is enough room to put two trees in the front yards adjacent to the street. **RESPONSE:** 2 trees now located in front yards of Porchlight.
- 3G. Verify plant counts for lot diagram G are shown and itemized consistently. **RESPONSE:** Lot counts on water wise sheets revised.
- 3H. Review plant count for diagram K2 is consistent with itemized quantity. **RESPONSE:** Lot counts on water wise sheets revised.
- 3I. Please see the plans and address all redline comments and notations. **RESPONSE:** Redlines addressed

REFERRAL COMMENTS FROM OTHER DEPARTMENTS AND AGENCIES

4. Civil Engineering (Julie Bingham / 303-739-7306 / JBingham@auroragov.org / Comments in green)

- 4A. The site plan will not be approved by Public Works until the preliminary drainage report is approved. **RESPONSE:** The PDR is currently under review
- 4B. Please add to this note: "The Infrastructure Site Plan (ISP) and civil plans for the associated infrastructure must be approved prior to the issuance of building permits. Construction shown on the civil plans for the ISP for associated infrastructure must be initially accepted by the City prior to the issuance of Temporary Certificate of Occupancy (TCO) or Certificate of Occupancy (C) per the approved Public Improvement Plan." **RESPONSE:** The requested note has been added
- 4C. Show/label the proposed drainage easement for the water quality pond. **RESPONSE:** Drainage easement for water quality pond now shown.
- 4D. Add the dashed line to the legend. **RESPONSE:** The dashed line has been added to the legend
- 4E. Chase drains are proposed in this area per the drainage plan. Please show/label the chase drains on the site plan as well. **RESPONSE:** The chase drains have been shown and are labeled appropriately on the plans
- 4F. Show/label the drainage easement for the pond. **RESPONSE:** Drainage easement for water quality pond now shown.
- 4G. Add back the slope labels in the bottom of the pond. Minimum 2%. **RESPONSE:** The slope labels have been added back into the plans and show a min slope of 2% as required
- 4H. Label the pond as private. Indicate the maintenance responsibility in the notes. **RESPONSE:** : The pond has been labeled as private and appropriate language has been added to the plans indicating maintenance responsibility

- 4I. Comment response mentions that the section detail is provided on sheet 28. On the current set, only the tiered wall is shown. Please provide a typical section for this wall that shows the required railing. **RESPONSE:**
- 4J. Walls over 4' are not permitted in residential areas per Section 4.02.7.01.2 in the Roadway Manual. **RESPONSE:** All walls have been redesigned such that they do not exceed 4'. Where walls greater than 4' are necessary, the walls have been tiered such that no tier exceeds 4' in height
- 4K. Label the slope in the swale. Minimum 2%. **RESPONSE:** The slope of the swale has been labeled, where min slope does not maintain 2% grade, an underdrain will be provided per COA Standard detail
- 4L. Sheet 17: Max 3:1 slopes. **RESPONSE:** All grades have been set such that they do not exceed 3:1 slope
- 4M. Sheet 17: Advisory: ensure that the tiebacks for these retaining walls will not be encroaching in the utility easement. **RESPONSE:** The walls have been designed such that tie backs will be encroach into the utility easement

5. Traffic Engineering (Steve Gomez / 303-739-7336 / segomezauroragov.org / Comments in amber)

- 5A. Site Plan will not be approved until updated TIS is provided and approved. **RESPONSE:** The TIS has been updated, and will be submitted for approval
- 5B. Sheet 3: Duplicate note to note three. **RESPONSE:** Duplicate note has been removed
- 5C. Move the STOP sign closer to the ped ramp. **RESPONSE:** the stop sign has been relocated closer to the ped ramp
- 5D. Sheet 11: Move the STOP sign. **RESPONSE:** Stop sign has been moved to the noted location
- 5E. Sheet 18: See additional comments. **RESPONSE:** Noted

6. Fire / Life Safety (Will Polk / 303-739-7371 / wpolk@auroragov.org / Comments in blue)

- 6A. Approved. **RESPONSE:**Noted

7. Aurora Water (Steve Dekoski / 303-739-7490 / sdekoski@auroragov.org / Comments in red)

- 7A. Approved **RESPONSE:**Noted

8. Forestry (Jacque Chomiak / 303-739-7178 / jchomiak@auroragov.org / Comments in purple)

- 8A. Approved. **RESPONSE:**Noted

9. PROS (Michelle Teller / 303-739-7131 / MTeller@auroragov.org / Comments in mauve)

- 9A. Approved. **RESPONSE:**Noted

10. Real Property (Roger Nelson / 303-739-7294 / mbrooks@auroragov.org / Comments in magenta)

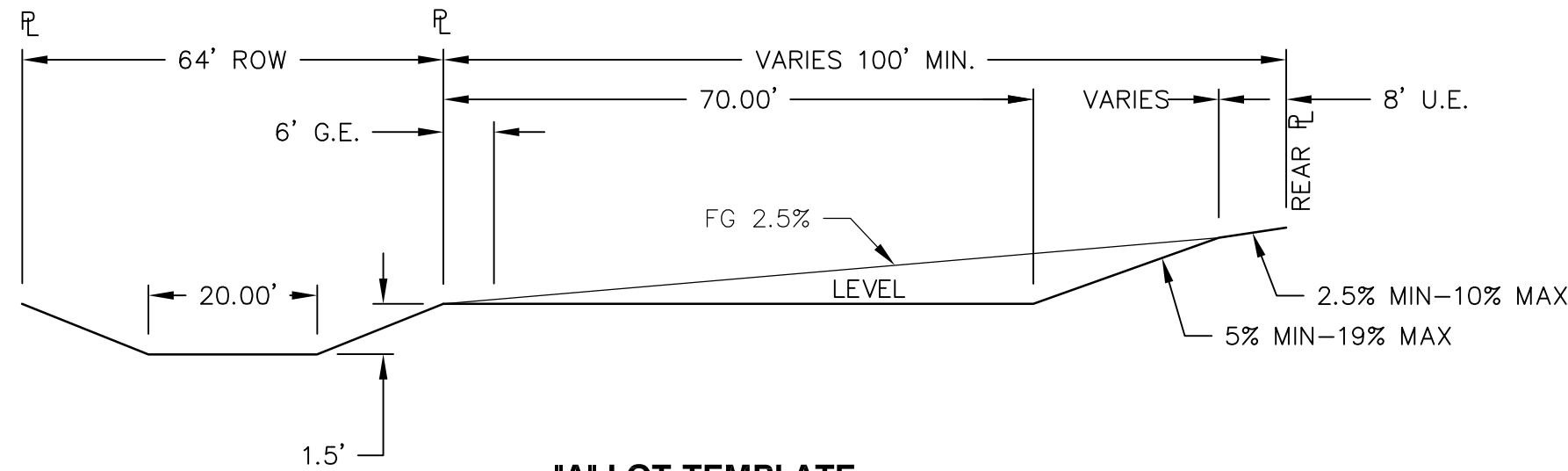
- 10A. See redlined comments throughout plan set. Make changes with the next submission. **RESPONSE:** Subdivision revised.

- 10B. PLAT: Title work must be within 120 days of plat approval date. Add the date last observed in the field. See minor redline comments. **RESPONSE:** Noted. Title will be updated as necessary when closer to mylars.

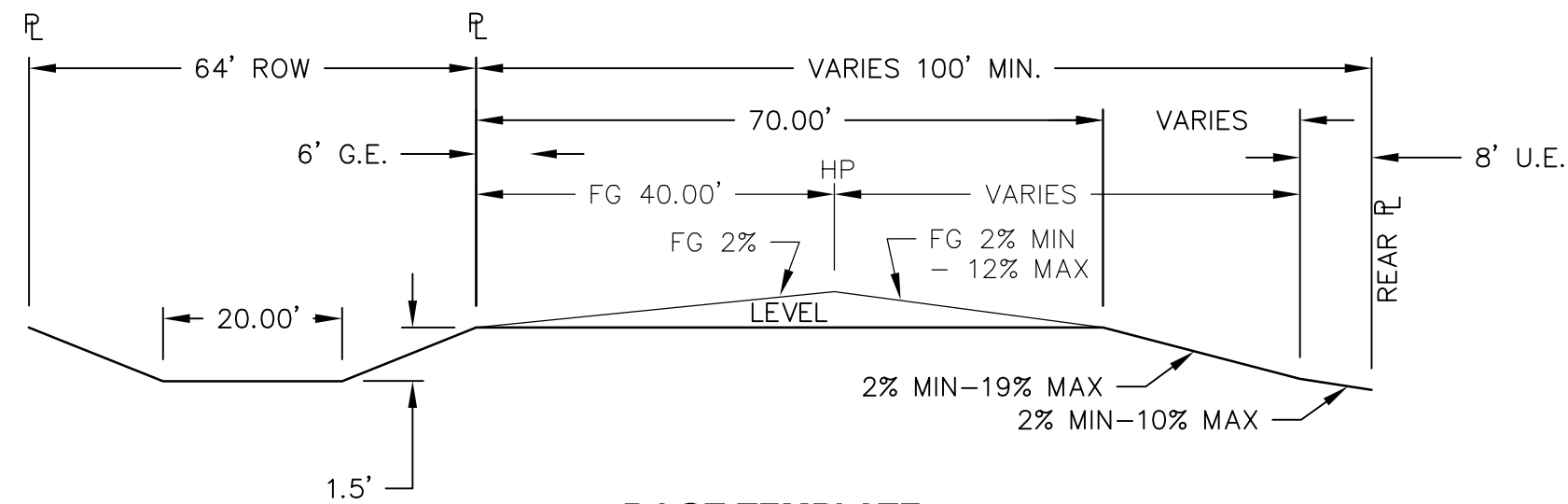
END OF RESPONSES

J:_DEWBERRY\OAKWOOD HOMES\GREEN VALLEY RANCH EAST-P&B-FILING 15\PLAN SETS\SIP\SIP-SEC-50144653.DWG 8/30/2022 4:36 PM NGUYEN, TUYET TRINH (LINDSEY)

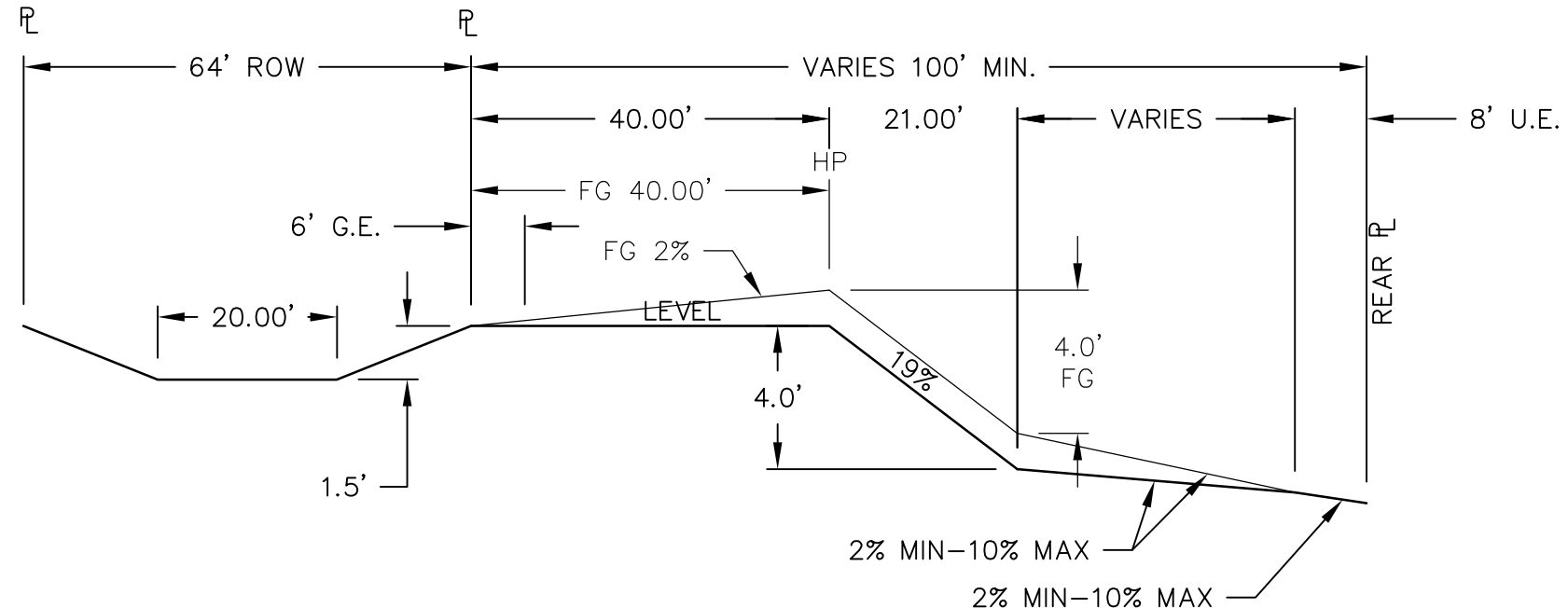
SINGLE FAMILY DETACHED LOTS



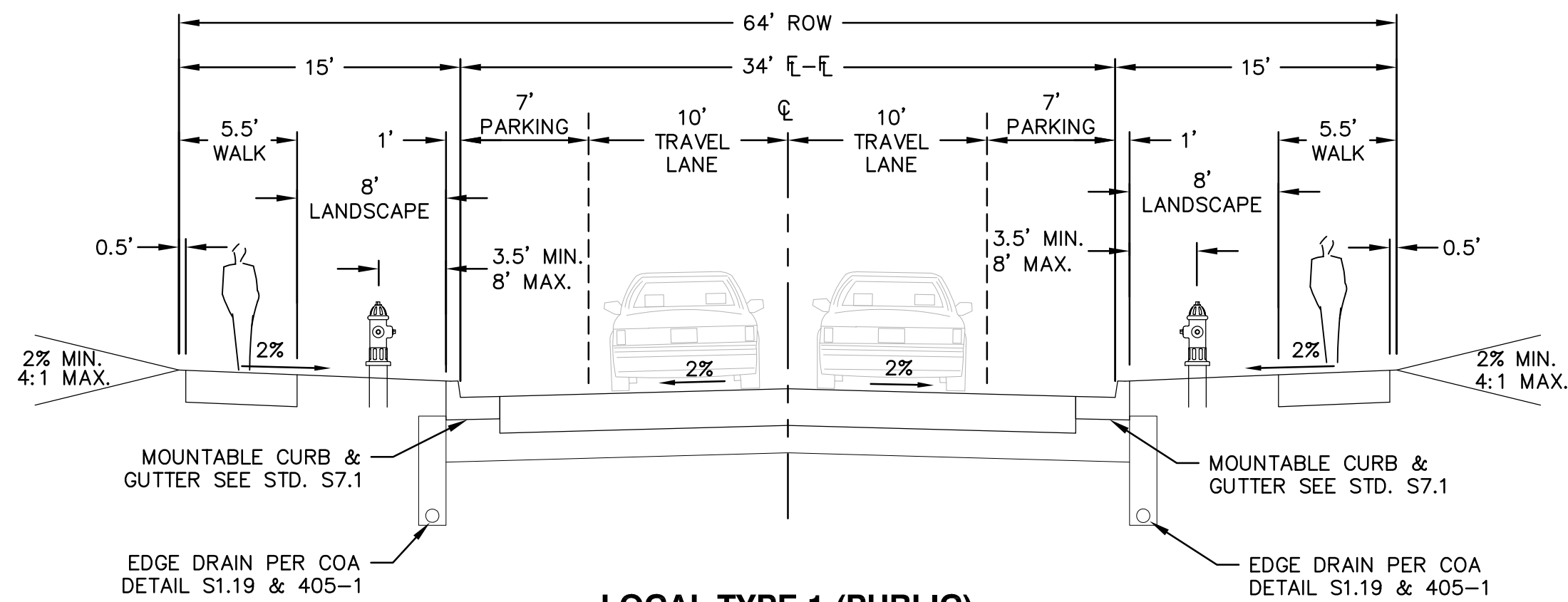
"A" LOT-TEMPLATE
N.T.S.



"B" LOT-TEMPLATE
N.T.S.

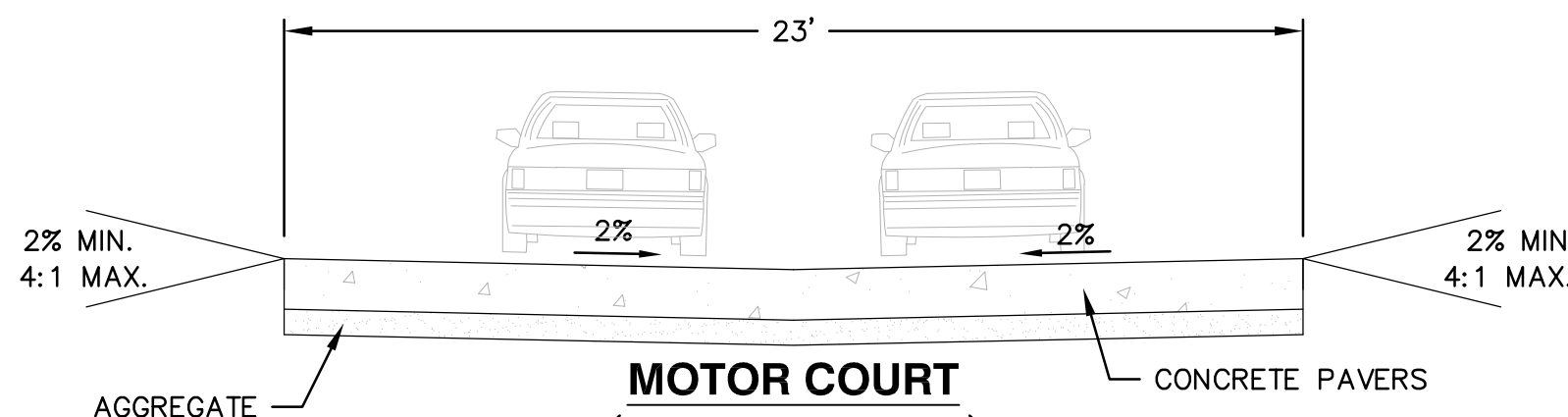


"G" LOT-TEMPLATE
N.T.S.



LOCAL TYPE 1 (PUBLIC)

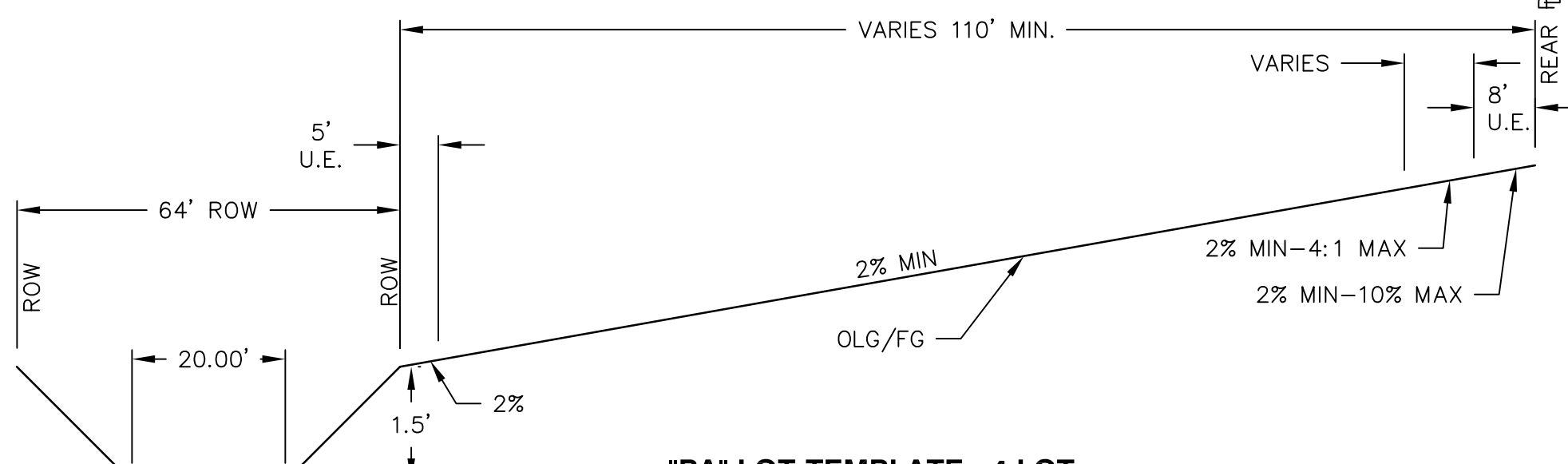
E 50TH AVE, E 49TH PL, N TEMPE ST, N SHAWNEE CT & N SICILY CT
N.T.S.



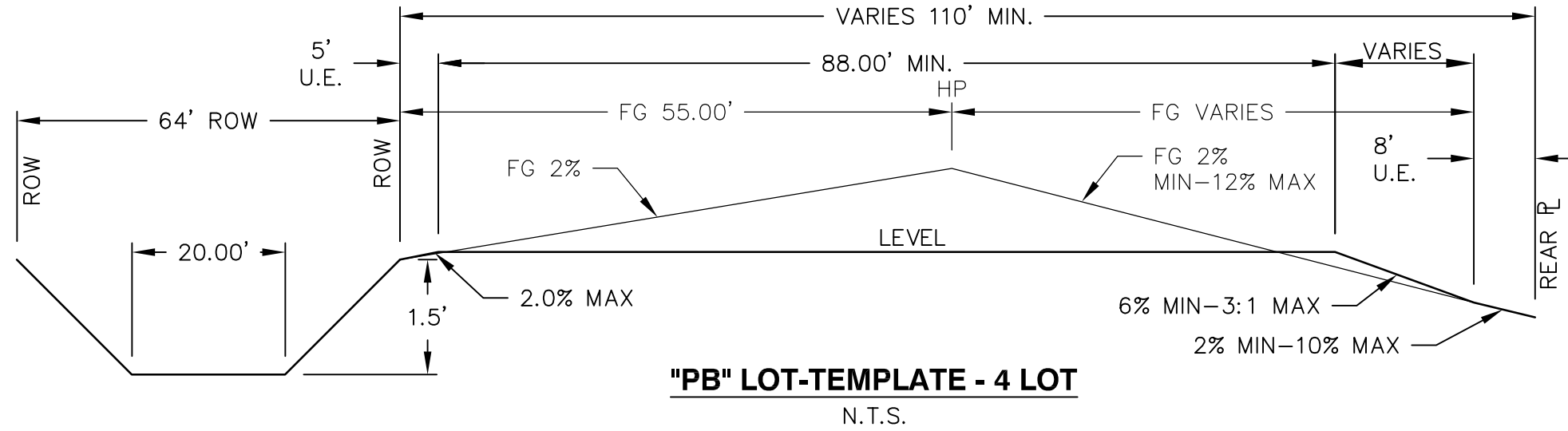
MOTOR COURT

(COA SECTION 4.04.2.08)
CONCRETE PAVERS SHALL SUPPORT THE WEIGHT LIMIT OF 85,000 LBS.AS
DENOTED IN THE OVERALL PROJECT PAVEMENT DESIGN REPORT
N.T.S.

PORCH LIGHT HOME LOTS

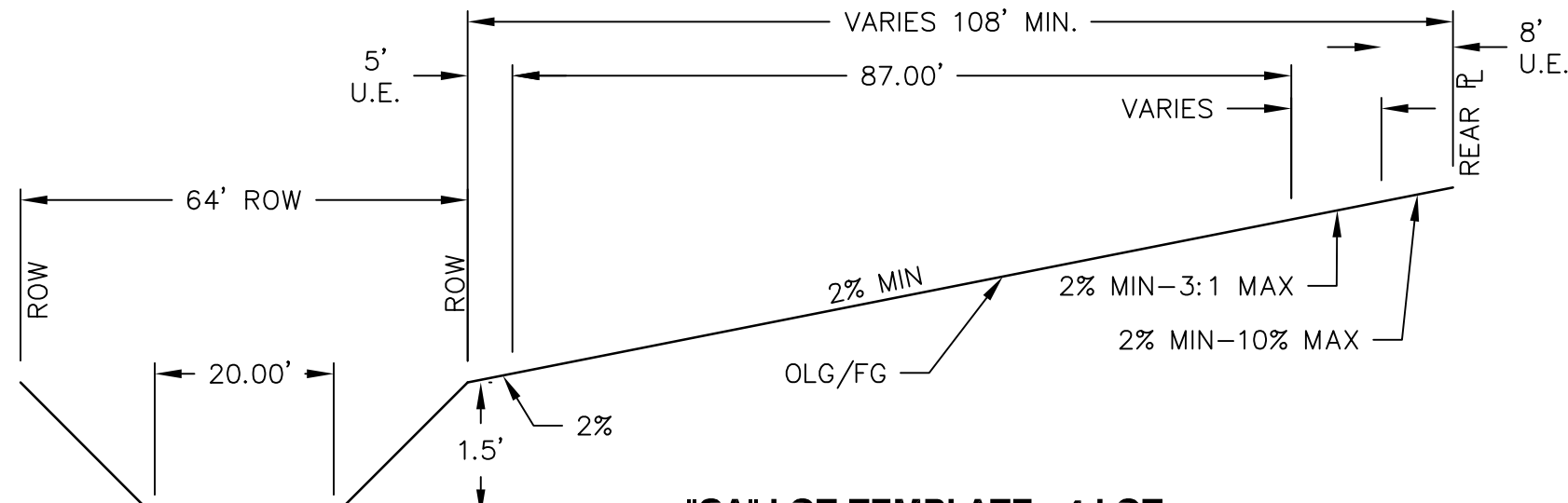


"PA" LOT-TEMPLATE - 4 LOT
N.T.S.

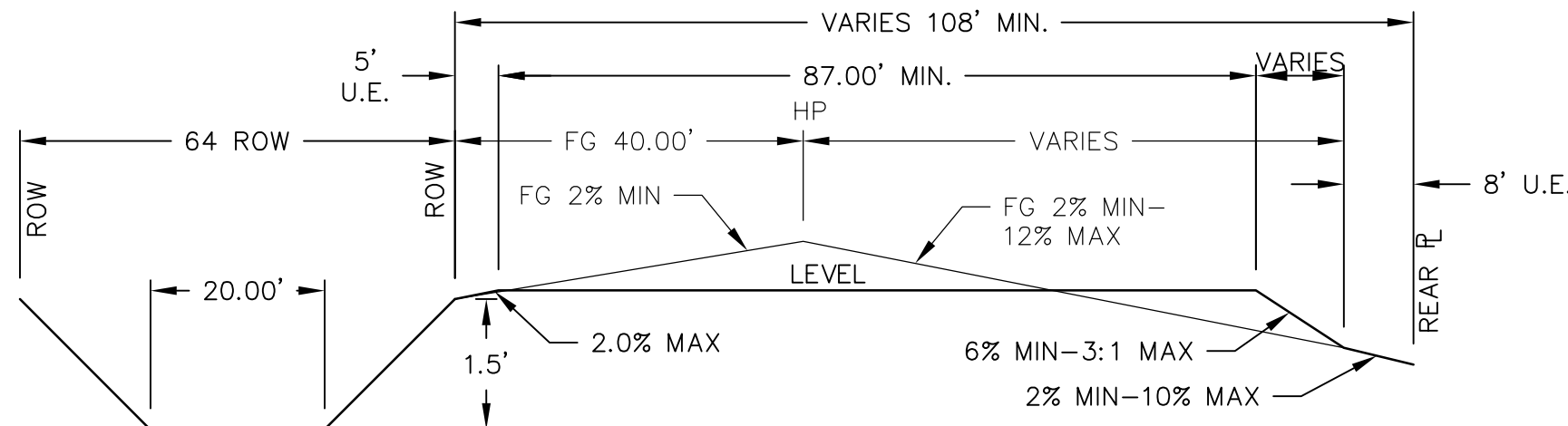


"PB" LOT-TEMPLATE - 4 LOT
N.T.S.

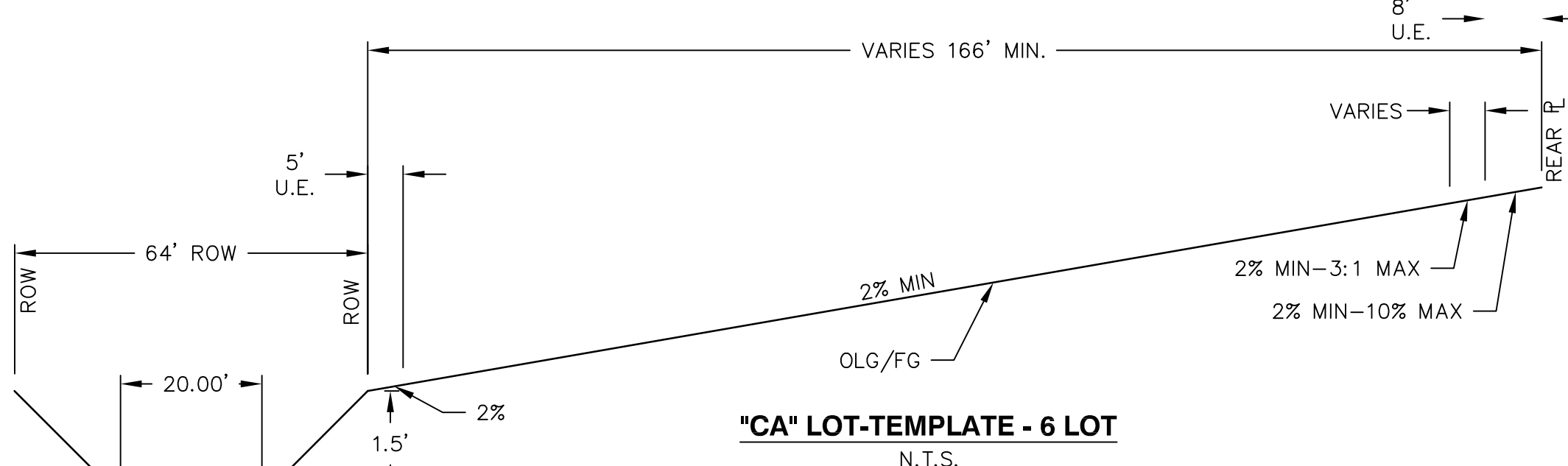
CARRIAGE HOME LOTS



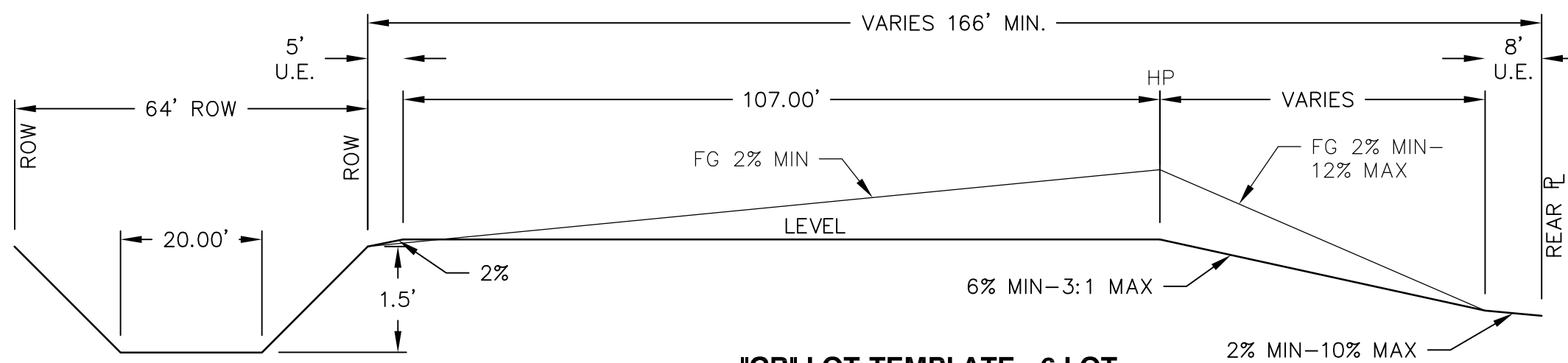
"CA" LOT-TEMPLATE - 4 LOT
N.T.S.



"CB" LOT-TEMPLATE - 4 LOT
N.T.S.



"CA" LOT-TEMPLATE - 6 LOT
N.T.S.



"CB" LOT-TEMPLATE - 6 LOT
N.T.S.

GREEN VALLEY RANCH EAST SITE PLAN #15

OAKWOOD HOMES

4908 TOWER ROAD
DENVER, CO 80249

Tel: (303)486-8500

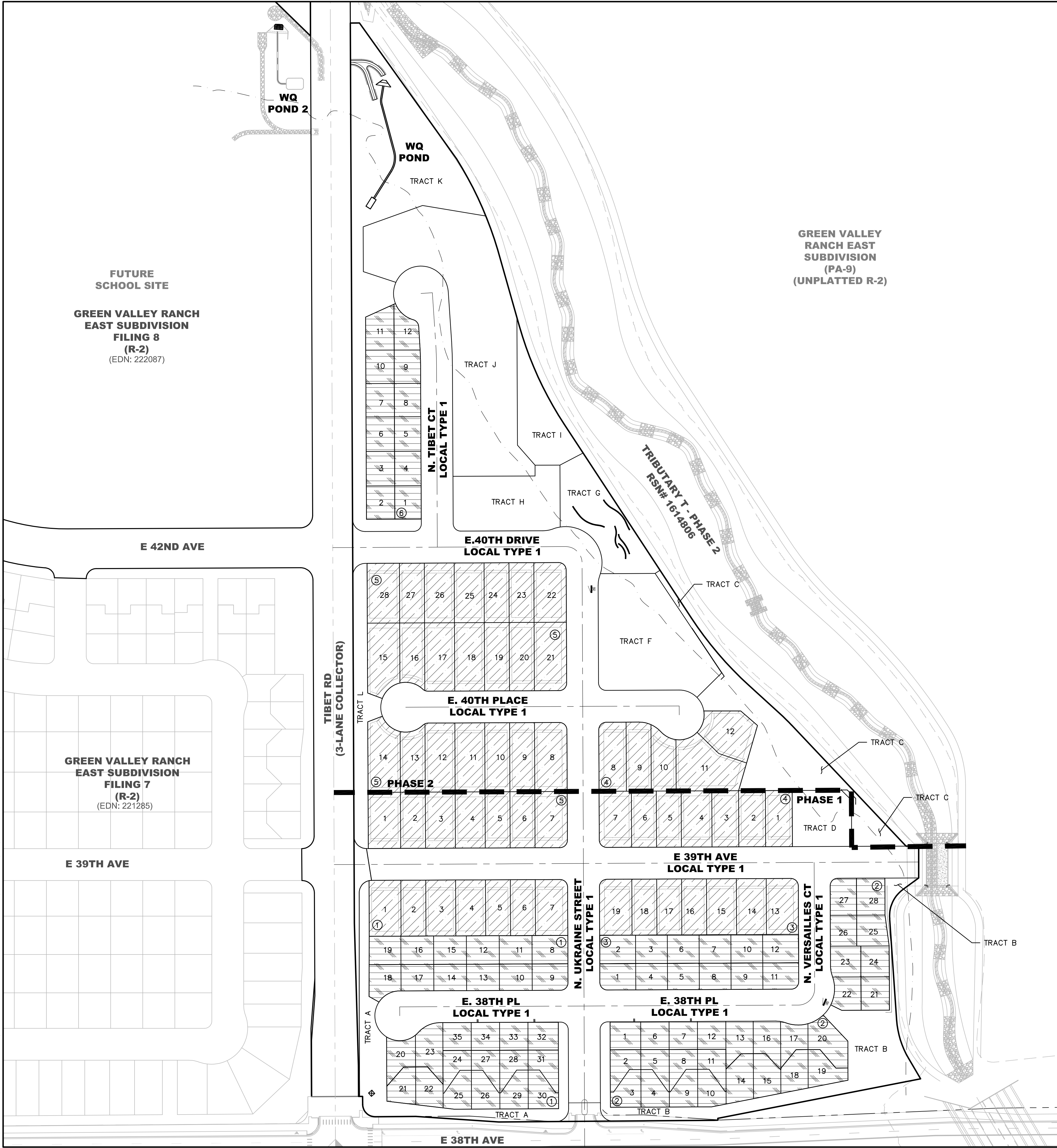
Contact: David Carro, RLA

No.	Date	Description
3	08/30/2022	3RD SUBMITTAL
2	05/24/2022	2ND SUBMITTAL
1	02/28/22	1ST SUBMITTAL

PRELIMINARY
NOT FOR
CONSTRUCTION

Project Number: 50144653	Designed By: CETB	Drawn By: OCB	Checked By: TDK	Sheet Number: 2
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J:\DEWBERRY\OAKWOOD HOMES\GREEN VALLEY RANCH EAST-PA8_FILING 15\PLAN SETS\SIP-OSP-50144653.DWG 8/30/2022 4:36 PM NGUYEN, TUYET TRINH (LINDSEY)



GREEN VALLEY RANCH EAST SUBDIVISION (PA-9) (UNPLATTED R-2)

LOT CLASSIFICATION		
BLOCK	LOT	CLASSIFICATION
1	8,11,12,15,16,19-24,31-35	MOTOR COURT - SMALL
1	1-7	SFD - STANDARD
2	1-28	MOTOR COURT - SMALL
3	1-12	MOTOR COURT - SMALL
3	13-19	SFD - STANDARD
4	1-12	SFD - STANDARD
5	1-28	SFD - STANDARD
6	1-12	MOTOR COURT - SMALL

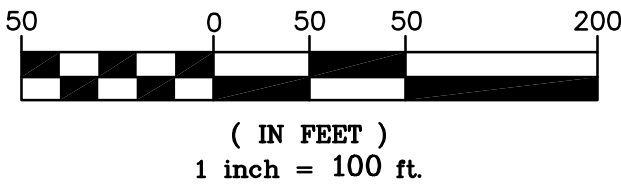
GREEN VALLEY RANCH EAST LOT SUMMARY TABLE		
	PROPOSED UINT COUNT	PROPOSED UNIT %
FILING 15		
SINGLE FAMILY DETACHED - STANDARD	54	40%
MOTOR COURT - SMALL	80	60%
SUBTOTAL	134	100%

MOTOR COURT - SMALL
FRONTAGE <50FT

SFD - STANDARD
50FT ≤ FRONTAGE <60FT

Add small vs standard lot areas

DEWBERRY RESPONSE: SQUARE FOOTAGE AREA FOR SMALL AND STANDARD LOTS HAVE BEEN ADDED.



Dewberry Engineers Inc.
8100 East Maplewood Avenue, Suite 150
Greenwood Village, CO 80111
Contact: Troy Kent, PE
Email: tkent@dewberry.com

GREEN VALLEY RANCH EAST SITE PLAN #15

OVERALL SITE PLAN

OAKWOOD HOMES
4908 TOWER ROAD
DENVER, CO 80249
Tel: (303)486-8500
Contact: David Carro, RLA

DOCUMENT AMENDMENTS			
No.	Date	Description	
3	08/30/2022	3RD SUBMITTAL	
2	05/24/2022	2ND SUBMITTAL	
1	02/28/22	1ST SUBMITTAL	

PRELIMINARY
NOT FOR
CONSTRUCTION

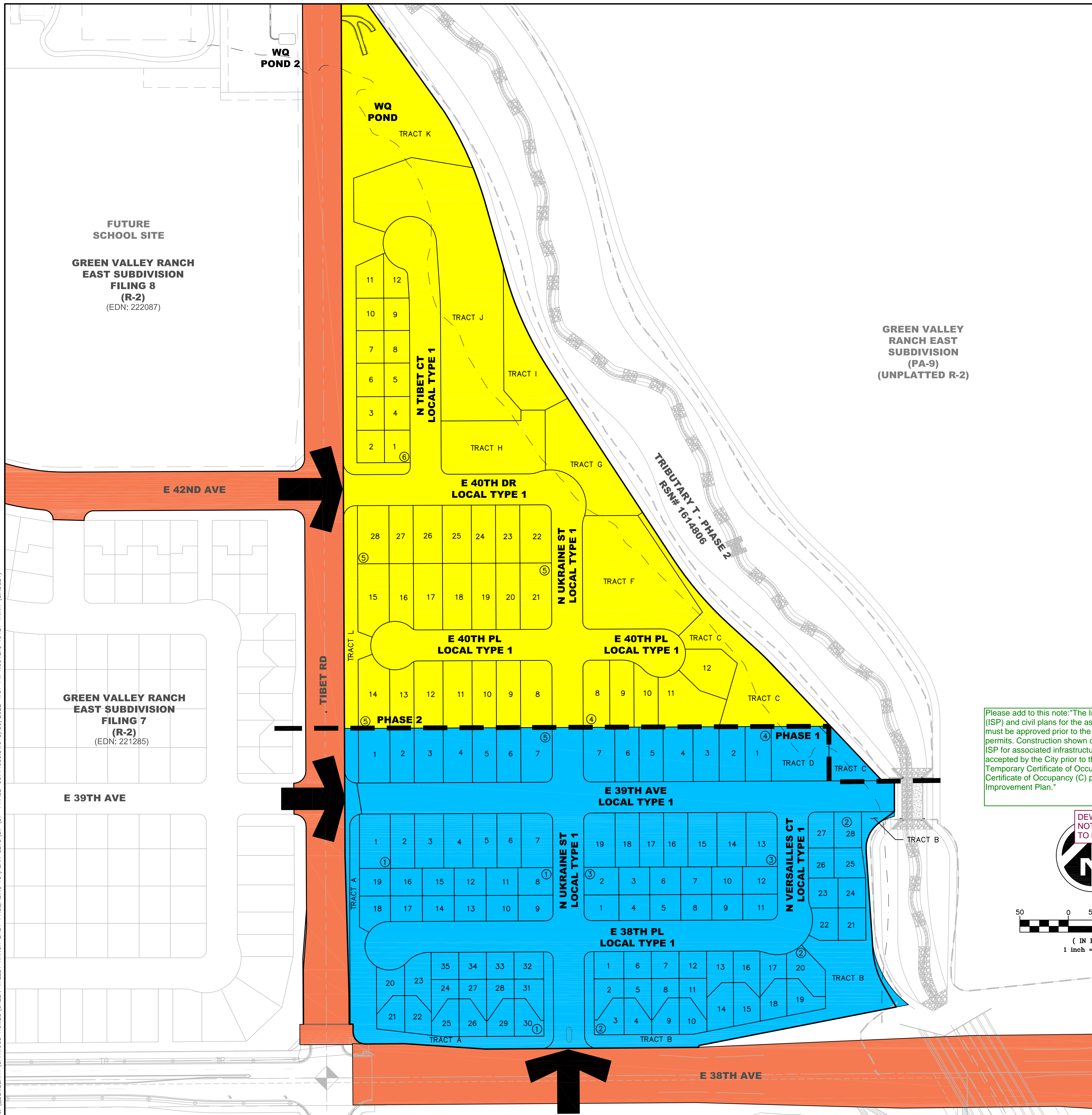
Project Number:
50144653

Designed By:
CETB

Checked By:
TDK

Drawn By:
OCB

Sheet Number:
4



**SYMBOLS AND
LINETYPES LEGEND**

BOUNDARY LINE

LOT PHASE LINE

SECTION LINE

HALF-SECTION LINE




RIGHT OF WAY LINE


LOT LINE

LOT NUMBER 15

BLOCK NUMBER (B)

PHASING LEGEND

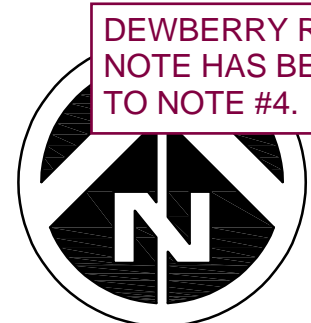
	E. 42ND AVE, TIBET ROAD PHASE 1 & E 38TH AVE FROM TIBET RD TO E-470 WILL BE BUILT BEFORE PHASE 1
	PHASE 1 - START CONCURRENTLY WITH TIBET ROAD PHASE 1; DELIVER 3 QUARTERS AFTER START
	PHASE 2 - START AFTER PHASE 1 LOTS DELIVERED; DELIVER 3 QUARTERS AFTER START



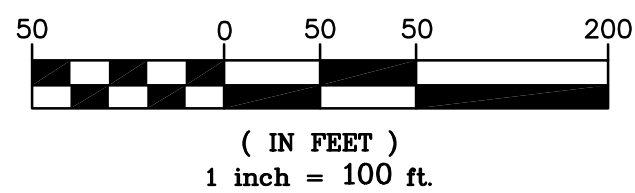
ENTRY POINT

- ## NOTES
1. THE PHASING PLAN SHALL BE IN ACCORDANCE WITH APPENDIX D OF THE 2015 IFC, PROVIDING TWO SEPARATE AND APPROVED FIRE APPARATUS ACCESS ROADS FOR SINGLE FAMILY RESIDENTIAL DEVELOPMENTS THAT EXCEED 30 UNITS. ONCE A DEVELOPMENT EXCEEDS 30 UNITS THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY SHALL BE CONTINGENT ON THE COMPLETION OF THE APPROVED EMERGENCY ACCESS POINTS AND WATER SUPPLY.
 2. PHASING DEPICTED AND ASSOCIATED START AND DELIVER DATES ARE SUBJECT TO CHANGE TO MEET MARKET CONDITIONS.
 3. PHASING BOUNDARIES ARE PRELIMINARY AND SUBJECT TO CHANGE SO LONG AS THEY MEET THE REQUIREMENTS OF NOTE 1 ABOVE.
- PER THE PUBLIC IMPROVEMENT PLAN (PIP), THE IMPROVEMENTS TO THE N TIBET ROAD AND E 38TH AVENUE RIGHTS-OF-WAY WILL BE BUILT IN SEPARATE FILINGS. THIS INCLUDES SIDEWALK, TREE LAWN, AND PAVEMENT.
5. FUTURE IMPROVEMENTS FOR PEDESTRIAN SAFETY TO BE INCLUDED.
 6. PRIOR TO ANY ABOVE GROUND LEVEL CONSTRUCTION OR ERECTION OF A STRUCTURE, WHETHER THE PRINCIPAL STRUCTURE MATERIALS ARE COMBUSTIBLE OR OF A NON-COMBUSTIBLE NATURE, THERE SHALL BE ADEQUATE ALL-WEATHER ACCESS ROADWAYS PROVIDED FOR USE BY EMERGENCY VEHICLE APPARATUS. FIRE ACCESS PROVIDED BY THE PROPERTY OWNER SHALL BE MAINTAINED TO ADEQUATELY SUPPORT FIRE APPARATUS UP TO 100,000 GPM. THESE TEMPORARY FIRE ACCESS ROADWAYS SHALL NOT BE LESS THAN 23 FT. WIDE WITH A STANDARD TURNING RADIUS OF 29 FT. INSIDE AND 52 FT. OUTSIDE. A HAMMERHEAD OR THREE-POINT TURNAROUND WILL BE REQUIRED ON DEAD END FIRE APPARATUS ROADS IN EXCESS OF 150 FT. THE MATERIAL USED TO CONSTRUCT THESE ROADWAYS MAY BE OF ANY ONE OF, OR A COMBINATION OF, SEVERAL AGGREGATE MATERIALS AVAILABLE. APPROVED MATERIALS INCLUDE PREMIXED ROAD BASE MATERIAL, 1 1/2 INCH RIVER ROCK, CRUSHED GRANITE OR OTHER AGGREGATE WITH NOT LESS THAN ONE-INCH NOMINAL SIZE DESIGNATION OR CRUSHED CONCRETE. THE FIRE CHIEF OR DESIGNATED REPRESENTATIVE MAY APPROVE OTHER ROADWAY MATERIALS. IN NO WAY SHALL THE DESIGNATIONS IN THIS POLICY BE INTERPRETED AS AN INTENTION OR INTEND TO PROHIBIT ASPHALT PAVING OR ADDITIONAL REQUIREMENTS AS NECESSARY.
 7. THE DEVELOPER SHALL PROVIDE TWO DISTINCT POINTS OF EMERGENCY ACCESS TO THE OVERALL SITE AND A LOOPEd WATER SUPPLY TO EACH PHASE OF THE DEVELOPMENT AS APPROVED BY THE LIFE SAFETY REPRESENTATIVE FOR THE AURORA FIRE DEPARTMENT. THE DEVELOPER SHALL CONSTRUCT ANY OFF SITE ROADWAY OR EMERGENCY CROSSINGS IMPROVEMENTS PER CITY STANDARDS NECESSARY TO FACILITATE EMERGENCY VEHICULAR ACCESS TO THIS SITE. LOOPEd UTILITY CONNECTIONS FOR THE DEVELOPMENT WILL BE ACHIEVED AS ALL CIVIL INFRASTRUCTURE WILL BE INSTALLED WITH PHASE 1 CONNECTING TO THE WL STUBS CONSTRUCTED WITH TIBET RD PHASE 1.
 8. EACH PORTION OF THE OVERALL SITE IS REQUIRED TO HAVE THREE DISTINCT POINTS OF ACCESS DURING EACH PHASE OF CONSTRUCTION. EACH PHASE MUST PROVIDE SUFFICIENT ROADWAYS TO ASSURE EMERGENCY VEHICLE ACCESS TO WITHIN 150 FT. OF ALL EXTERIOR PORTIONS OF THE BUILDINGS WITH SUFFICIENT FIRE HYDRANTS ON A LOOPEd WATER LINE SYSTEM TO PROVIDE THE REQUIRED FIRE FLOWS FOR EACH SITE.
 9. ACCESS TO BUILDINGS FOR THE PURPOSE OF FIRE DEPARTMENT VEHICLE ACCESS SHALL BE PROVIDED AT ALL TIMES DURING CONSTRUCTION. CONSTRUCTION MATERIALS SHALL NOT BLOCK ACCESS TO BUILDINGS, HYDRANTS OR FIRE APPLIANCES.
 10. DEVELOPMENTS OF ONE OR TWO-FAMILY DWELLINGS WHERE THE NUMBER OF DWELLINGS EXCEEDS 30 SHALL BE PROVIDED WITH SEPARATE AND APPROVED FIRE APPARATUS ROAD... (2015 IFC D107.1). THEY SHALL BE PLACED AT A DISTANCE APART EQUAL TO OR NOT LESS THAN ONE-HALF OF THE LENGTH OF THE OVERALL MAXIMUM DIMENSION OF THE PROPERTY OR AREA TO BE SERVED, MEASURED IN A STRAIGHT LINE BETWEEN ACCESSES (2015 IFC D107.2)

Please add to this note: "The Infrastructure Site Plan (ISP) and civil plans for the associated infrastructure must be approved prior to the issuance of building permits. Construction shown on the civil plans for the ISP for associated infrastructure must be initially accepted by the City prior to the issuance of Temporary Certificate of Occupancy (TCO) or Certificate of Occupancy (C) per the approved Public Improvement Plan."



DEWBERRY RESPONSE:
NOTE HAS BEEN ADDED
TO NOTE #4.

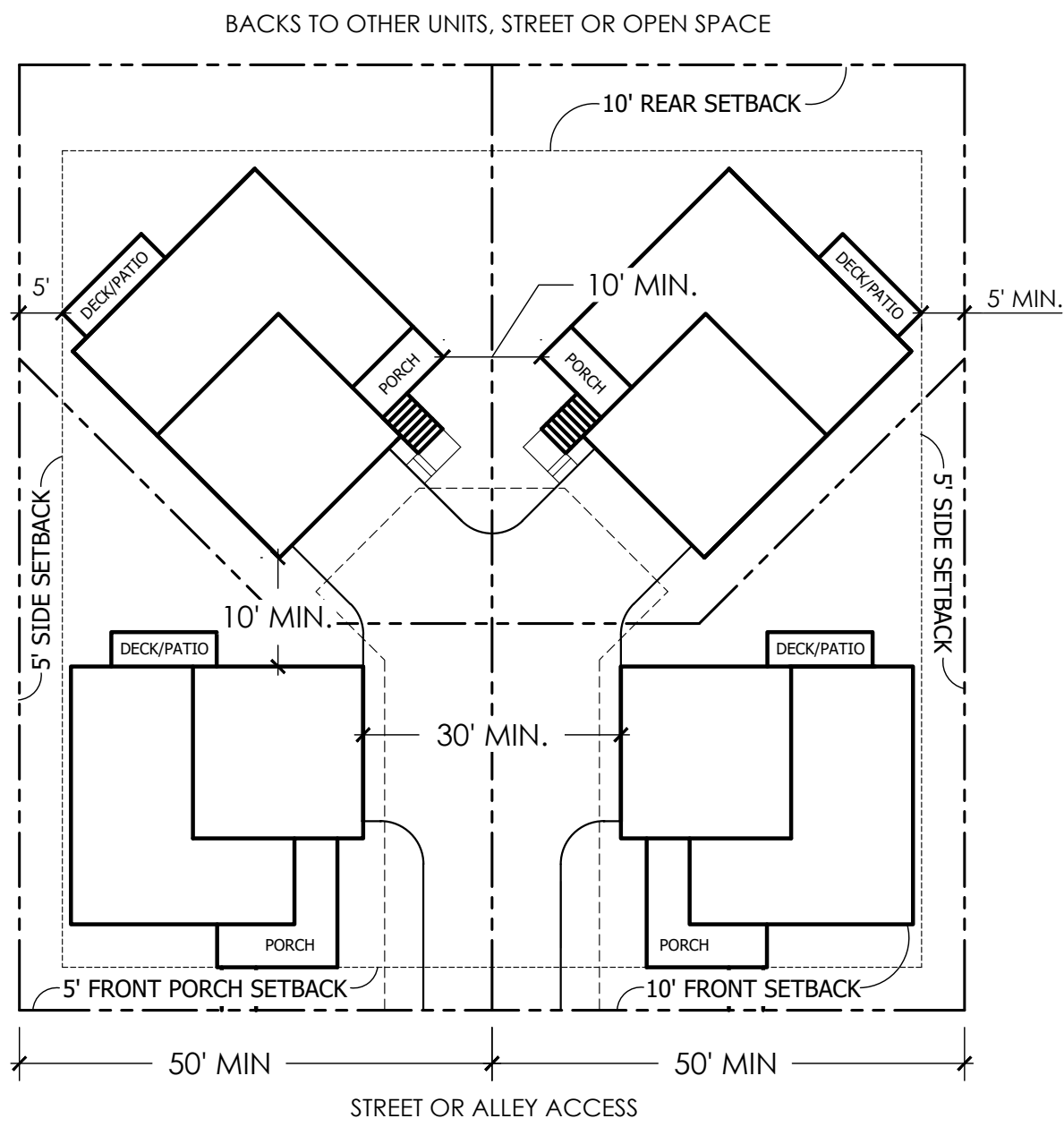


P:\OAKWOOD_MASTER_FOLDER\GVR_EAST-CURRENT\PLING 15\CAD\SUBMITTALS\GVR_EAST-CURRENT\PLING 15 SITE PLAN\11-SHEETS\F-15 ARCHITECTURE.DWG 8/31/2022 11:42 AM DILLON COOK

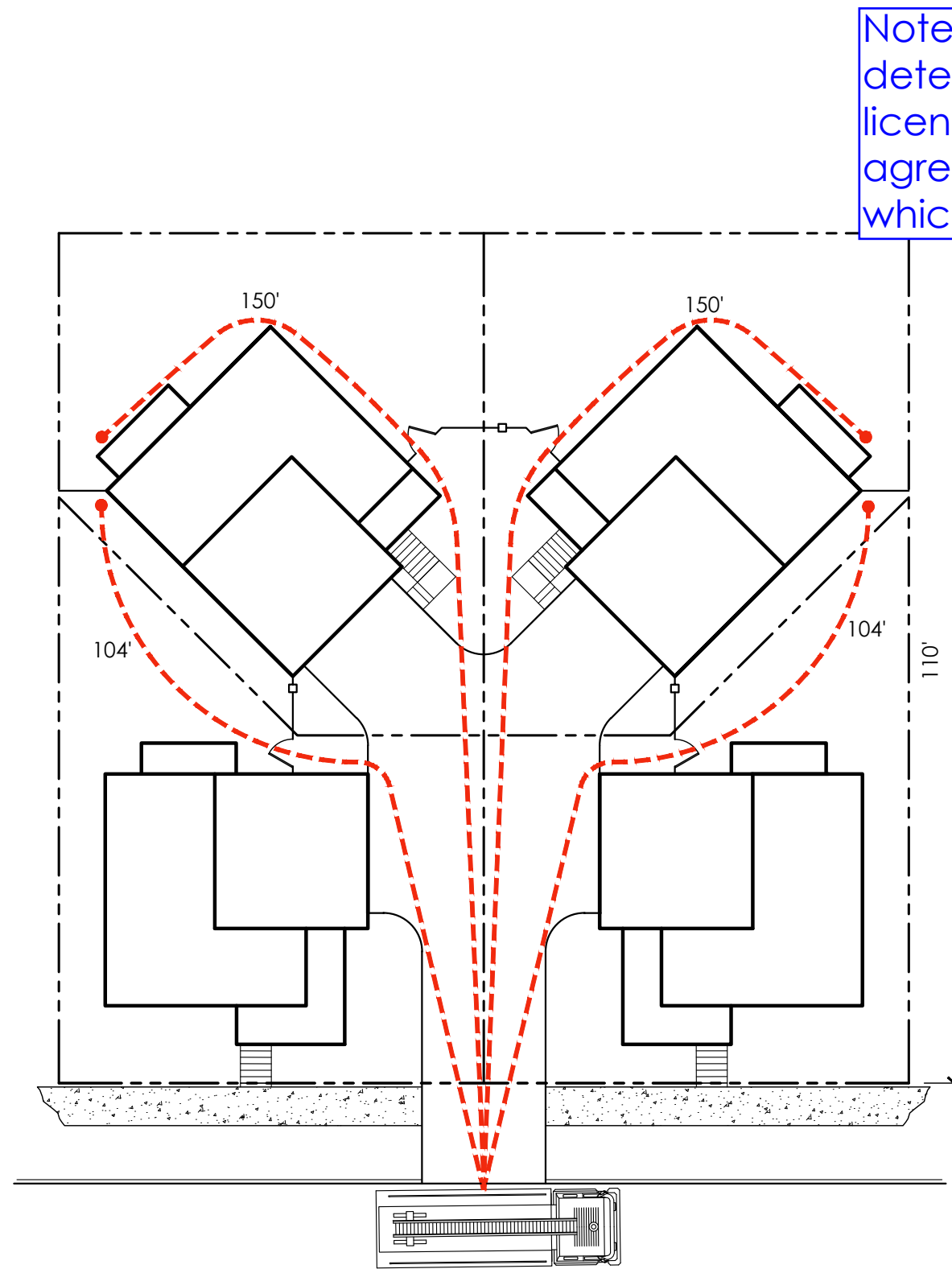
LOT DATA TABLE AND SETBACK TABLE					
UNIT TYPE:	SINGLE FAMILY DETACHED SMALL LOT	SINGLE FAMILY DETACHED STANDARD LOT	SINGLE FAMILY DETACHED STANDARD LOT - 60'+	SINGLE FAMILY MOTOR COURT STANDARD LOT	SINGLE FAMILY MOTOR COURT SMALL LOT
NUMBER OF LOTS	0	32	35	0	99
LOT %	0%	19%	21%	0%	59%
LOT TYPE	FRONT LOAD	FRONT LOAD	FRONT LOAD	ALT LOADED	ALT LOADED
MIN. LOT SQ. FT.	< 4,500 SF	4,500 SF	6,000 SF	4,500 SF	2,500 SF
MIN. STREET FRONTAGE	45 FT	50 FT	60 FT	50 FT	50 FT
MIN. FRONT SETBACK	10 FT - HOUSE 18 FT - GARAGE	15 FT - HOUSE 20 FT - GARAGE	15 FT - HOUSE 20 FT - GARAGE	10 FT	10 FT
MIN. PORCH SETBACK	10 FT	10 FT	10 FT	5 FT	5 FT
MIN. SIDE SETBACK - INTERIOR **	5 FT*	5 FT*	5 FT*	5 FT*	5 FT*
MIN. SIDE SETBACK - CORNER **	10 FT	10 FT	10 FT	10 FT	10 FT
MIN. REAR YARD SETBACK	10 FT	10 FT	10 FT	10 FT	10 FT
MIN. REAR YARD SETBACK FOR FRONT AND INTERNAL LOTS	N/A	N/A	N/A	5 FT	5 FT
MAX. BLDG HEIGHT	35 FT	35 FT	35 FT	35 FT	35 FT

NOTE:
SHARED USE EASEMENT IS REQUIRED WHEN A PORTION OF THE PRIVATE, USABLE OUTDOOR SPACE IS LOCATED ON THE ADJACENT NEIGHBOR'S SIDE YARD. SUCH EASEMENT SHALL BE RECORDED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

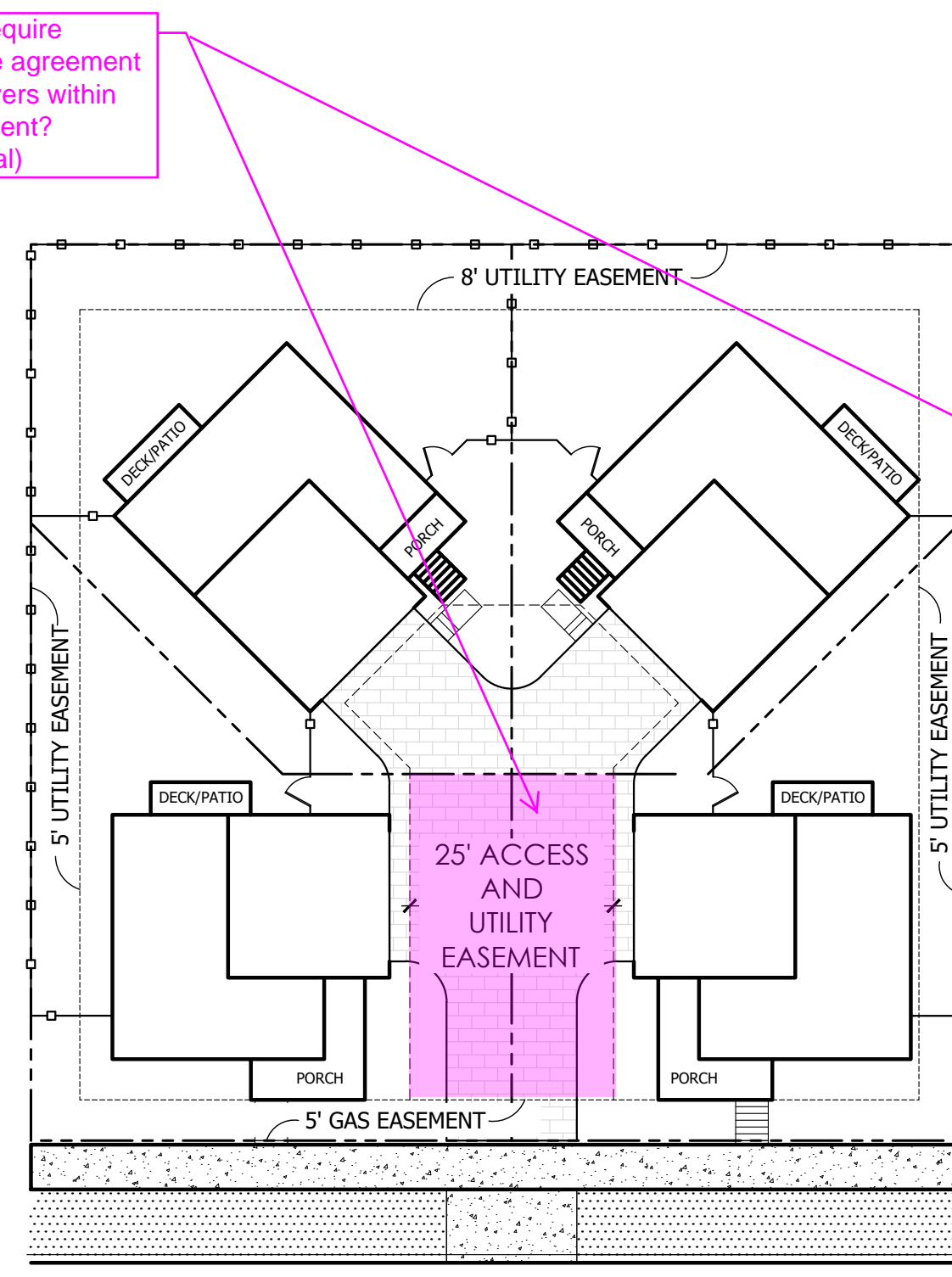
* MINIMUM 10' BUILDING SEPARATION
** MINIMUM SIDE ON STREET SETBACK IS 10 FEET. MINIMUM SIDE ON OPEN SPACE SETBACK IS 5 FT.
*** NO FRONT-LOADED SINGLE-FAMILY DETACHED DWELLING MAY BE LOCATED ON A LOT LESS THAN 45-FT IN WIDTH
**** LOTS ARE CONSIDERED "SMALL" IF THEY DO NOT MEET THE MINIMUM LOT SQUARE FOOTAGE OR MINIMUM LOT FRONTAGE REQUIREMENTS FOR A STANDARD LOT.
***** MOTOR COURT LOTS ARE CONSIDERED "SMALL MOTOR COURT" WHEN THEY HAVE LESS THAN 50' OF STREET FRONTAGE OR ARE LESS THAN 4500SF.



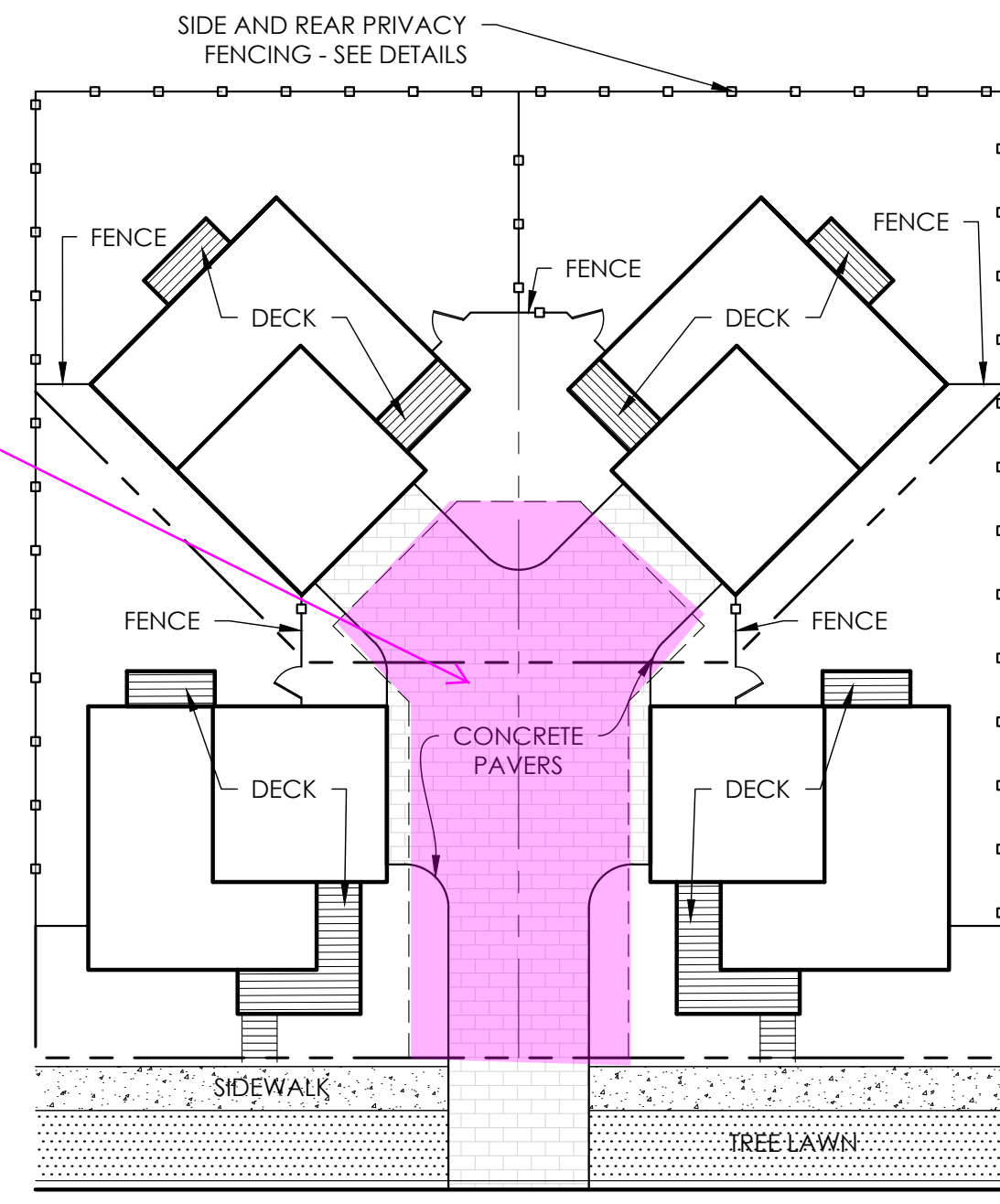
TYPICAL CARRIAGE HOUSE MOTORCOURT SETBACKS



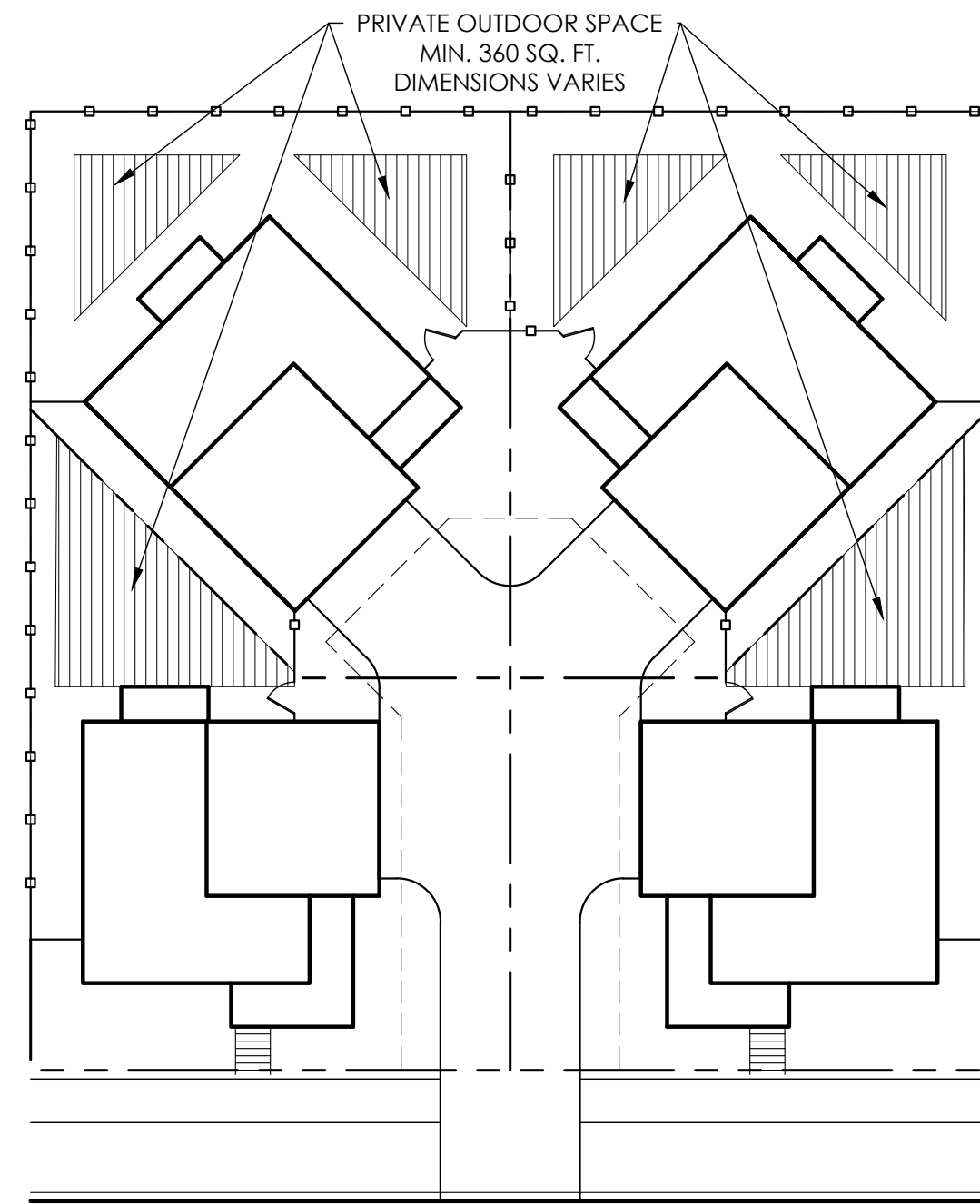
TYPICAL CARRIAGE HOUSE MOTORCOURT HOSE PULL



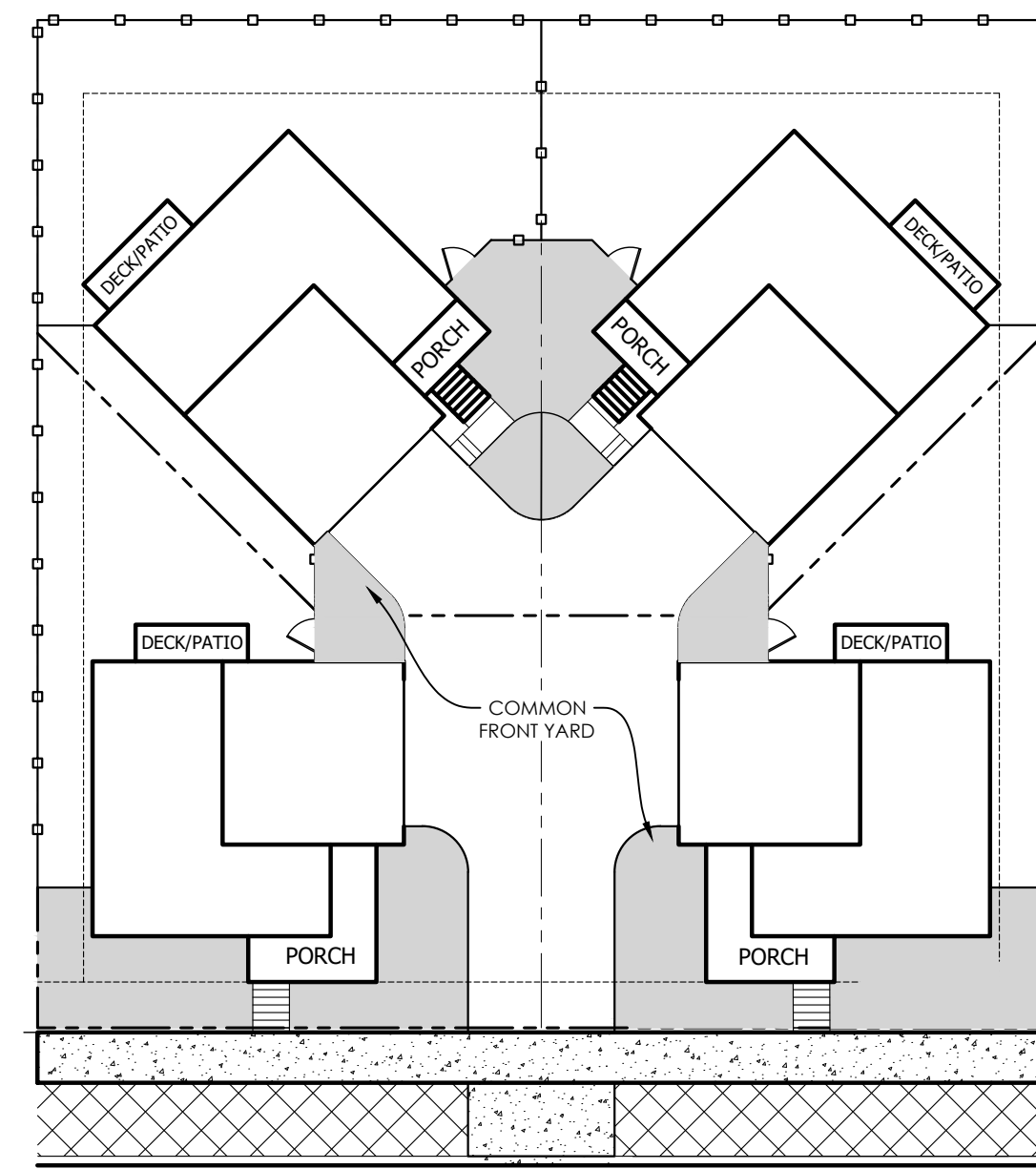
TYPICAL CARRIAGE HOUSE MOTORCOURT EASEMENTS



TYPICAL CARRIAGE HOUSE MOTORCOURT MATERIALS AND FENCING



TYPICAL CARRIAGE HOUSE MOTORCOURT PRIVATE OUTDOOR SPACE



TYPICAL CARRIAGE HOUSE MOTORCOURT LANDSCAPE

LEGEND

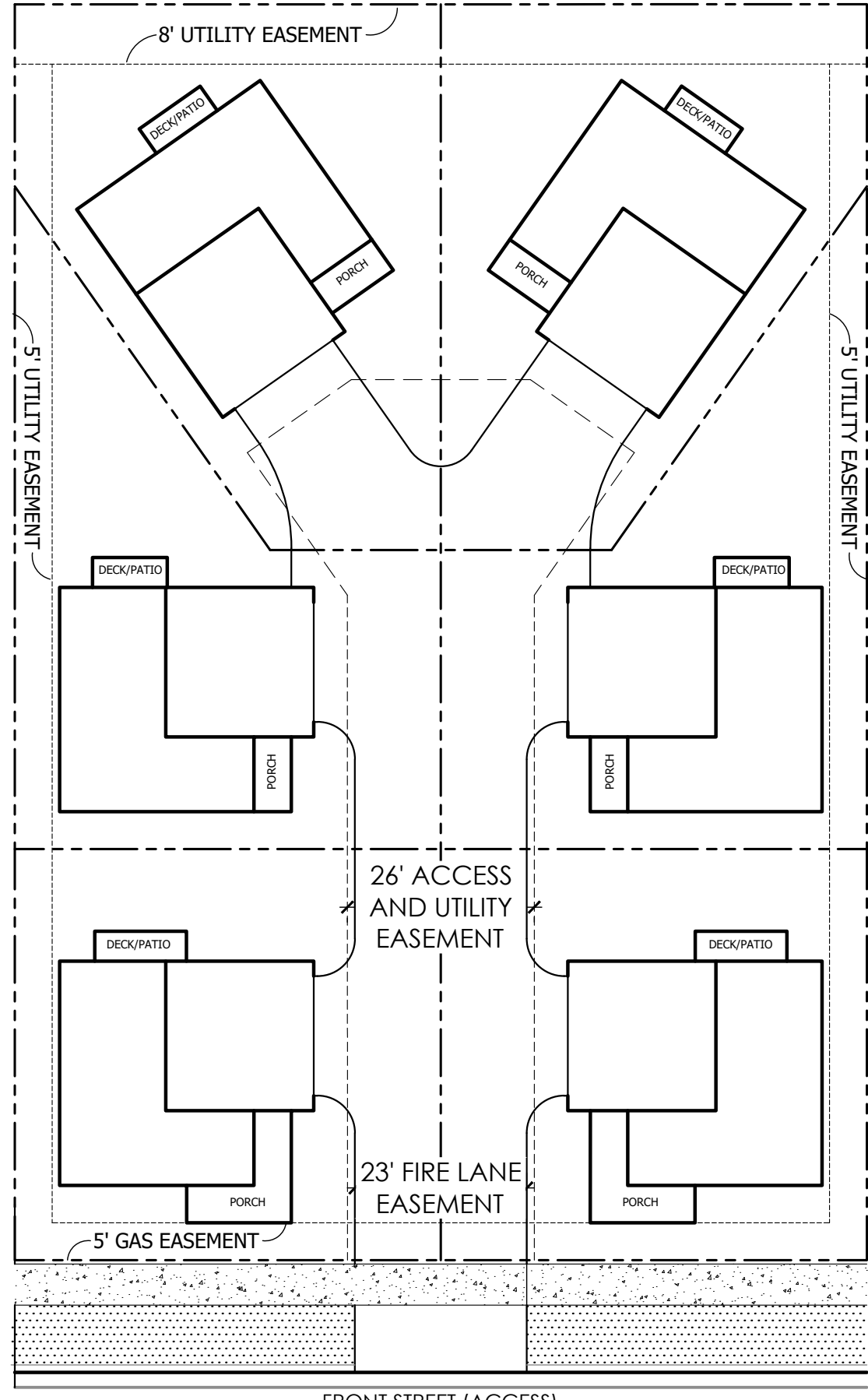
- FRONT/SIDE YARD LANDSCAPE
- CURBSIDE LANDSCAPE
- PROPERTY LINE
- PRIVACY FENCE

NOTE: SEE WATER WISER WISE SHEETS 32-36

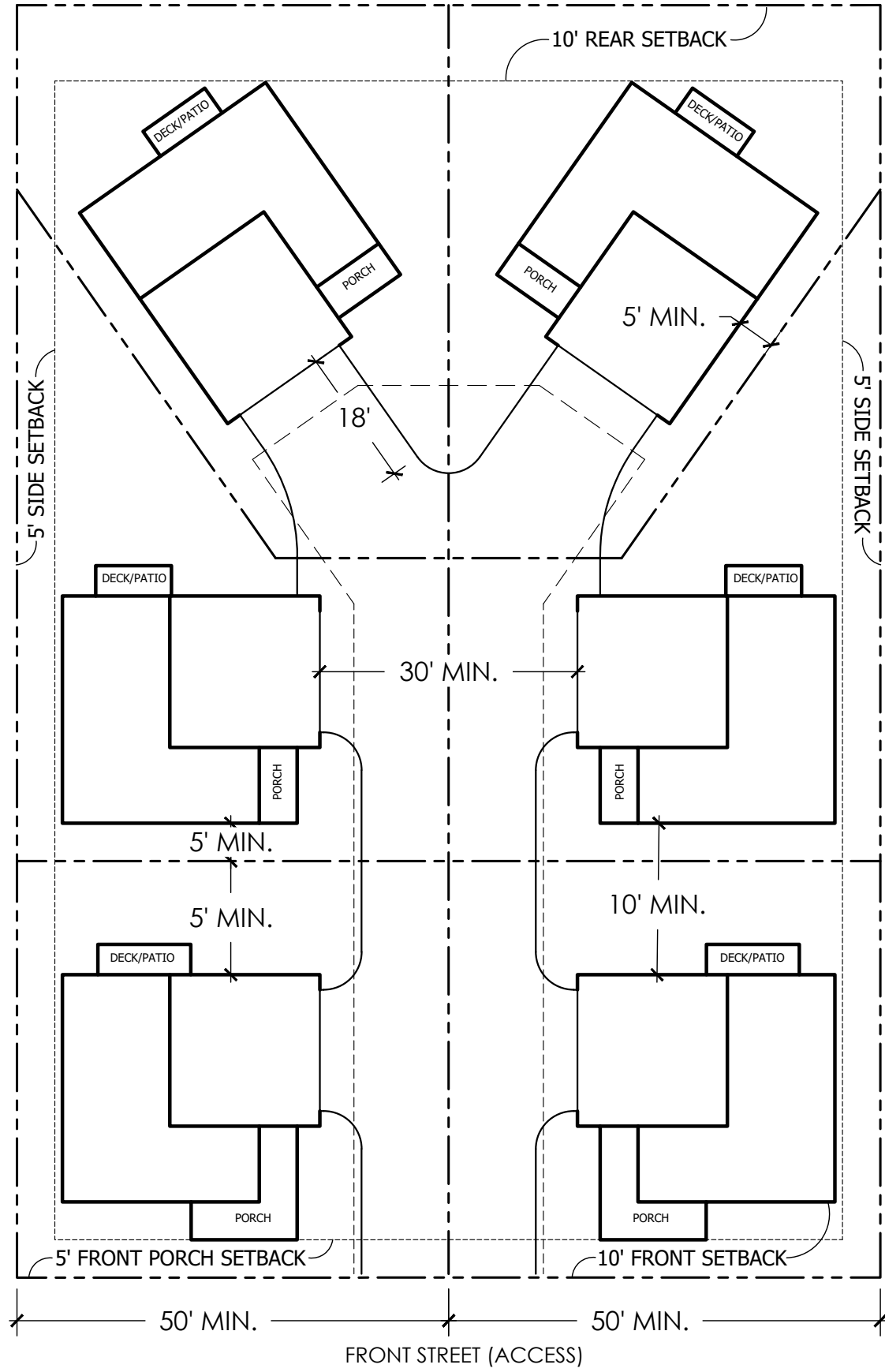
NOTE:

- SHARED USE EASEMENT IS REQUIRED WHEN A PORTION OF THE PRIVATE, USABLE OUTDOOR SPACE IS LOCATED ON THE ADJACENT NEIGHBOR'S SIDE YARD. SUCH EASEMENT SHALL BE RECORDED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
- PAVERS SHALL BE MAINTAINED BY THE METRO DISTRICT INCLUDING THE PAVERS OUTSIDE THE EASEMENTS.

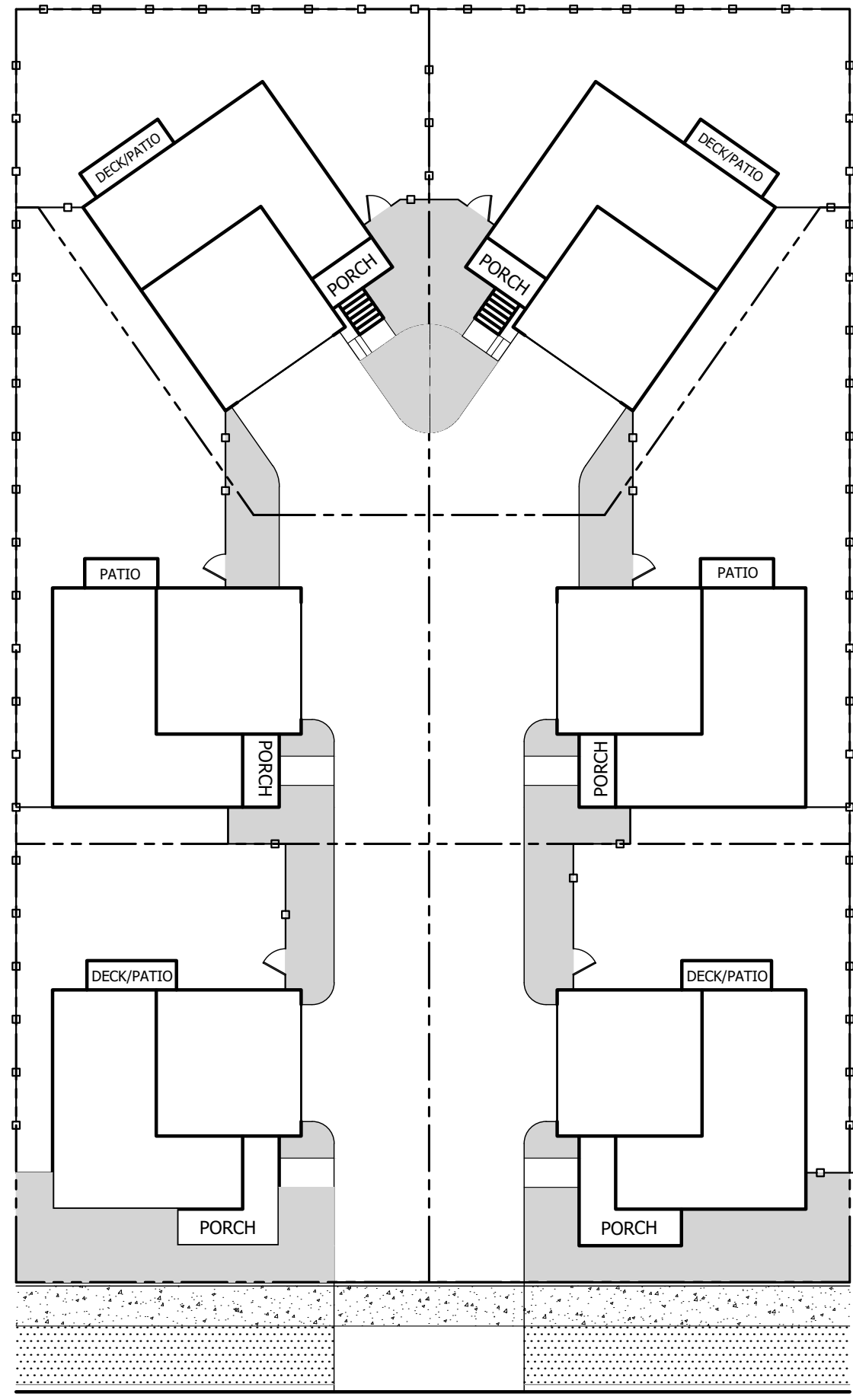
P:\OAKWOOD MASTER FOLDER\OAKWOOD EAST-CURRENT\PLING 15\CAD\SUBMITTALS\OAKWOOD EAST SITE PLAN\15-SHEETS\15-ARCHITECTURE.DWG 8/31/2022 11:43 AM DILLON COOK



TYPICAL CARRIAGE HOUSE MOTORCOURT
EASEMENTS

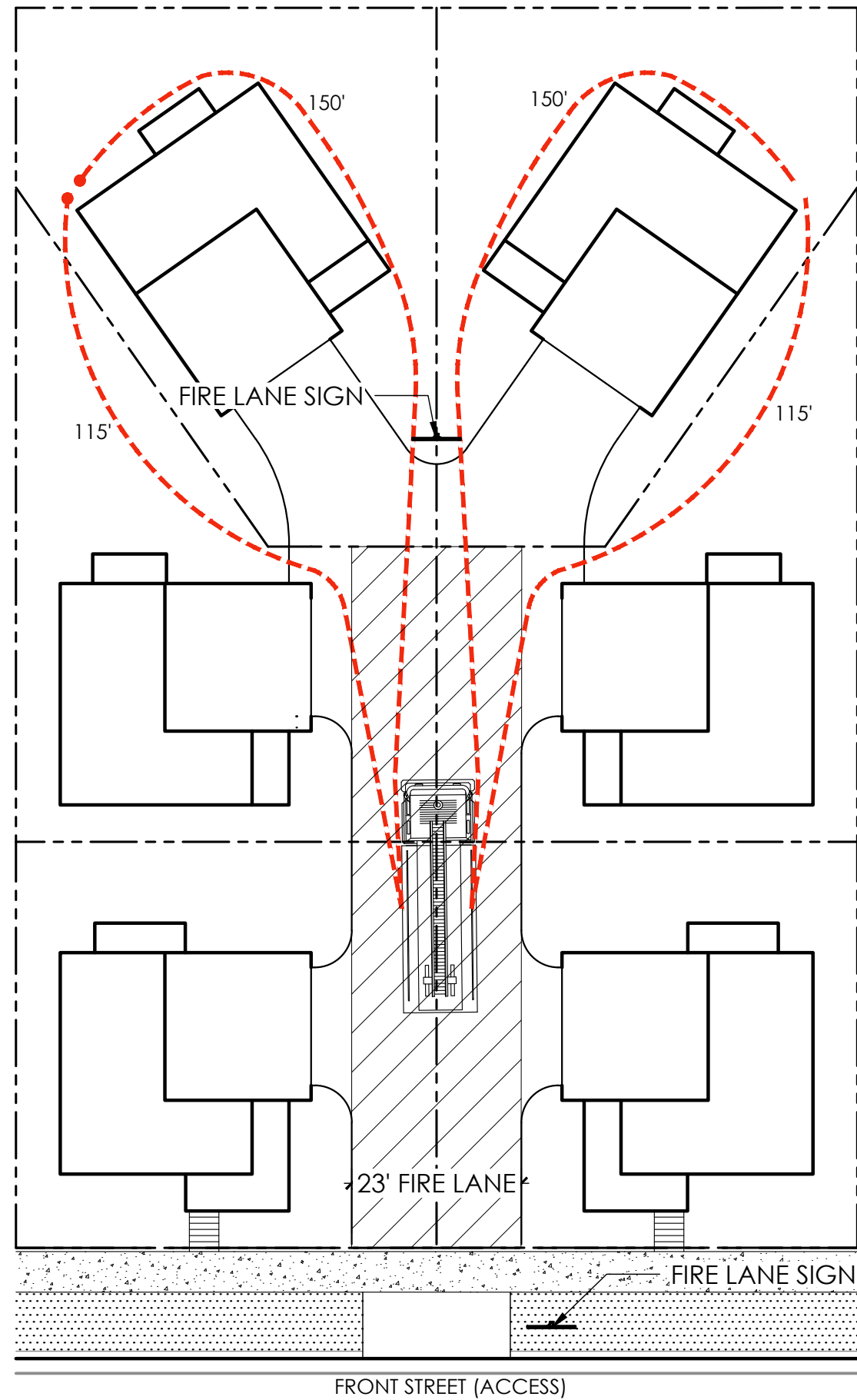


TYPICAL CARRIAGE HOUSE MOTORCOURT
SETBACKS

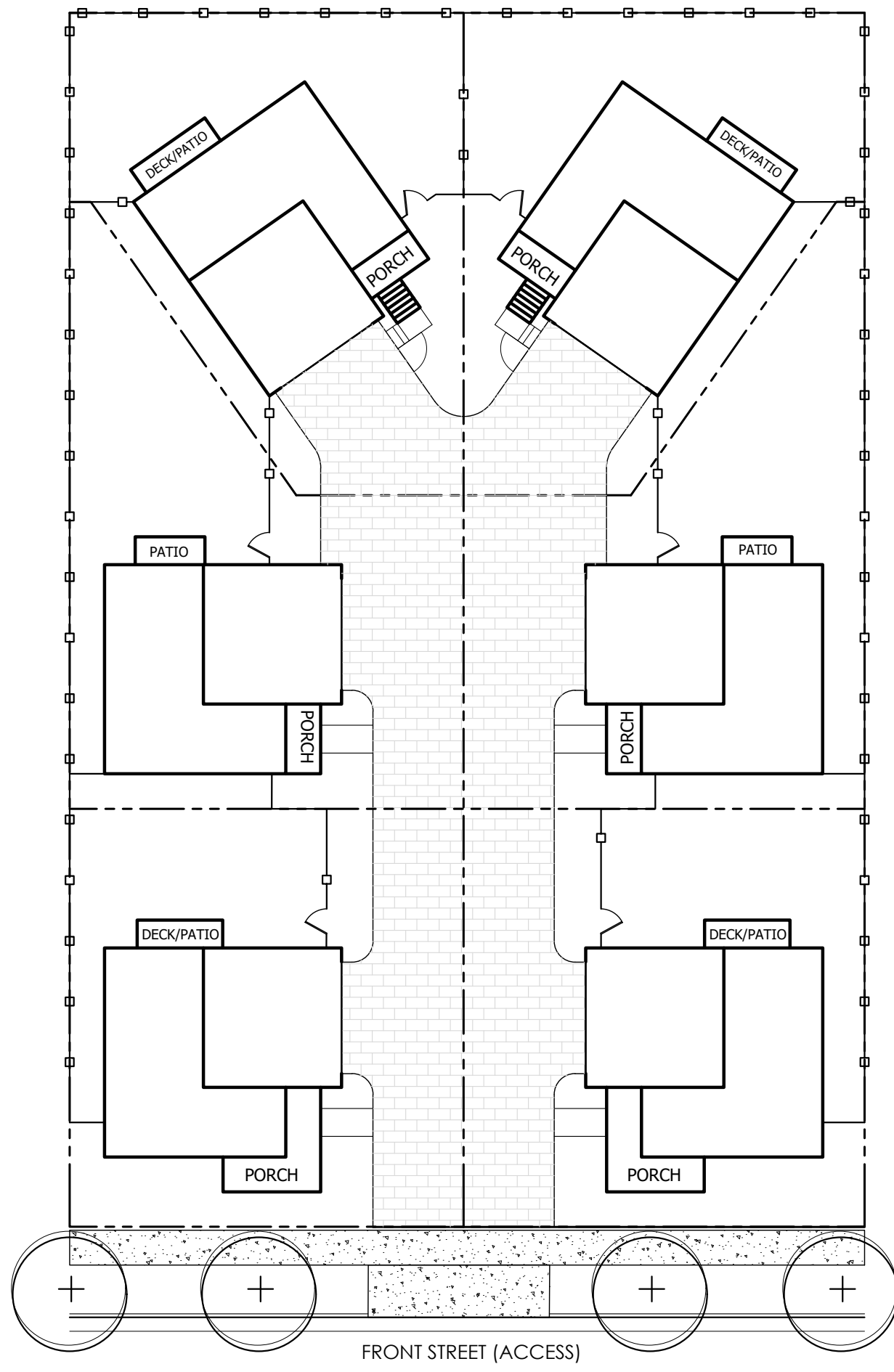


TYPICAL CARRIAGE HOUSE MOTORCOURT
LANDSCAPE

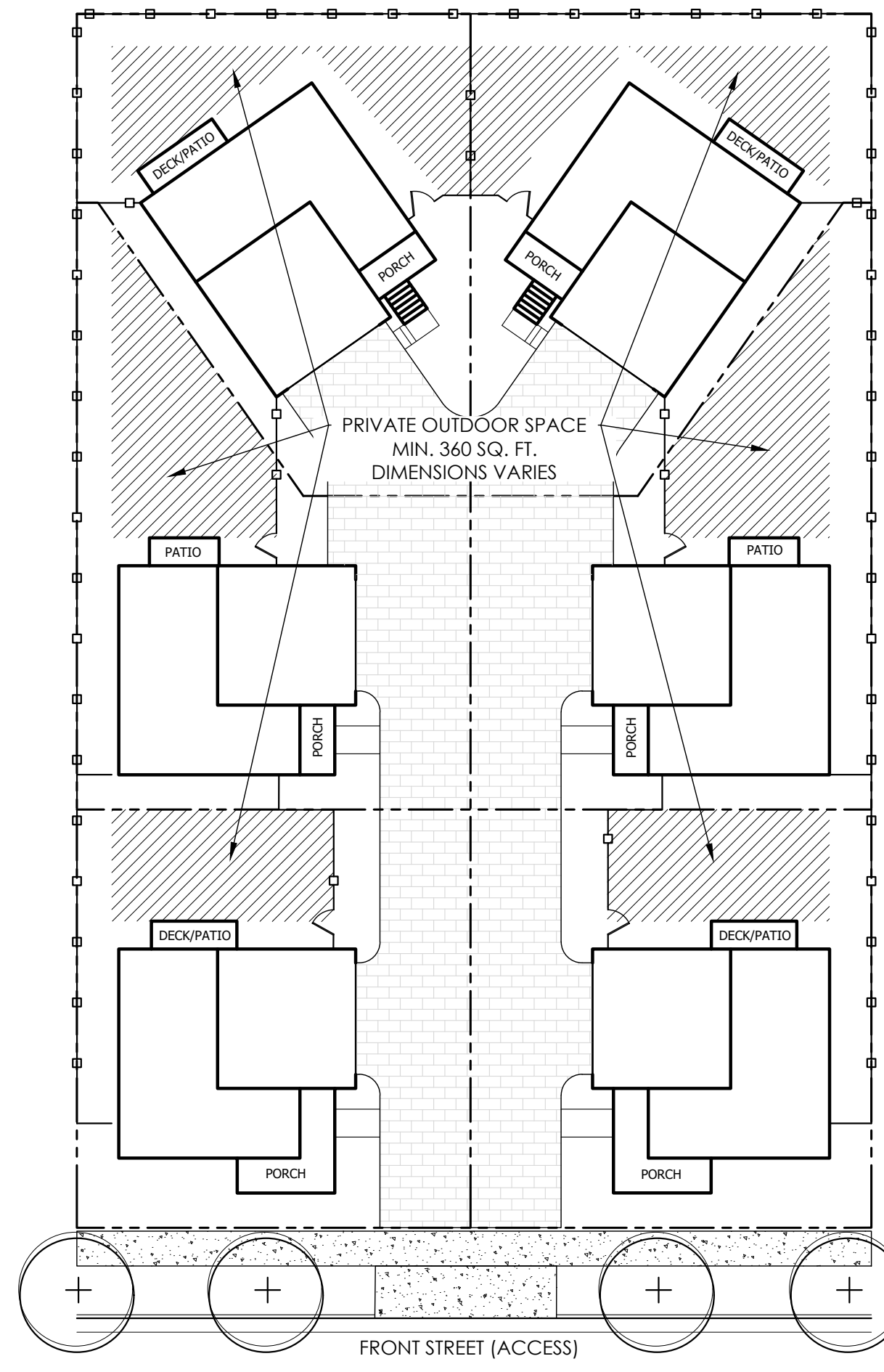
LEGEND
FRONT/SIDE YARD
LANDSCAPE
CURBSIDE
LANDSCAPE
PROPERTY LINE
PRIVACY FENCE
NOTE: SEE WATER WISER WISE
SHEETS 44-53



TYPICAL CARRIAGE HOUSE MOTORCOURT
HOSE PULL



TYPICAL CARRIAGE HOUSE MOTORCOURT
MATERIALS AND FENCING



TYPICAL CARRIAGE HOUSE MOTORCOURT
OPEN SPACE

NOTE:

1. SHARED USE EASEMENT IS REQUIRED WHEN A PORTION OF THE PRIVATE, USABLE OUTDOOR SPACE IS LOCATED ON THE ADJACENT NEIGHBOR'S SIDE YARD. SUCH EASEMENT SHALL BE RECORDED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
2. PAVERS SHALL BE MAINTAINED BY THE METRO DISTRICT INCLUDING THE PAVERS OUTSIDE THE EASEMENTS.

GREEN VALLEY RANCH EAST SITE PLAN 15
SITE PLAN

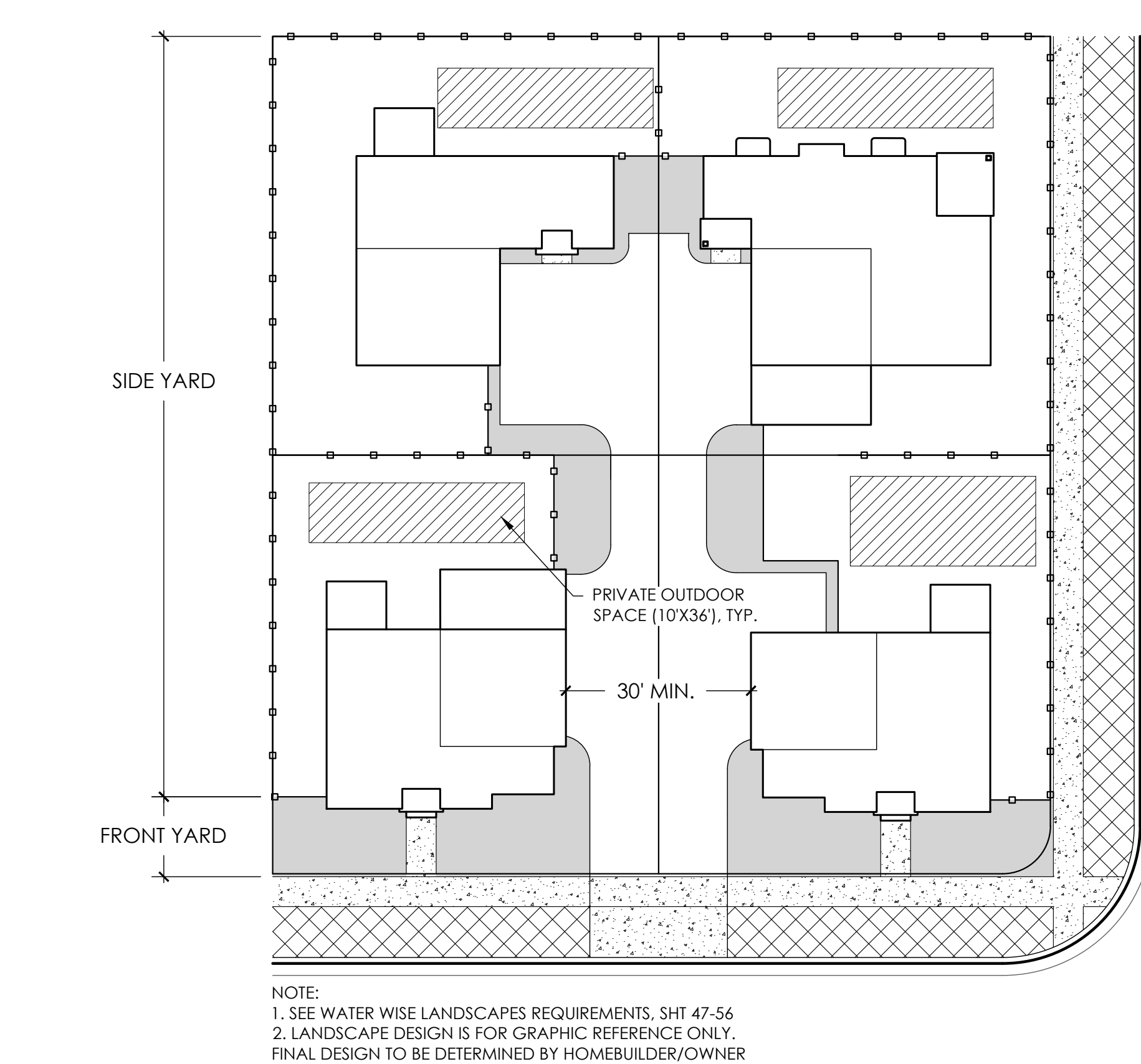
OAKWOOD HOMES
4908 TOWER ROAD
DENVER, CO 80249
Tel: (303)486-8500
Contact: David Carro, RLA

DOCUMENT AMENDMENTS	
No.	Description
1	02/28/22

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NOT FOR
CONSTRUCTION

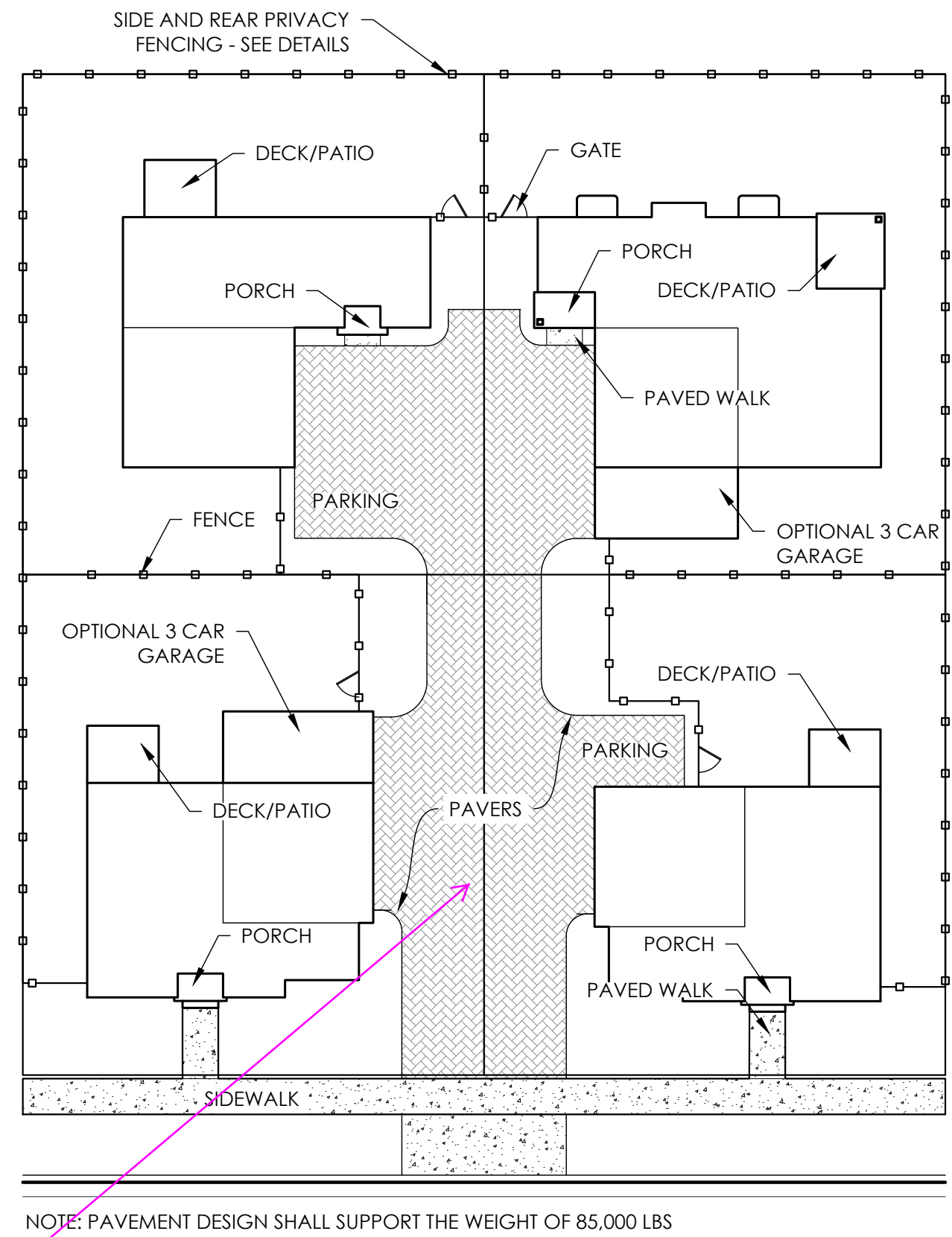
Project Number: 50144653
Designed By: CETB
Drawn By: OCB
Checked By: TDK
Sheet Number: 7

P:\OAKWOOD MASTER FOLDER\GVR EAST-CURRENT\FLING 15\CAD\SUBMITTALS\GVR F15 SITE PLAN\11-SHEETS\F15 ARCHITECTURE.DWG 8/31/2022 11:45 AM DILLON COOK

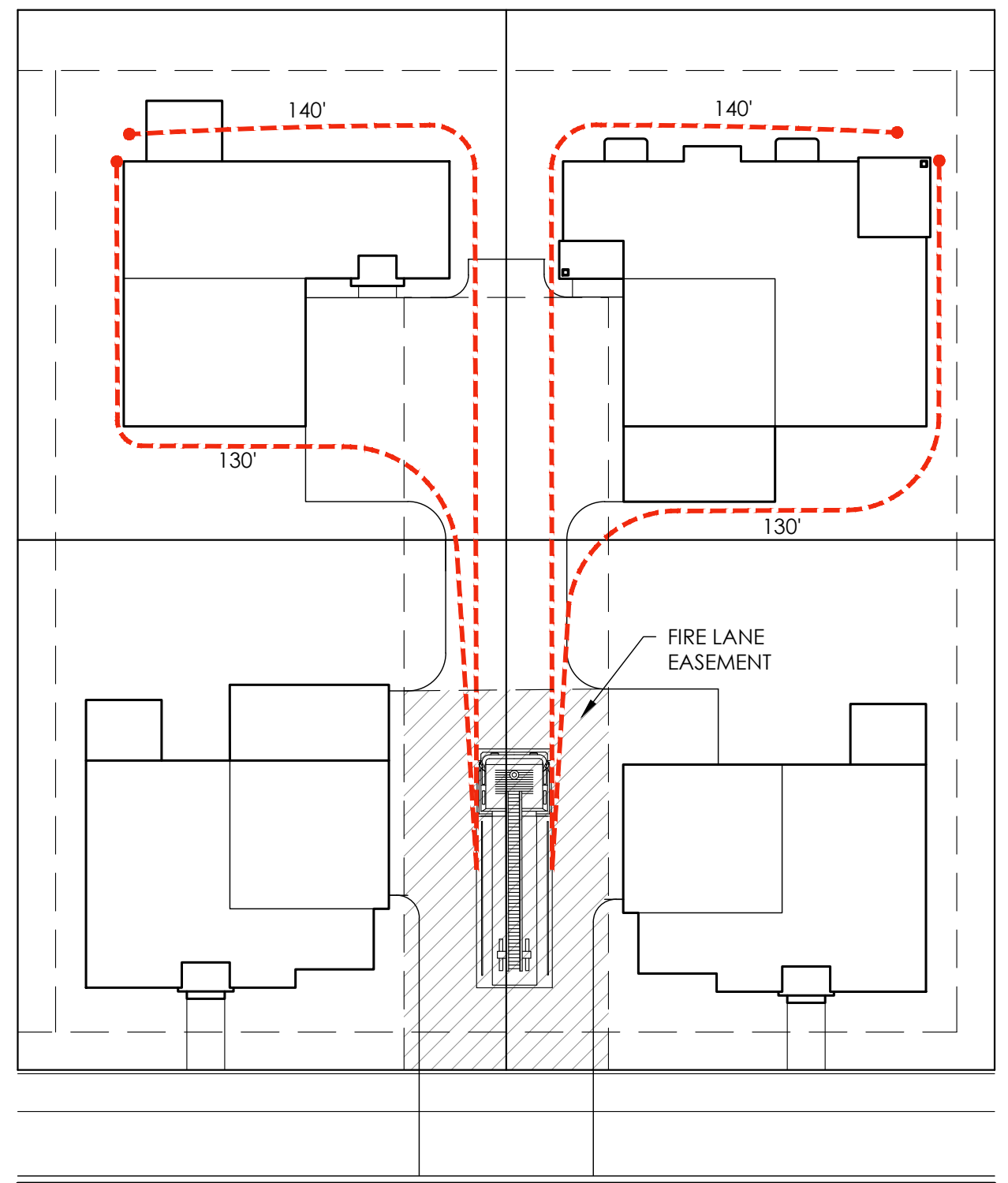


LEGEND
FRONT/SIDE YARD LANDSCAPE
CURBSIDE LANDSCAPE
PROPERTY LINE
PRIVACY FENCE
NOTE: SEE WATER WISE WISE SHEETS 32-36

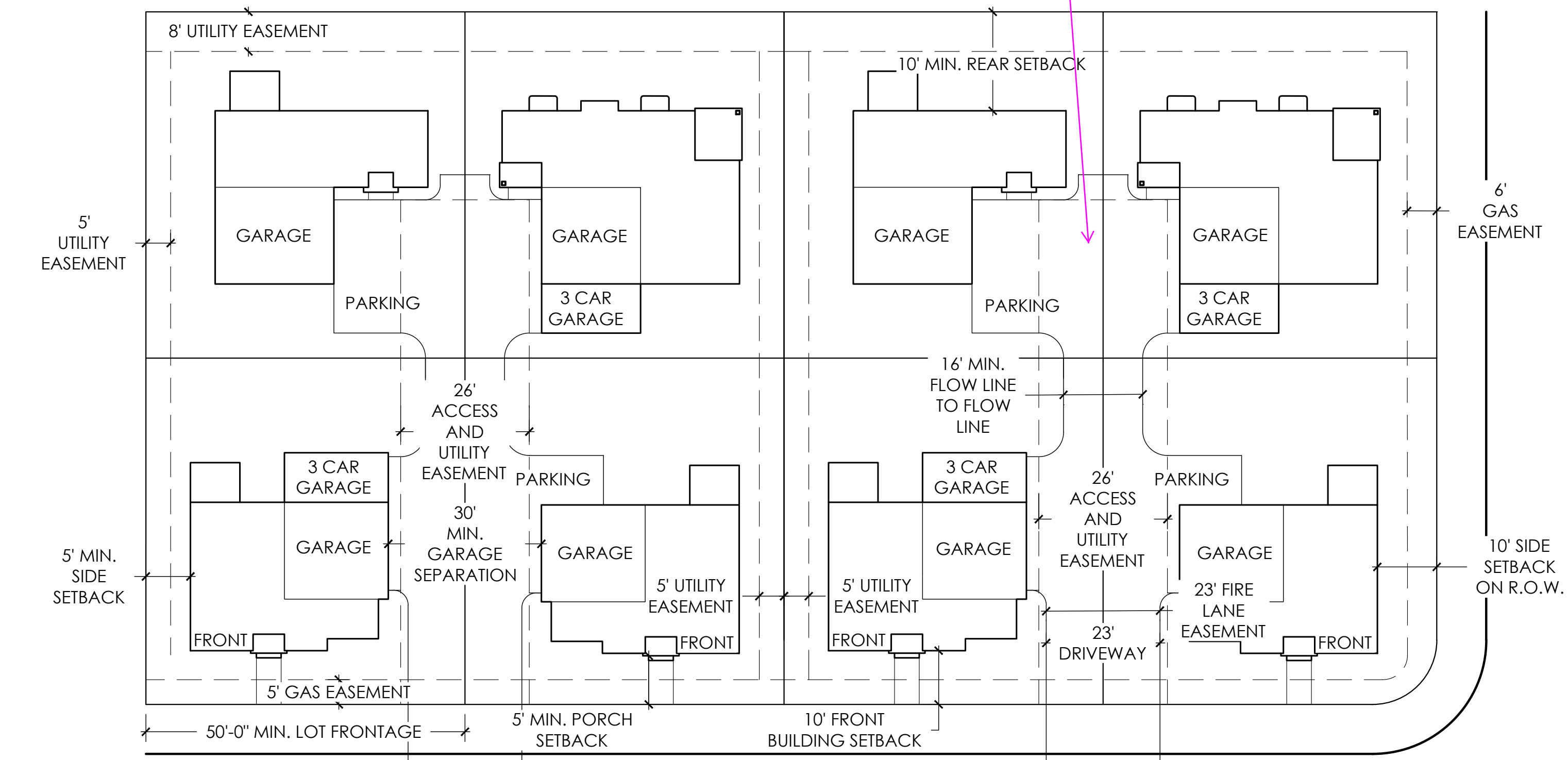
TYPICAL PORCHLIGHT MOTORCOURT LANDSCAPE



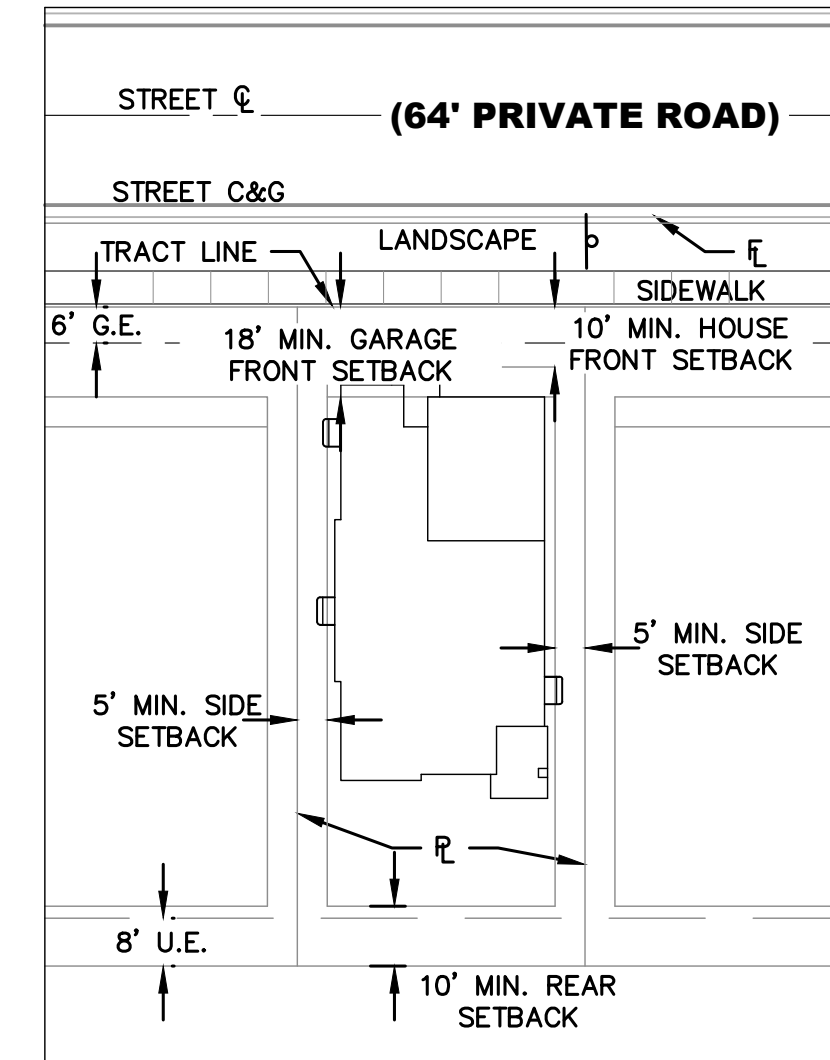
TYPICAL PORCHLIGHT MOTORCOURT MATERIALS AND FENCING



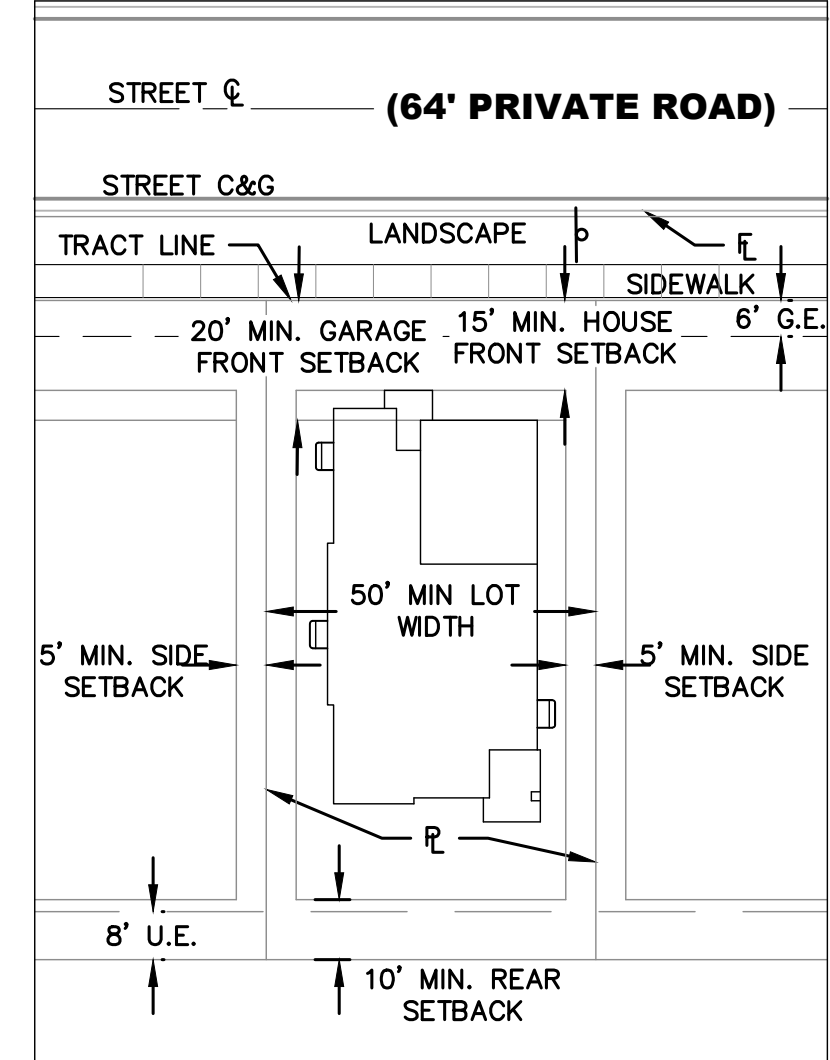
TYPICAL PORCHLIGHT MOTORCOURT HOSEPULL



TYPICAL PORCHLIGHT MOTORCOURT SETBACKS AND EASEMENTS



TYPICAL SMALL LOT: SETBACKS AND EASEMENTS DETAIL

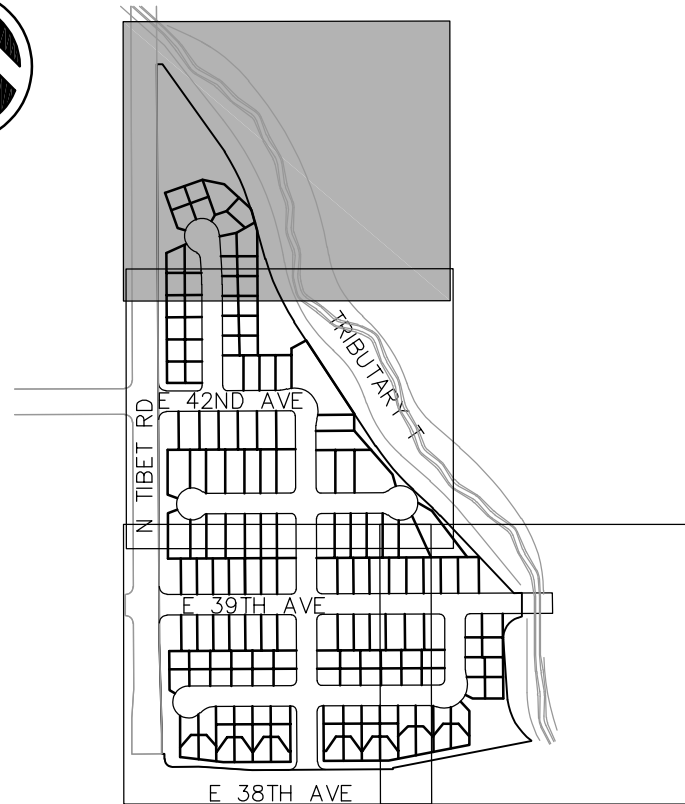
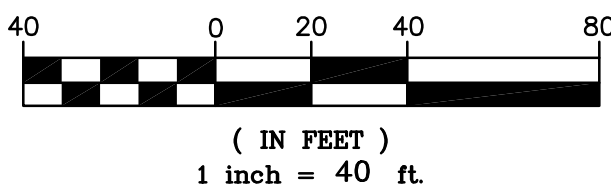
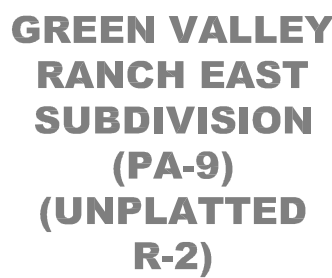


TYPICAL STANDARD LOT 50' - 60'+: SETBACKS AND EASEMENTS DETAIL

- NOTE:
1. SHARED USE EASEMENT IS REQUIRED WHEN A PORTION OF THE PRIVATE, USABLE OUTDOOR SPACE IS LOCATED ON THE ADJACENT NEIGHBOR'S SIDE YARD. SUCH EASEMENT SHALL BE RECORDED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
 2. PAVERS SHALL BE MAINTAINED BY THE METRO DISTRICT INCLUDING THE PAVERS OUTSIDE THE EASEMENTS.

DOCUMENT AMENDMENTS		
No.	Date	Description
1	02/28/22	1ST SUBMITTAL

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CONSTRUCTION



KEY MAP
SCALE: 1"=600'

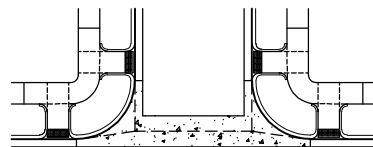
The diagram illustrates a street cross-section with the following elements from top to bottom:

- BOUNDARY LINE**: A solid horizontal line.
- LOT PHASE LINE**: A horizontal line with alternating black and white rectangular blocks.
- EASEMENT LINE**: A horizontal line with short, evenly spaced vertical dashes.
- SECTION LINE**: A horizontal line with short, evenly spaced vertical dashes.
- HALF-SECTION LINE**: A horizontal line with short, evenly spaced vertical dashes.
- RIGHT OF WAY LINE**: A solid horizontal line.
- CENTER LINE OF STREET**: A solid horizontal line.
- LOT LINE**: A solid horizontal line.
- BUILDING SET BACK**: A solid horizontal line.
- SIGHT LINE**: A solid horizontal line.

BLOCK NUMBER



CURB, GUTTER, CROSSPAN,
SIDEWALK & RAMP



STREET SIGN

WATER METE

FIRE HYDRANT AND VALVE

EX. FIRE HYDRANT

WATER VALVE

STREET LIGHT . .

EX. STREET LIGHT

STORM MANHOLE

STORM INLET . . .

FLARED END SECT

EX EASEMENT LINE

- 1 SIGHT LINES
- 2 STOP SIGN & STREET SIGN
- 3 SPEED LIMIT SIGN
- 4 DEAD END SIGN
- 5 KEEP RIGHT SIGN

1. ALL WALKS ARE PUBLIC UNLESS OTHERWISE NOTED.
2. ALL CURB RETURN RADIi AT LOCAL TO LOCAL ARE 15'. ALL CURB RETURN RADIi AT LOCAL TO COLLECTOR ARE 20'. ALL CURB RETURN AT LOCAL/COLLECTOR TO ARTERIAL INTERSECTIONS ARE 25'.
3. ALL PRIVATE STORM PIPES IN EASEMENTS SHALL BE INCLUDED IN A MASTER LICENSE AGREEMENT.
4. STREET LIGHT LOCATIONS SHOWN ARE CONCEPTUAL AND FINAL STREET LIGHT LOCATIONS WILL BE DETERMINED BY PHOTOMETRIC ANALYSIS OR SPACING SUBMITTED WITH THE STREET LIGHTING PLAN IN THE CONCEPT PLAN SUBMITTAL.
5. STREET LIGHTS ARE PRIVATE AND WILL BE OWNED AND MAINTAINED BY THE METRO DISTRICT IN PERPETUITY.
6. "INDIVIDUAL LOT SQUARE FOOTAGE AND ACREAGE ON SITE PLANS MAY VARY FROM FINAL PLAT BY 1.5± OR 0.01 AC± DUE TO SOFTWARE ROUNDING. IN ANY CASE OF DISCREPANCY, INFORMATION ON THE FINAL PLAT SHALL SUPERSEDE"

SITE PLAN

OAKWOOD HOMES

908 TOWER ROAD
DENVER, CO 80249

Tel: (303)486-8500

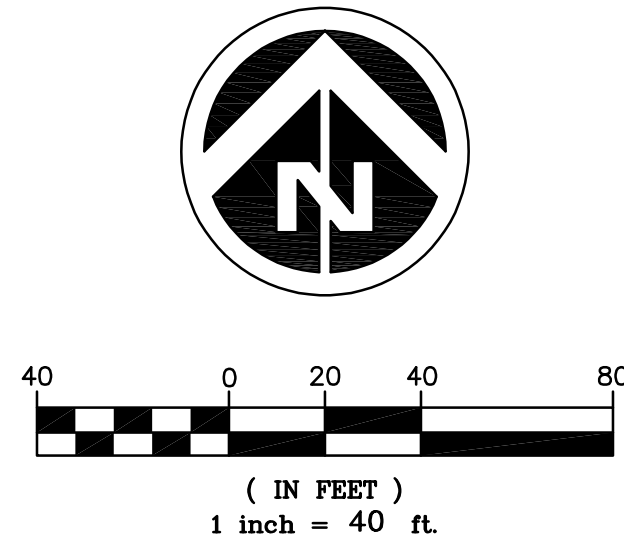
Contact: David Carro, RLA

Project Number: 50144653		Designed By: Drawn By: CETB OCB		Checked By: TDK		Sheet Number: 9	
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		3	08/30/2022			3RD SUBMITTAL	
		2	05/24/2022			2ND SUBMITTAL	
		1	02/28/22			1ST SUBMITTAL	
		No.	Date			Description	
				DOCUMENT AMENDMENTS			

(SEE SHEET 9)



KEY MAP
SCALE: 1"=600'



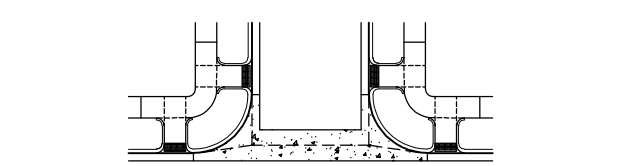
GREEN VALLEY RANCH EAST SUBDIVISION (PA-9) (UNPLATTED R-2)

SYMBOLS AND LINETYPES LEGEND

- BOUNDARY LINE
LOT PHASE LINE
EASEMENT LINE
SECTION LINE
HALF-SECTION LINE
RIGHT OF WAY LINE
CENTER LINE OF STREET
LOT LINE
BUILDING SET BACK
SIGHT LINE

BLOCK NUMBER #

CURB, GUTTER, CROSSPAN, SIDEWALK & RAMP



- STREET SIGN
WATER METER
FIRE HYDRANT AND VALVE
EX. FIRE HYDRANT
WATER VALVE
STREET LIGHT
EX. STREET LIGHT
STORM MANHOLE
STORM INLET
FLARED END SECTION
EX EASEMENT LINE

KEYNOTE

- 1 SIGHT LINES
2 STOP SIGN & STREET SIGN
3 SPEED LIMIT SIGN
4 DEAD END SIGN
5 KEEP RIGHT SIGN

NOTES:

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Dewberry
Dewberry Engineers Inc.
8100 East Maplewood Avenue, Suite 150
Greenwood Village, CO 80111
Contact: Troy Kent, PE
Email: tkent@dewberry.com

GREEN VALLEY RANCH EAST SITE PLAN #15

SITE PLAN

OAKWOOD HOMES

4908 TOWER ROAD
DENVER, CO 80249
Tel: (303)486-8500

Contact: David Carro, RLA

DOCUMENT AMENDMENTS

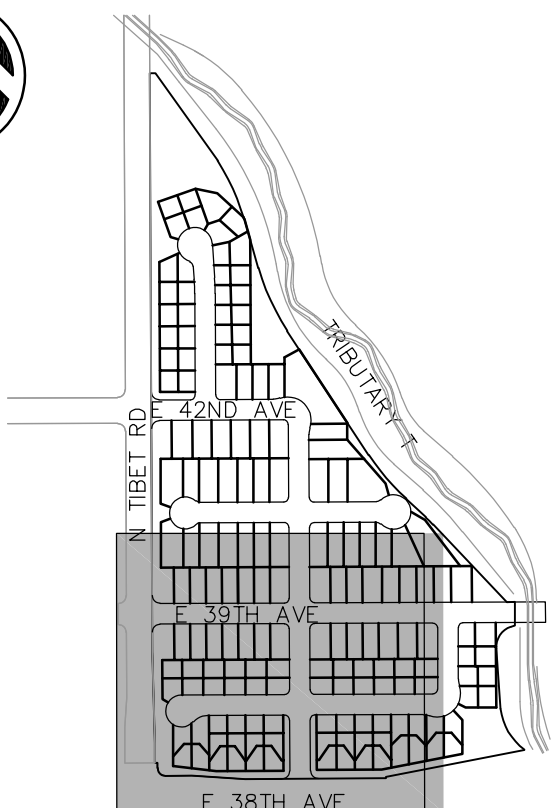
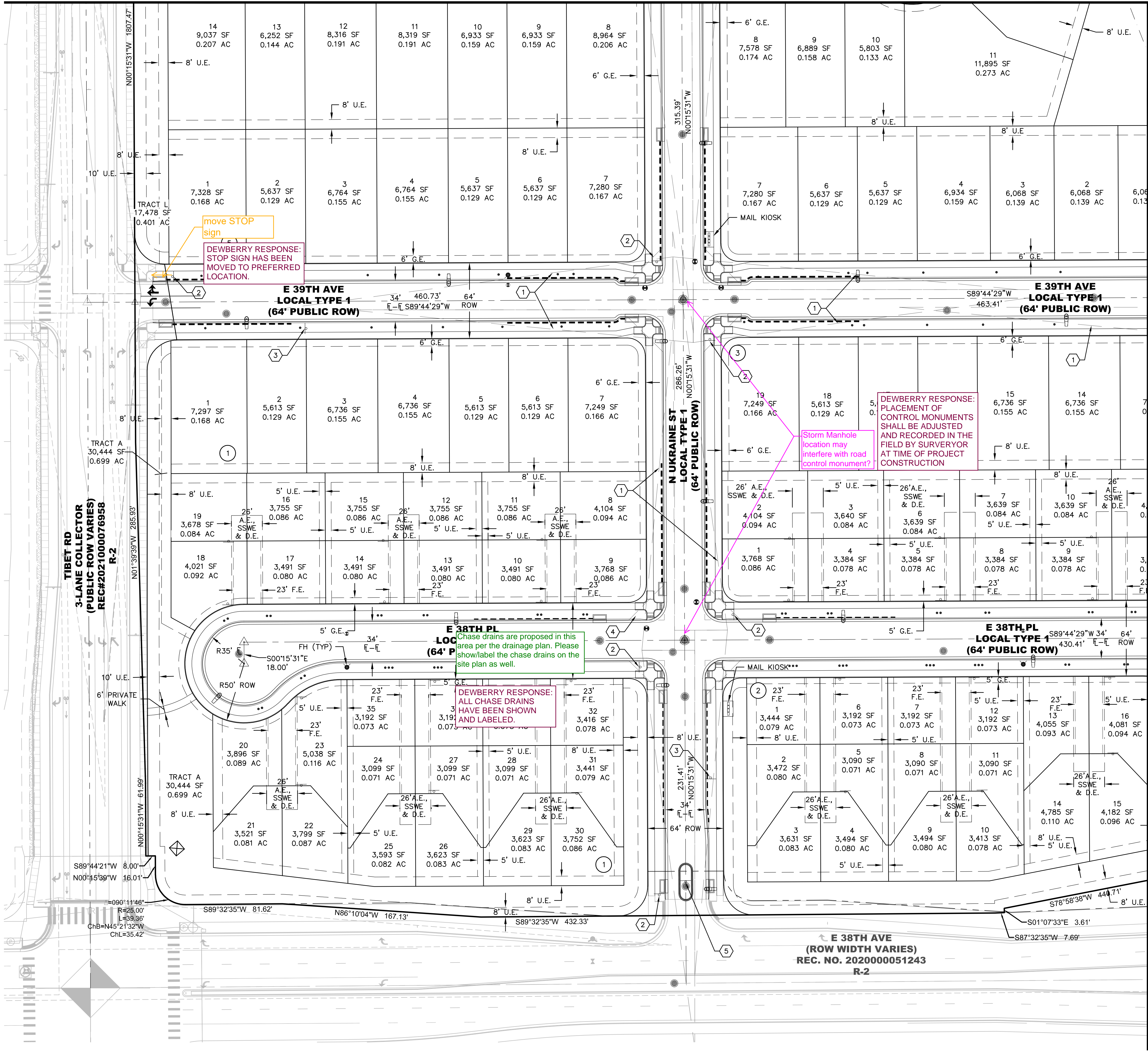
PRELIMINARY
NOT FOR
CONSTRUCTION

Project Number: 50144653
Designed By: Drawn By: CEIB OCB
Checked By: TDK
Sheet Number: 10

(SEE SHEET 8)

J:\DEWBERRY\OAKWOOD HOMES\GREEN VALLEY RANCH EAST-PA8-PLING 15\PLAN SETS\SP\SP-DTL SP--50144653.DWG 8/30/2022 4:37 PM NGUYEN, TUYET TRINH (UNDSEY)

(SEE SHEET 10)



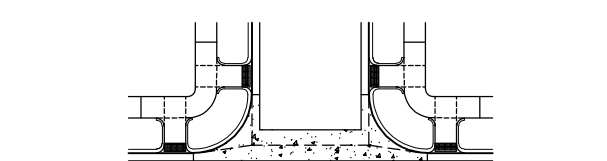
KEY MAP
SCALE: 1"=600'

SYMBOLS AND LINETYPES LEGEND

- BOUNDARY LINE
- LOT PHASE LINE
- EASEMENT LINE
- SECTION LINE
- HALF-SECTION LINE
- RIGHT OF WAY LINE
- CENTER LINE OF STREET
- LOT LINE
- BUILDING SET BACK
- SIGHT LINE

BLOCK NUMBER #

CURB, GUTTER, CROSSPAN, SIDEWALK & RAMP



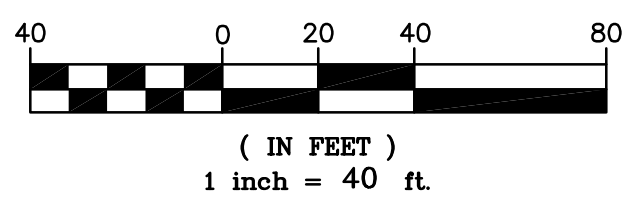
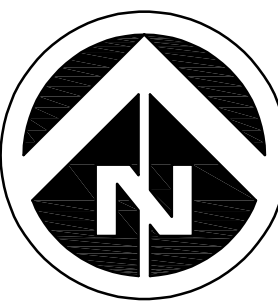
- STREET SIGN
- WATER METER
- FIRE HYDRANT AND VALVE
- EX. FIRE HYDRANT
- WATER VALVE
- STREET LIGHT
- EX. STREET LIGHT
- STORM MANHOLE
- STORM INLET
- FLARED END SECTION
- EX EASEMENT LINE

KEYNOTE

- 1 SIGHT LINES
- 2 STOP SIGN & STREET SIGN
- 3 SPEED LIMIT SIGN
- 4 DEAD END SIGN
- 5 KEEP RIGHT SIGN

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Dewberry
Dewberry Engineers Inc.
8100 East Maplewood Avenue, Suite 150
Greenwood Village, CO 80111
303.368.5601
Contact: Troy Kent, PE
Email: tkent@dewberry.com

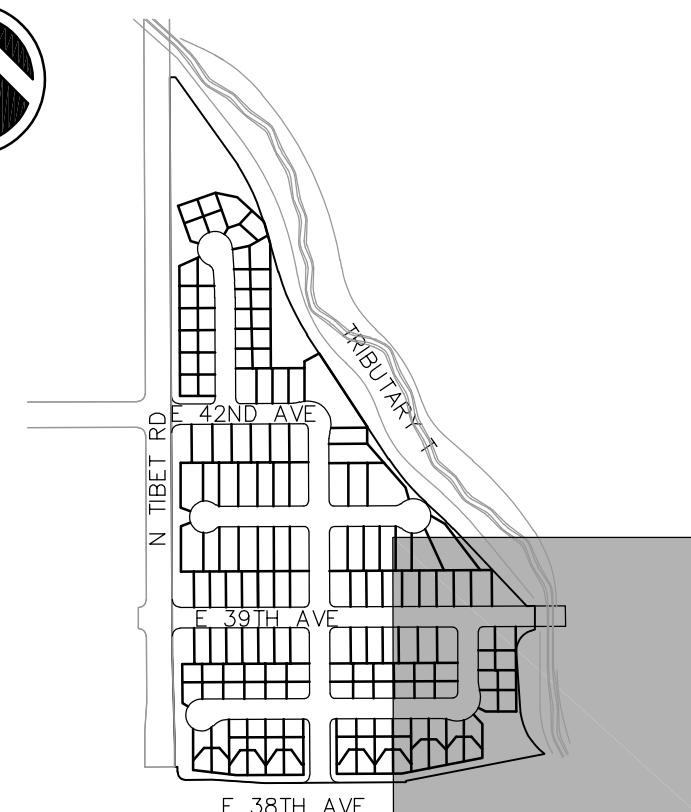
GREEN VALLEY RANCH EAST SITE PLAN #15

OAKWOOD HOMES
4908 TOWER ROAD
DENVER, CO 80249

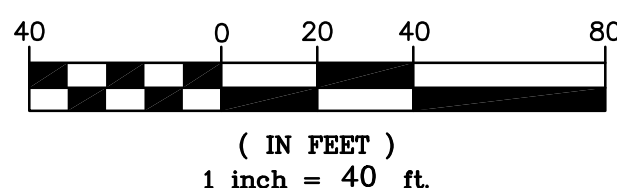
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No.	Date	Description	
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2	05/24/2022	2ND SUBMITTAL	
1	02/28/22	1ST SUBMITTAL	

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NOT FOR
CONSTRUCTION

Project Number: 50144653
Designed By: CEB
Checked By: TDK
Sheet Number: 11



KEY MAP
SCALE: 1"=600'

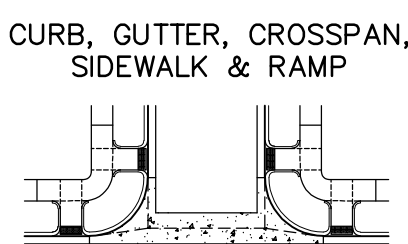


SYMBOLS AND LINETYPES LEGEND

Diagram illustrating the various lines defining a lot and its boundaries:

- BOUNDARY LINE
- LOT PHASE LINE
- EASEMENT LINE
- SECTION LINE
- HALF-SECTION LINE
- RIGHT OF WAY LINE
- CENTER LINE OF STREET
- LOT LINE
- BUILDING SET BACK
- SIGHT LINE

BLOCK NUMBER



STREET SIGN

WATER METER ●
 FIRE HYDRANT AND VALVE ●
 EX. FIRE HYDRANT ●
 WATER VALVE ●
 STREET LIGHT ●
 EX. STREET LIGHT ●
 STORM MANHOLE ●
 STORM INLET ●
 FLARED END SECTION ●
 EX EASEMENT LINE ●

KEYNOTE

- 1 SIGHT LINES
- 2 STOP SIGN & STREET SIGN
- 3 SPEED LIMIT SIGN
- 4 DEAD END SIGN
- 5 KEEP RIGHT SIGN

NOTES:

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GREEN VALLEY RANCH EAST SITE PLAN #15

OAKWOOD HOMES

908 TOWER ROAD
DENVER, CO 80249

Tel: (303)486-8500

Contact: David Carro, RLA

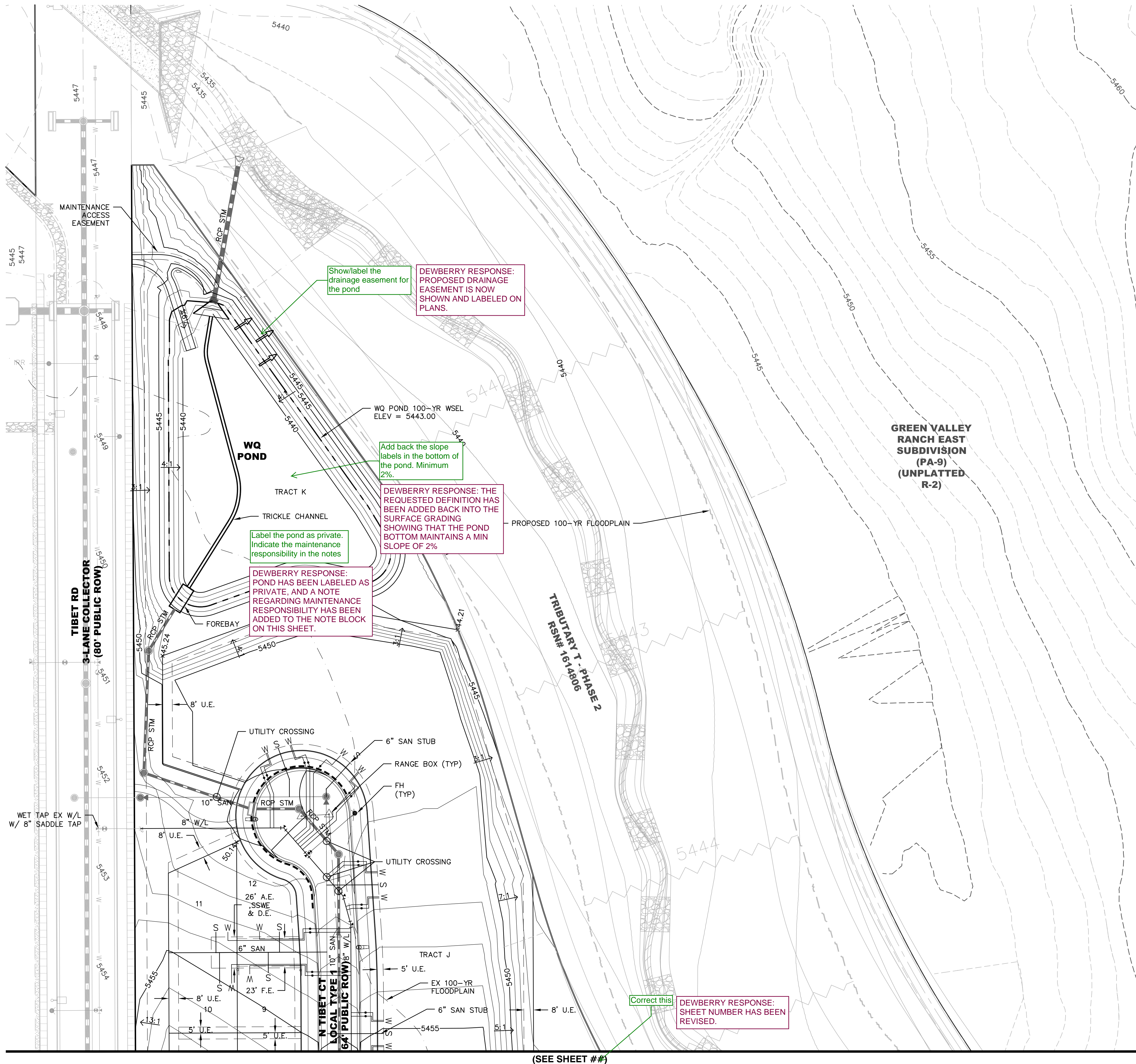
No.	Date	Description
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2	05/24/2022	2ND SUBMITTAL
1	02/28/22	1ST SUBMITTAL

PRELIMINARY
NOT FOR
CONSTRUCTION

Project Number: 50144653	Designed By: CETB	Drawn By: OCB
Checked By: TDK		Sheet Number:

Sheet Number: 12

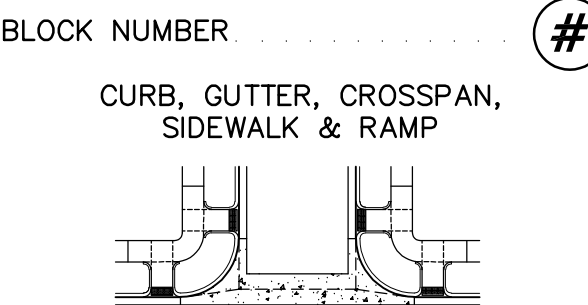
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KEY MAP
SCALE: 1"=600'

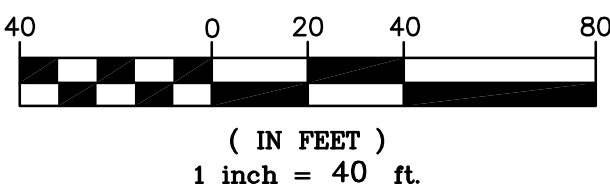
SYMBOLS AND LINETYPES LEGEND

- BOUNDARY LINE
- LOT PHASE LINE
- EASEMENT LINE
- SECTION LINE
- HALF-SECTION LINE
- RIGHT OF WAY LINE
- CENTER LINE OF STREET
- LOT LINE
- BUILDING SET BACK
- SIGHT LINE



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- STREET LIGHTS ARE PRIVATE AND WILL BE OWNED AND MAINTAINED BY THE METRO DISTRICT IN PERPETUITY.
- ALL WATER LINES ARE 8" PVC UNLESS OTHERWISE NOTED. ALL WATER SERVICE LINES ARE PRIVATE.
- ALL WATER SERVICES ARE TO BE SLEEVED UNDER GARAGE APRONS.
- ALL SANITARY SEWER IS 8" PVC UNLESS OTHERWISE NOTED. ALL SANITARY SEWER SERVICE LINES ARE PRIVATE.
- ALL STORM PIPE ARE PUBLIC AND SIZED FOR THE 100-YR STORM EVENT UNLESS OTHERWISE NOTED. FOR ANY RESIDENTIAL LOT IN OR ADJACENT TO A REGULATED FLOOD PLAIN, PROVIDE THE BASE FLOOD ELEVATION (B.F.E.) APPROPRIATE FOR ANY PROPOSED STRUCTURE. LOWEST LOT ELEVATION SHALL BE ONE FOOT ABOVE B.F.E., LOWEST FLOOR INCLUDING BASEMENT OR CRAWL SPACE SHALL BE TWO FOOT ABOVE B.F.E., OR ANY OTHER GRADE REQUIREMENT RELATED TO THE FLOOD PLAIN REGULATION.
- WATER METER RIMS SHALL BE A MINIMUM OF 2' FROM EDGE OF CONCRETE (TYPICAL).



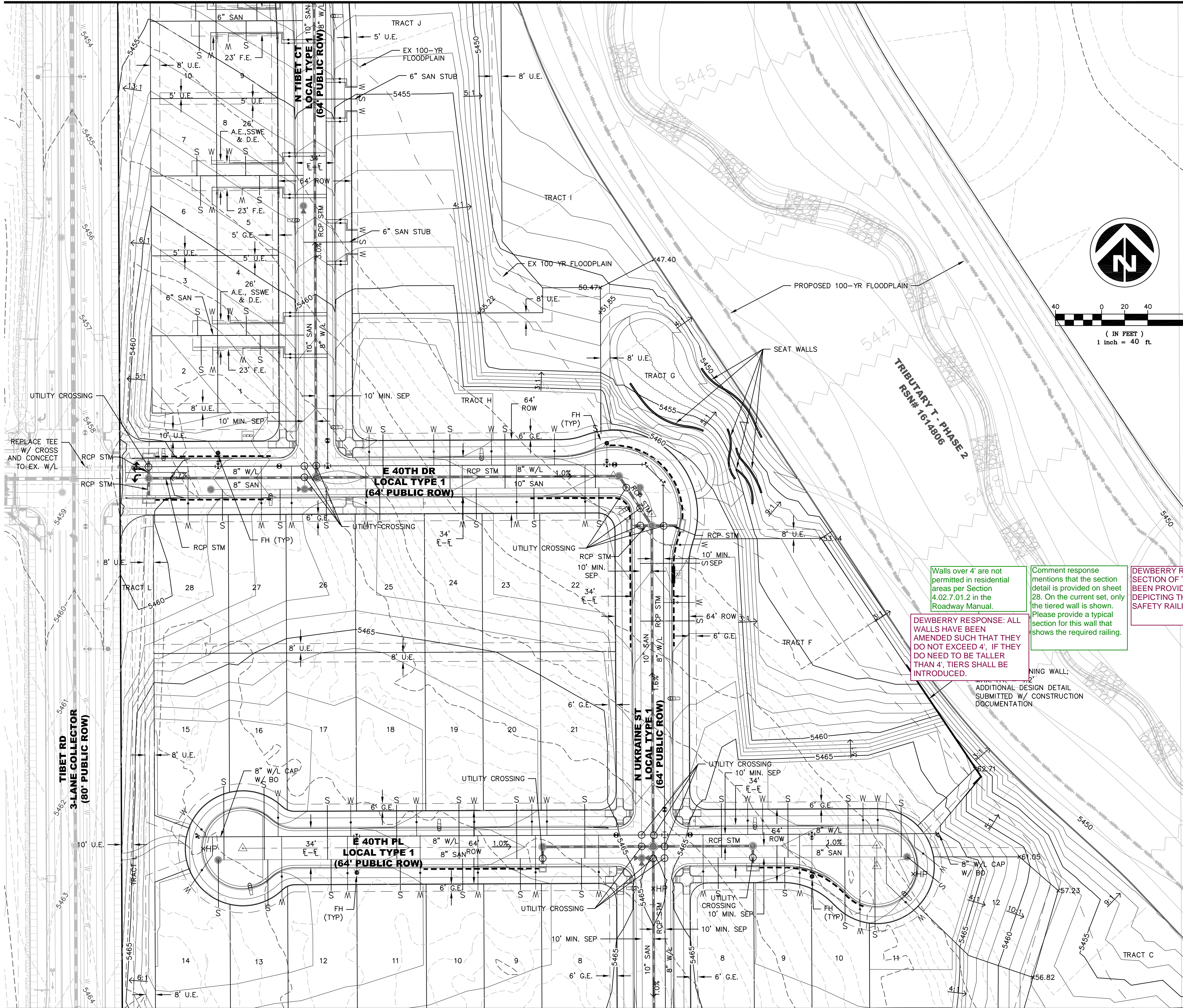
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2	05/24/2022	2ND SUBMITTAL	
1	02/28/22	1ST SUBMITTAL	

PRELIMINARY
NOT FOR
CONSTRUCTION

Project Number: 50144653	Designed By: CEIB	Drawn By: OCB	Checked By: TDK	Sheet Number: 14
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J:\DEWBERRY\OAKWOOD HOMES\GREEN VALLEY RANCH EAST-PA8-PLING 15\PLAN SETS\SP-SP-GRAD-UTIL-50144653.DWG 8/30/2022 4:39 PM NGUYEN, TUYET TRINH (LINDSEY)

(SEE SHEET ##)



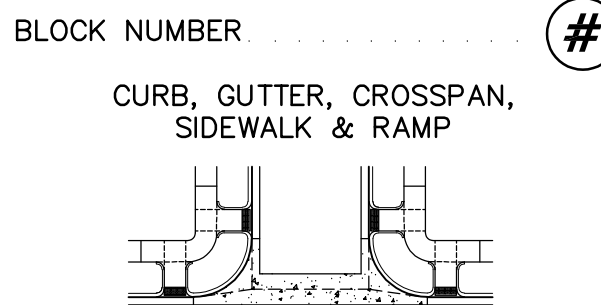
(SEE SHEET ##)



KEY MAP
SCALE: 1"=600'

SYMBOLS AND LINETYPES LEGEND

- BOUNDARY LINE
- LOT PHASE LINE
- EASEMENT LINE
- SECTION LINE
- HALF-SECTION LINE
- RIGHT OF WAY LINE
- CENTER LINE OF STREET
- LOT LINE
- BUILDING SET BACK
- SIGHT LINE



- STREET SIGN
- WATER METER
- FIRE HYDRANT AND VALVE
- EX. FIRE HYDRANT
- WATER VALVE
- STREET LIGHT
- EX. STREET LIGHT
- STORM MANHOLE
- STORM INLET
- FLARED END SECTION
- EX EASEMENT LINE

NOTES:

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- WATER METER RIMS SHALL BE A MINIMUM OF 2' FROM EDGE OF CONCRETE (TYPICAL).

Walls over 4' are not permitted in residential areas per Section 4.02.7.01.2 in the Roadway Manual.

DEWBERRY RESPONSE: ALL WALLS HAVE BEEN AMENDED SUCH THAT THEY DO NOT EXCEED 4'. IF THEY DO NEED TO BE TALLER THAN 4', TIERS SHALL BE INTRODUCED.

Comment response mentions that the section detail is provided on sheet 28. On the current set, only the tiered wall is shown. Please provide a typical section for this wall that shows the required railing.

DEWBERRY RESPONSE: A SECTION OF THIS WALL HAS BEEN PROVIDED ON SHEET 17 DEPICTING THE REQUIRED SAFETY RAILING/FENCE.

ADDITIONAL DESIGN DETAIL SUBMITTED W/ CONSTRUCTION DOCUMENTATION.

Dewberry
Dewberry Engineers Inc.
8100 East Maplewood Avenue, Suite 150
Greenwood Village, CO 80111
Contact: Troy Kent, PE
Email: tkent@dewberry.com

GREEN VALLEY RANCH EAST SITE PLAN #15

OAKWOOD HOMES

4908 TOWER ROAD
DENVER, CO 80249

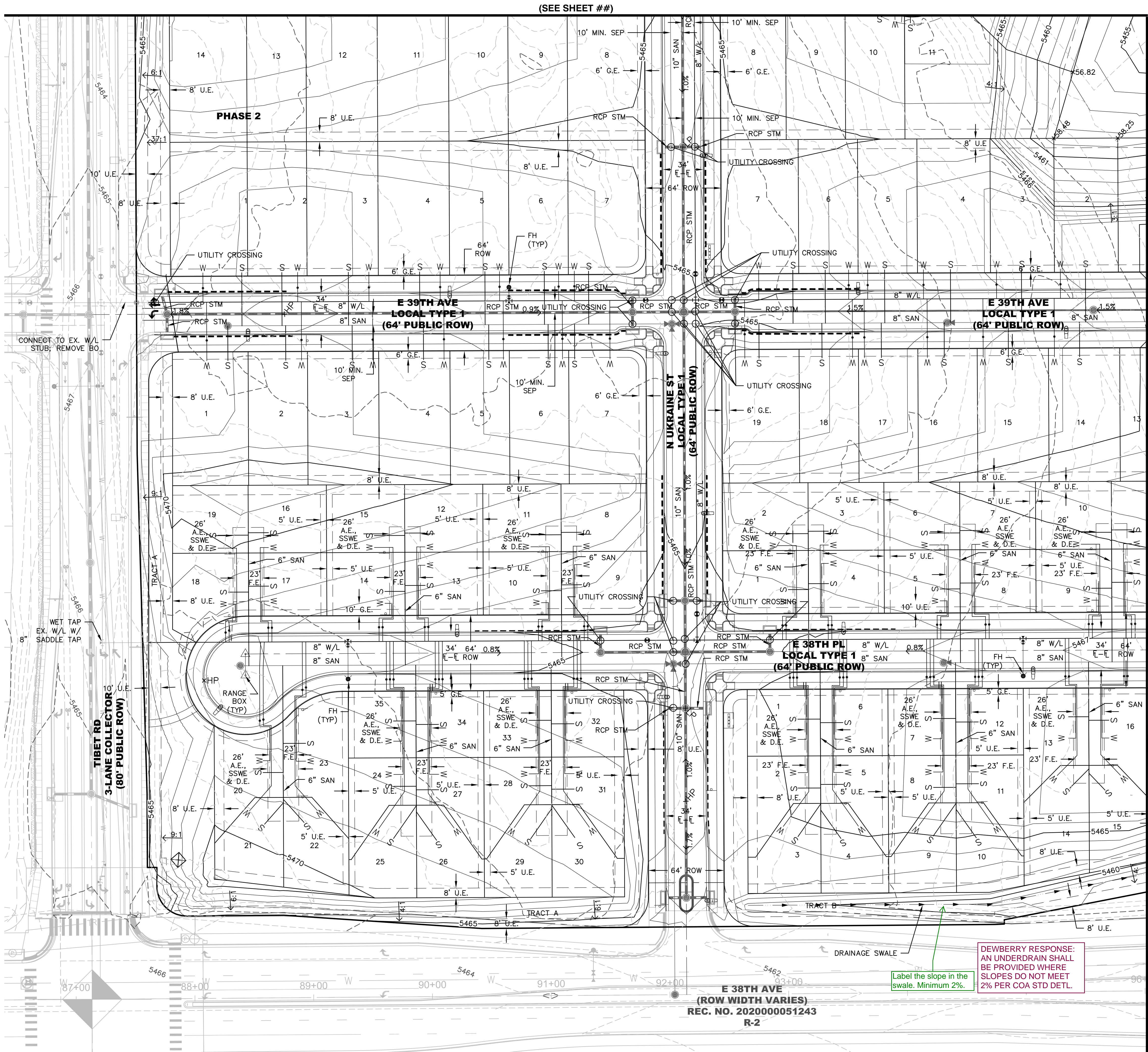
Tel: (303)486-8500

Contact: David Carro, RLA

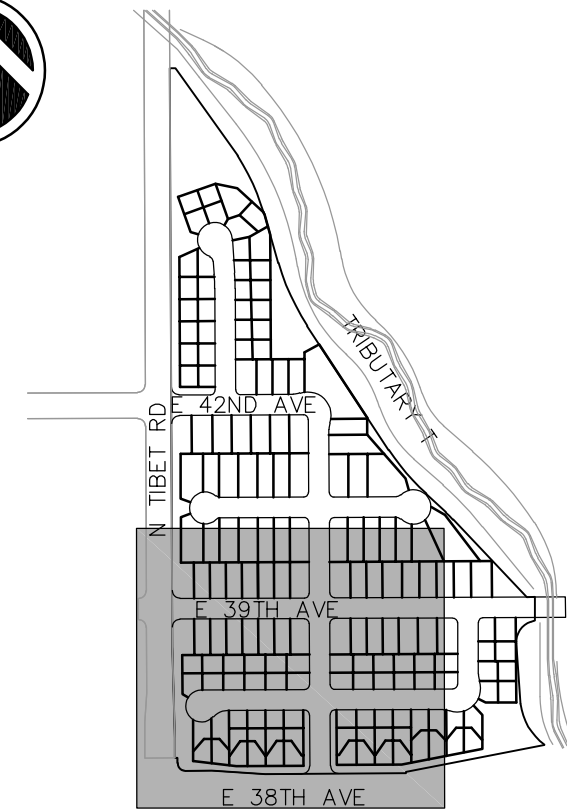
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Project Number: 50144653
Designed By: OCB
Checked By: TDK
Sheet Number: 15

J:\DEWBERRY\OAKWOOD HOMES\GREEN VALLEY RANCH EAST-PA8-FILING 15\PLAN SETS\SP-SP-GRAD-UTIL-50144653.DWG 8/30/2022 4:39 PM NGUYEN, TUYET TRINH (LINDSEY)



(SEE SHEET ##)

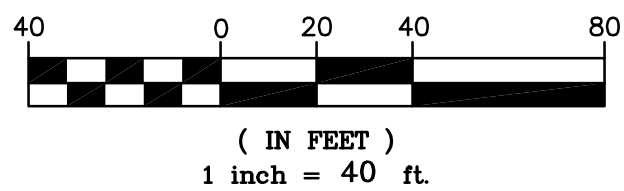
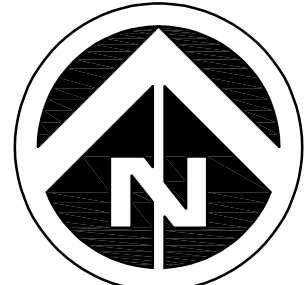


KEY MAP
SCALE: 1"=600'

SYMBOLS AND LINETYPES LEGEND	
BOUNDARY LINE	---
LOT PHASE LINE	---
EASEMENT LINE	---
SECTION LINE	---
HALF-SECTION LINE	---
RIGHT OF WAY LINE	---
CENTER LINE OF STREET	---
LOT LINE	---
BUILDING SET BACK	---
SIGHT LINE	---
BLOCK NUMBER	#
CURB, GUTTER, CROSSSPAN, SIDEWALK & RAMP	---
STREET SIGN	---
WATER METER	---
FIRE HYDRANT AND VALVE	---
EX. FIRE HYDRANT	---
WATER VALVE	---
STREET LIGHT	---
EX. STREET LIGHT	---
STORM MANHOLE	---
STORM INLET	---
FLARED END SECTION	---
EX EASEMENT LINE	---

NOTES:

1. ALL WALKS ARE PUBLIC UNLESS OTHERWISE NOTED.
2. ALL CURB RETURN RADII AT LOCAL TO LOCAL ARE 15'. ALL CURB RETURN RADII AT LOCAL TO COLLECTOR ARE 20'. ALL CURB RETURN AT LOCAL/COLLECTOR TO ARTERIAL INTERSECTIONS ARE 25'.
3. ALL PRIVATE STORM PIPES IN EASEMENTS SHALL BE INCLUDED IN A MASTER LICENSE AGREEMENT.
4. STREET LIGHT LOCATIONS SHOWN ARE CONCEPTUAL AND FINAL STREET LIGHT LOCATIONS WILL BE DETERMINED BY PHOTOMETRIC ANALYSIS SUBMITTED WITH THE STREET LIGHTING PLAN IN THE CIVIL PLAN SUBMITTAL.
5. STREET LIGHTS ARE PRIVATE AND WILL BE OWNED AND MAINTAINED BY THE METRO DISTRICT IN PERPETUITY.
6. ALL WATER LINES ARE 8" PVC UNLESS OTHERWISE NOTED. ALL WATER SERVICE LINES ARE PRIVATE.
7. ALL WATER SERVICES ARE TO BE SLEEVED UNDER GARAGE APRONS.
8. ALL SANITARY SEWER IS 8" PVC UNLESS OTHERWISE NOTED. ALL SANITARY SEWER SERVICE LINES ARE PRIVATE.
9. ALL STORM PIPE ARE PUBLIC AND SIZED FOR THE 100-YR STORMAL EVENT UNLESS OTHERWISE NOTED. FOR ANY RESIDENTIAL LOT IN OR ADJACENT TO A REGULATED FLOOD PLAIN, PROVIDE THE BASE FLOOD ELEVATION (B.F.E.) APPROPRIATE FOR ANY PROPOSED STRUCTURE. LOWEST LOT ELEVATION SHALL BE ONE FOOT ABOVE B.F.E., LOWEST FLOOR INCLUDING BASEMENT OR CRAWL SPACE SHALL BE TWO FOOT ABOVE B.F.E., OR ANY OTHER GRADE REQUIREMENT RELATED TO THE FLOOD PLAIN REGULATION.
11. WATER METER RIMS SHALL BE A MINIMUM OF 2' FROM EDGE OF CONCRETE (TYPICAL).



GREEN VALLEY RANCH EAST SITE PLAN #15

OAKWOOD HOMES

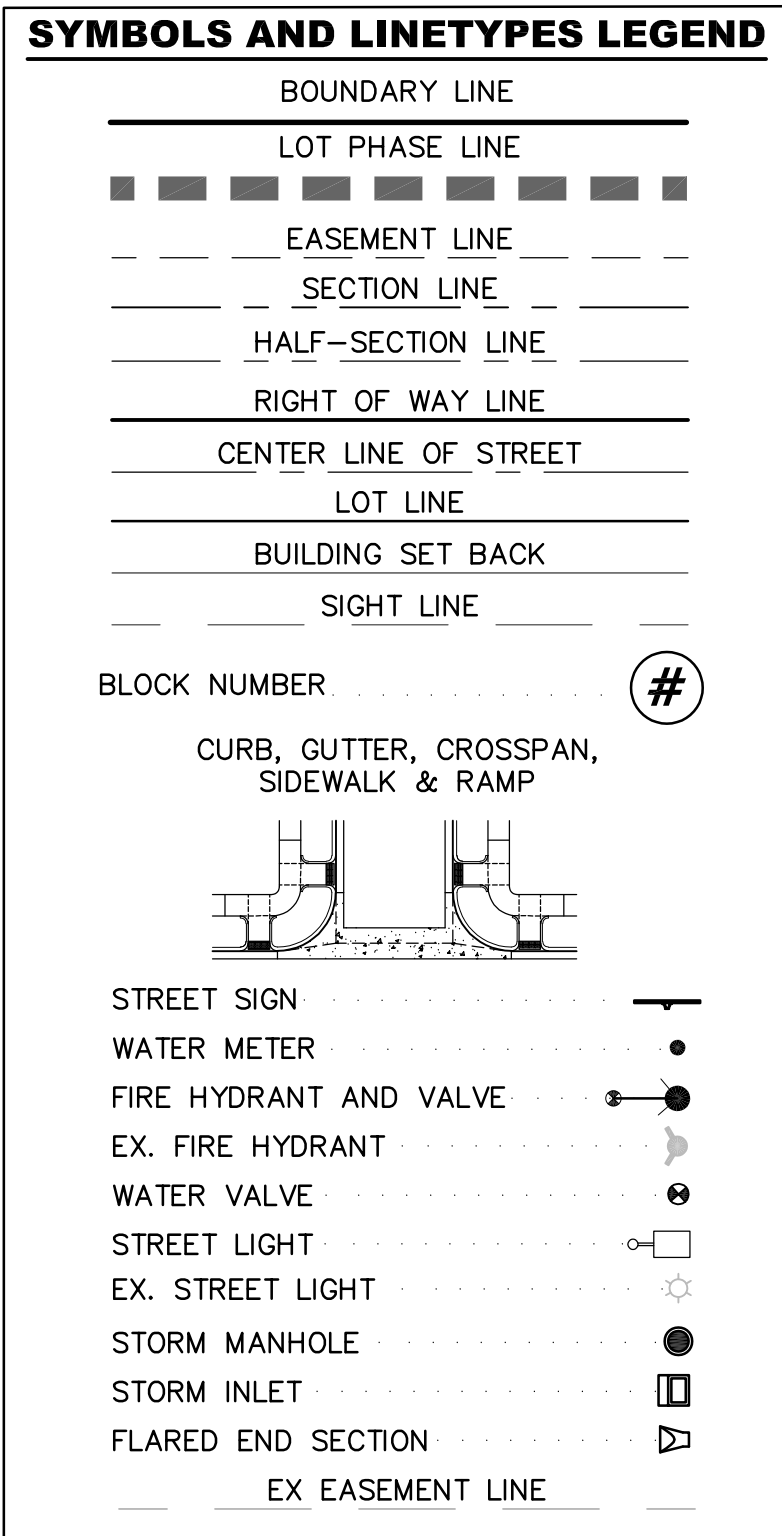
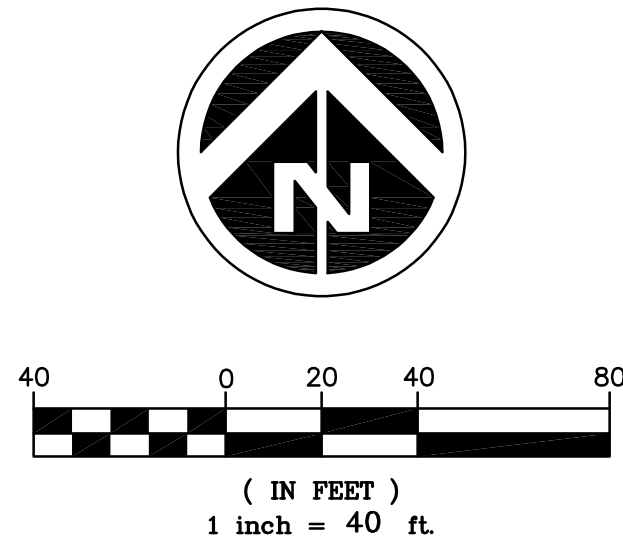
4908 TOWER ROAD
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Tel: (303)486-8500

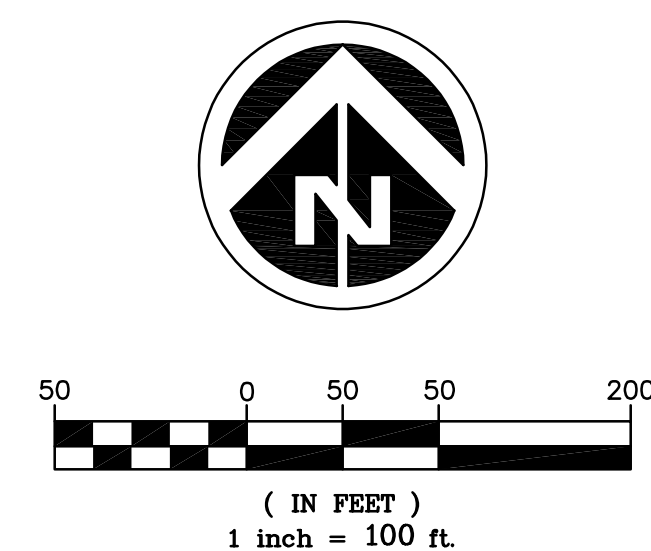
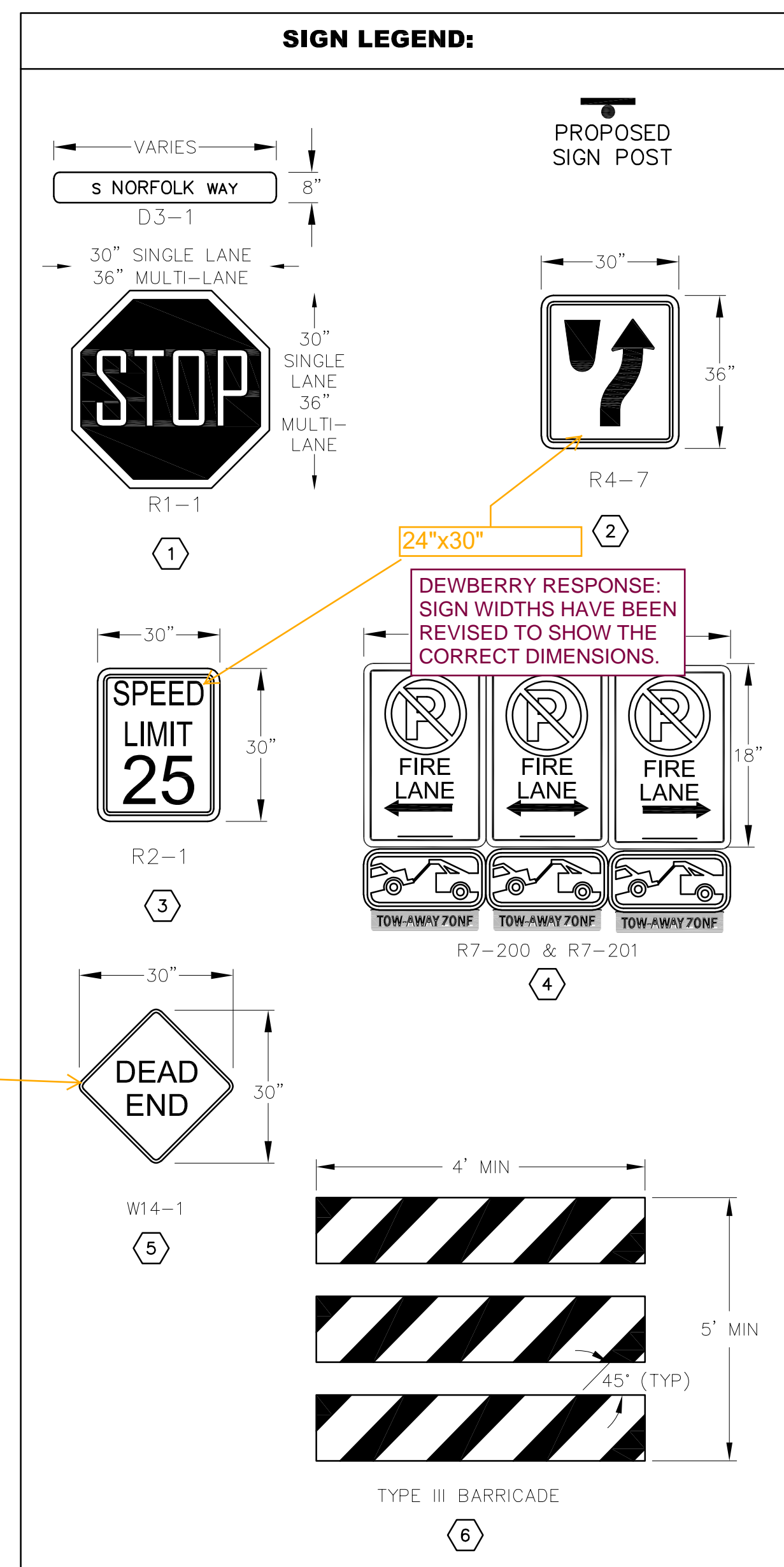
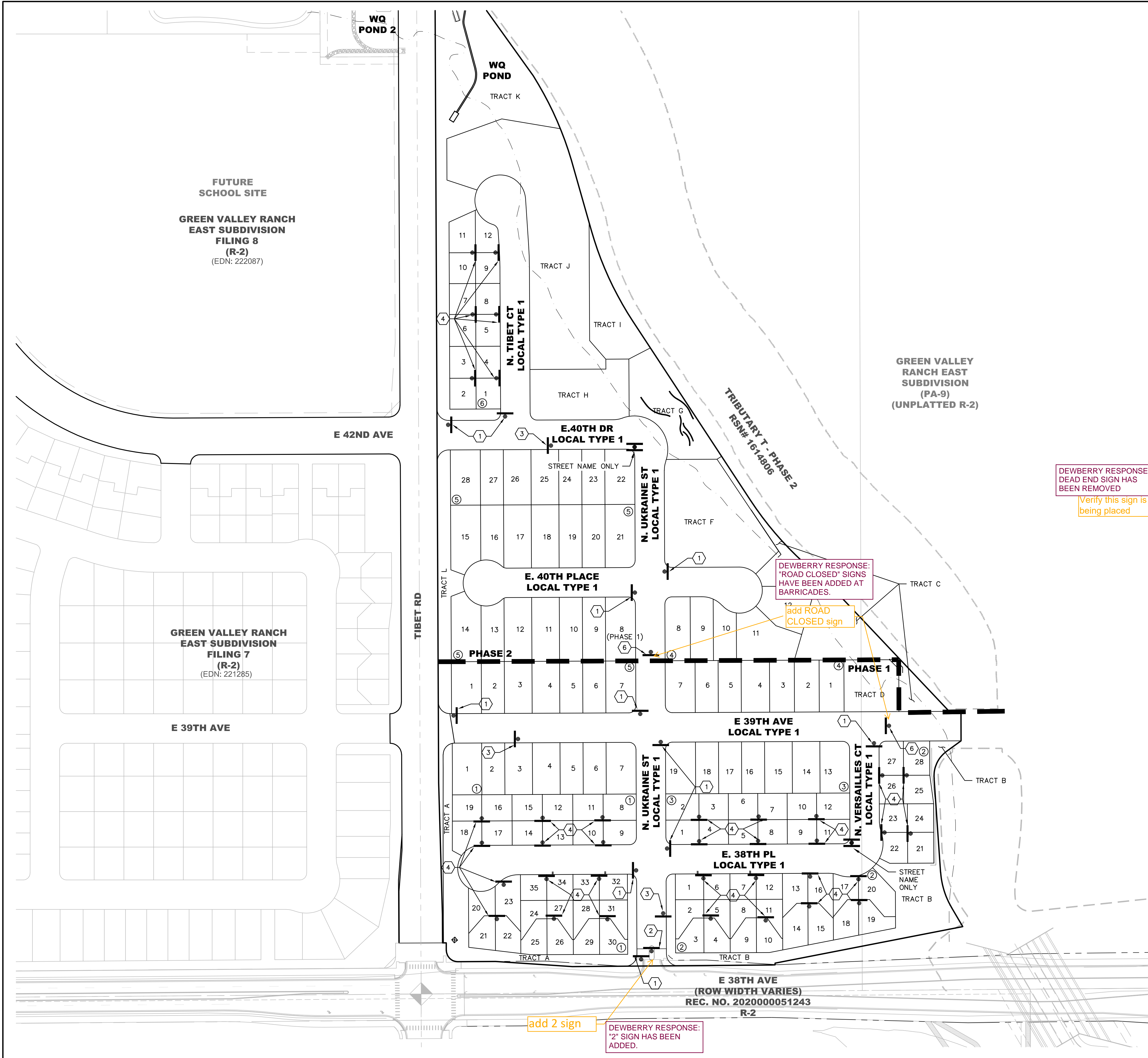
Contact: David Carro, RLA

DOCUMENT AMENDMENTS	
No.	Description
3	08/30/2022 3RD SUBMITTAL
2	05/24/2022 2ND SUBMITTAL
1	02/28/22 1ST SUBMITTAL

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NOT FOR
CONSTRUCTION



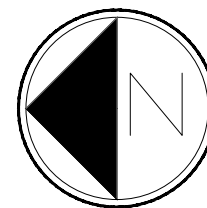
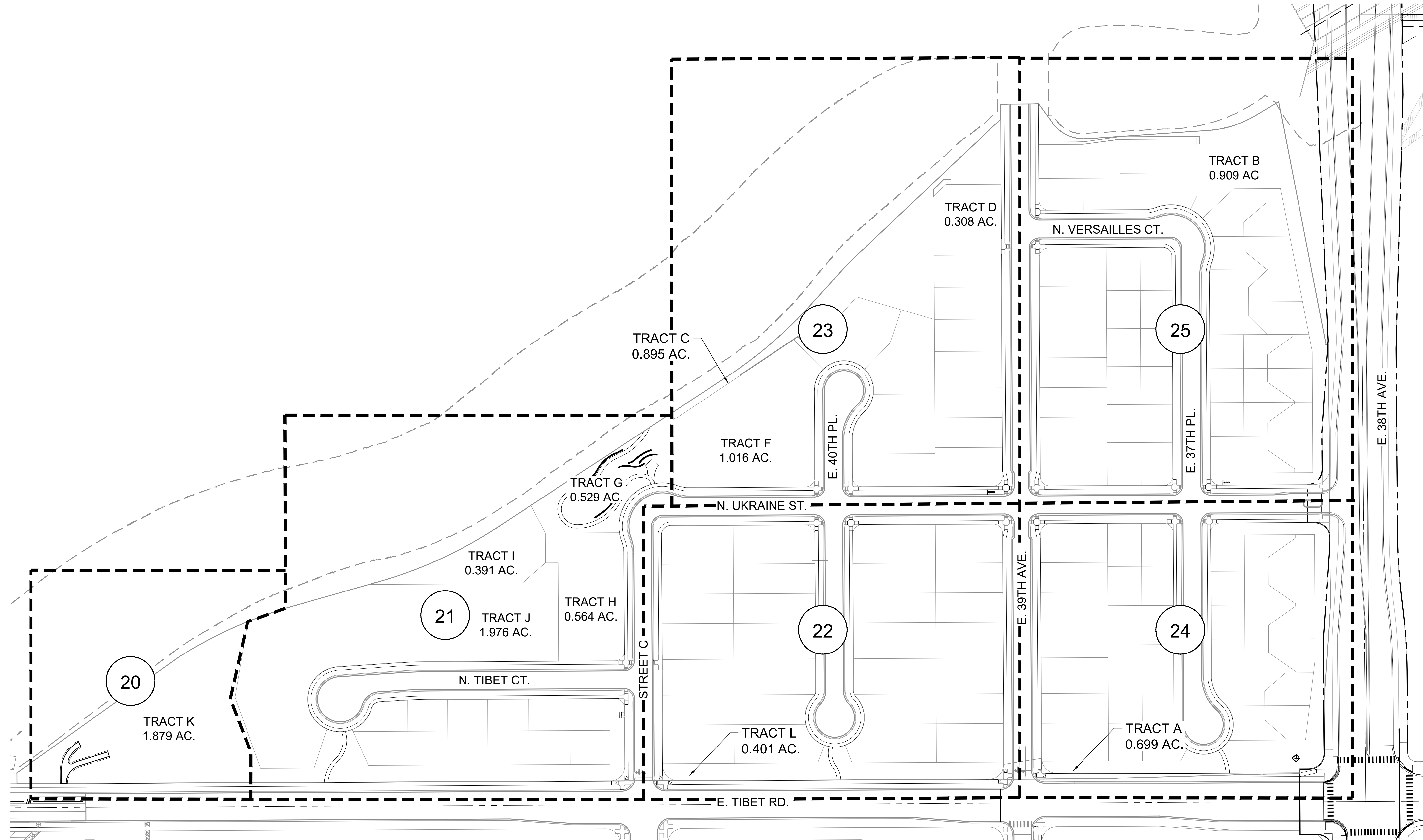
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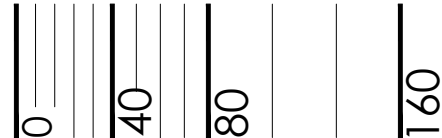
LEGEND

13 SHEET NUMBER

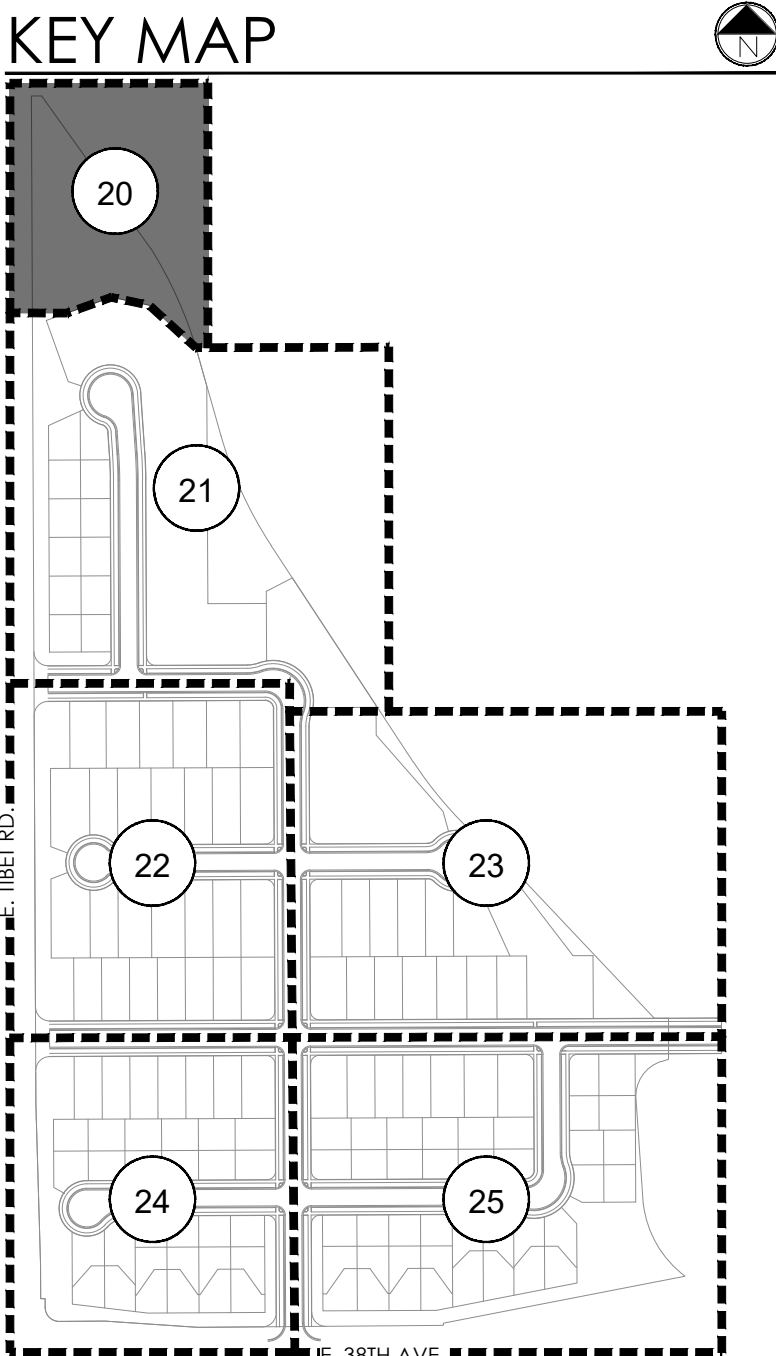
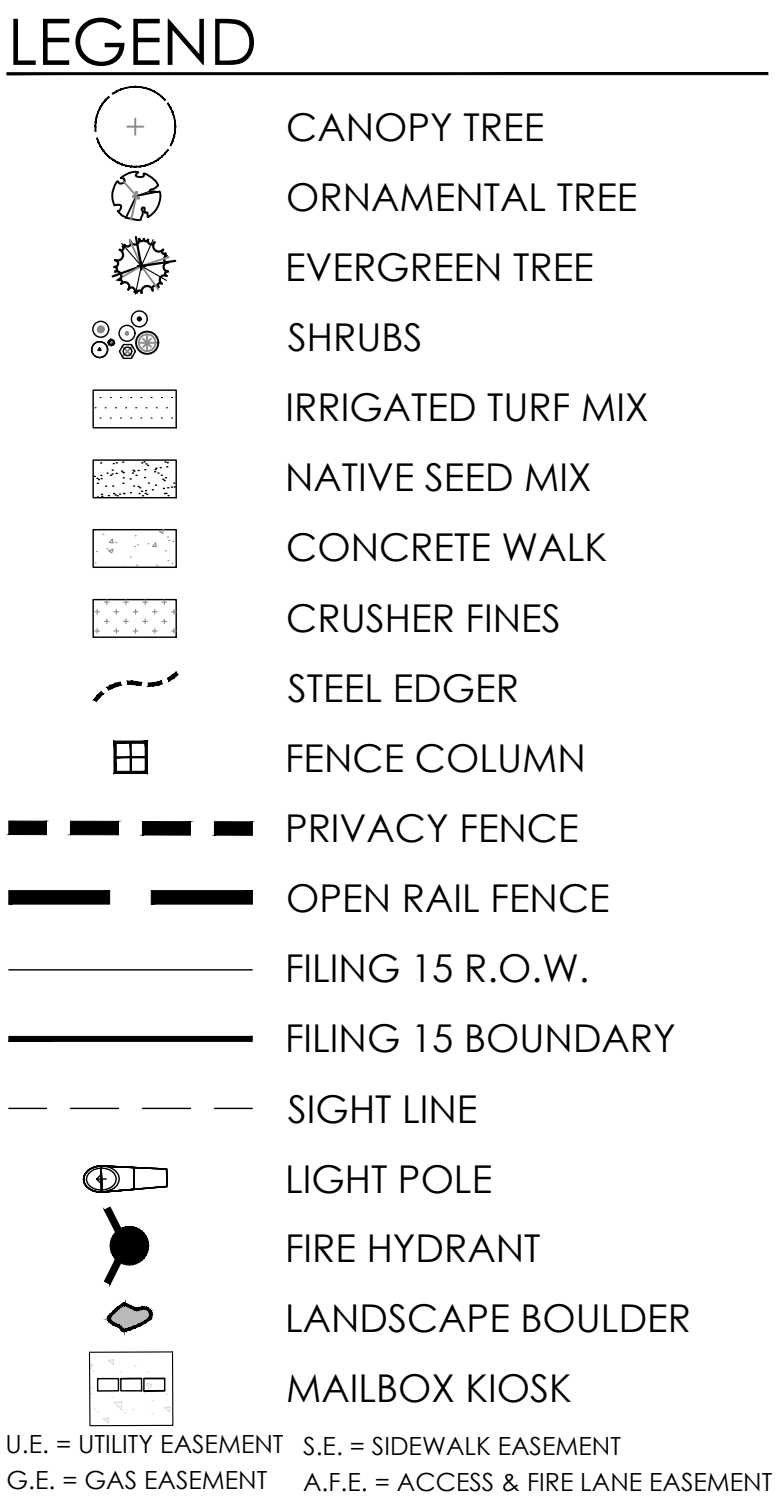
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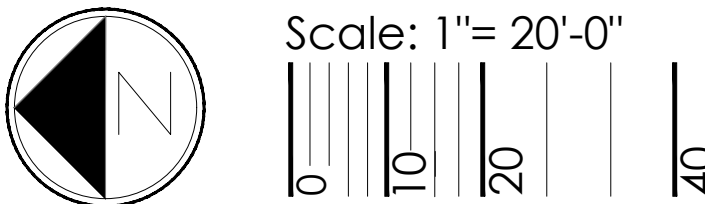
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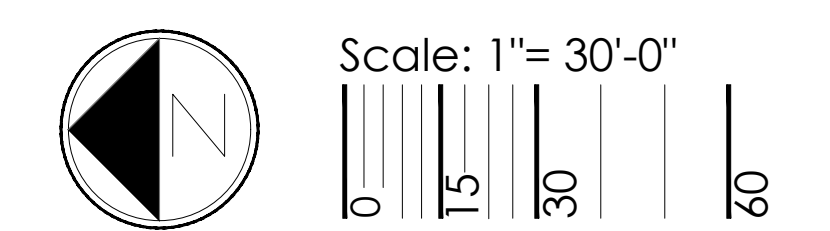


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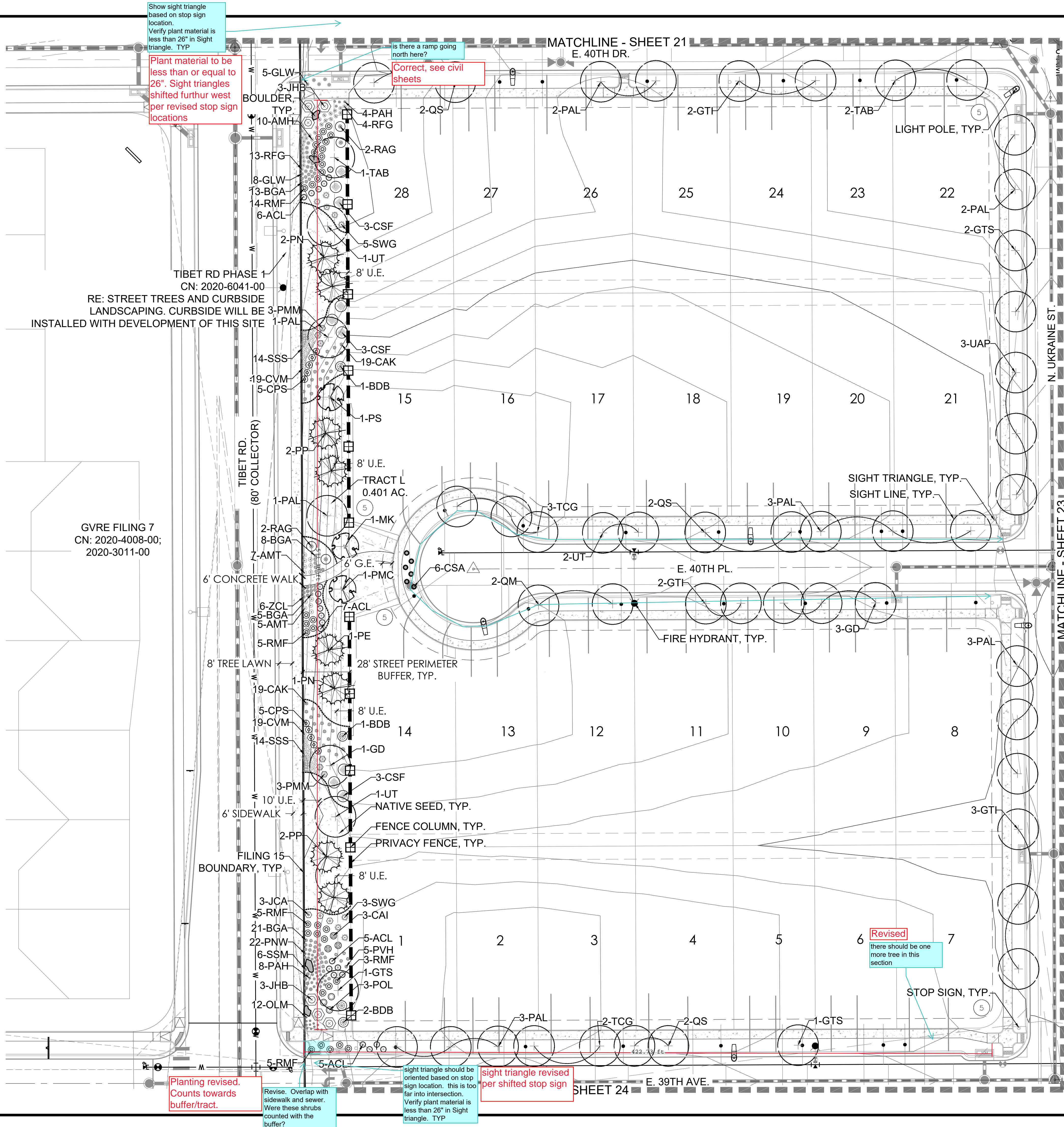
1. REFER TO PLAT FOR ALL EASEMENTS WITHIN LOTS.
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3. ALL PROPOSED LANDSCAPING WITHIN THE SIGHT TRIANGLE SHALL BE IN COMPLIANCE WITH COA ROADWAY SPECIFICATIONS, SECTION 4.04.2.10. AND UDO SECTION 146.4.7.5.VII.
4. LANDSCAPE BUFFERS WILL NOT BE DEFERRED.





NOT FOR CONSTRUCTION

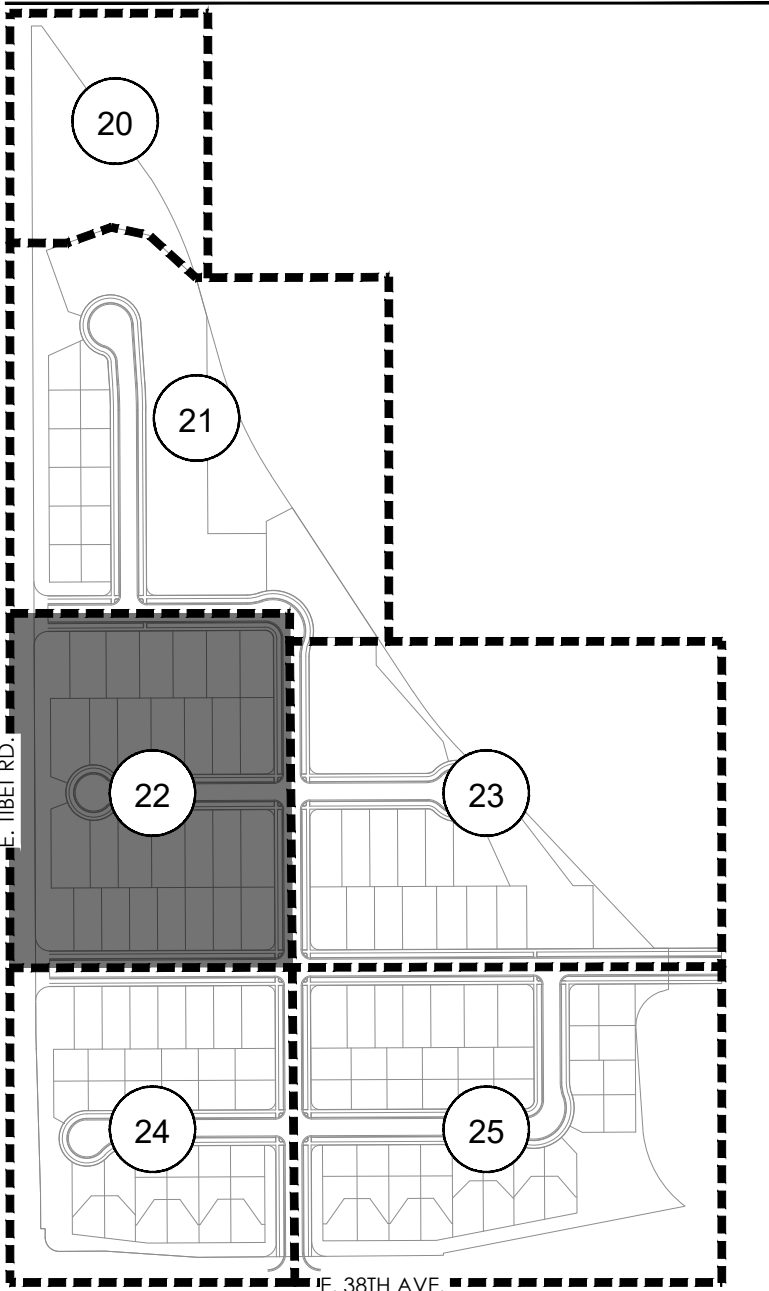
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LEGEND

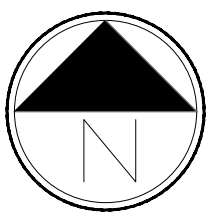
	CANOPY TREE
	ORNAMENTAL TREE
	EVERGREEN TREE
	SHRUBS
	IRRIGATED TURF MIX
	NATIVE SEED MIX
	CONCRETE WALK
	CRUSHER FINES
	STEEL EDGER
	FENCE COLUMN
	PRIVACY FENCE
	OPEN RAIL FENCE
	FILING 15 R.O.W.
	FILING 15 BOUNDARY
	SIGHT LINE
	LIGHT POLE
	FIRE HYDRANT
	LANDSCAPE BOULDER
	MAILBOX KIOSK
U.E. = UTILITY EASEMENT S.E. = SIDEWALK EASEMENT G.E. = GAS EASEMENT A.F.E. = ACCESS & FIRE LANE EASEMENT	

KEY MAP

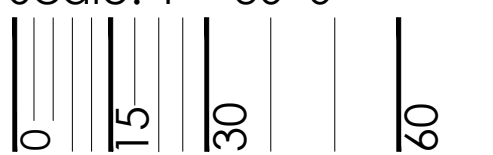


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Scale: 1"= 30'-0"



PROJECT NAME



GREEN VALLEY RANCH EAST FILING 15
AURORA, COLORADO
LANDSCAPE PLANS

SHEET TITLE

LANDSCAPE
PLAN

SHEET NUMBER

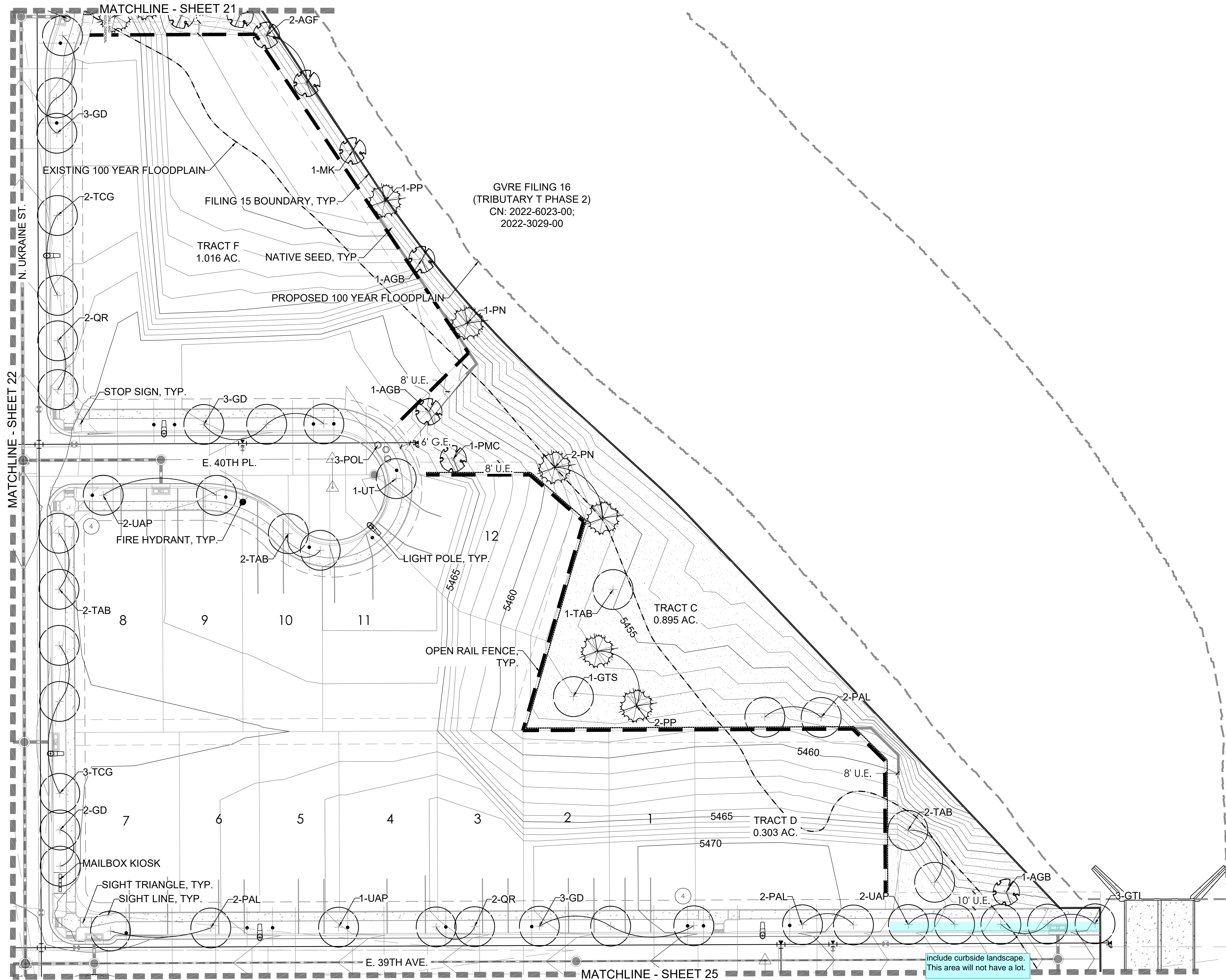
LP.4

SHEET 22 OF 36

August 31, 2022

NOT FOR CONSTRUCTION

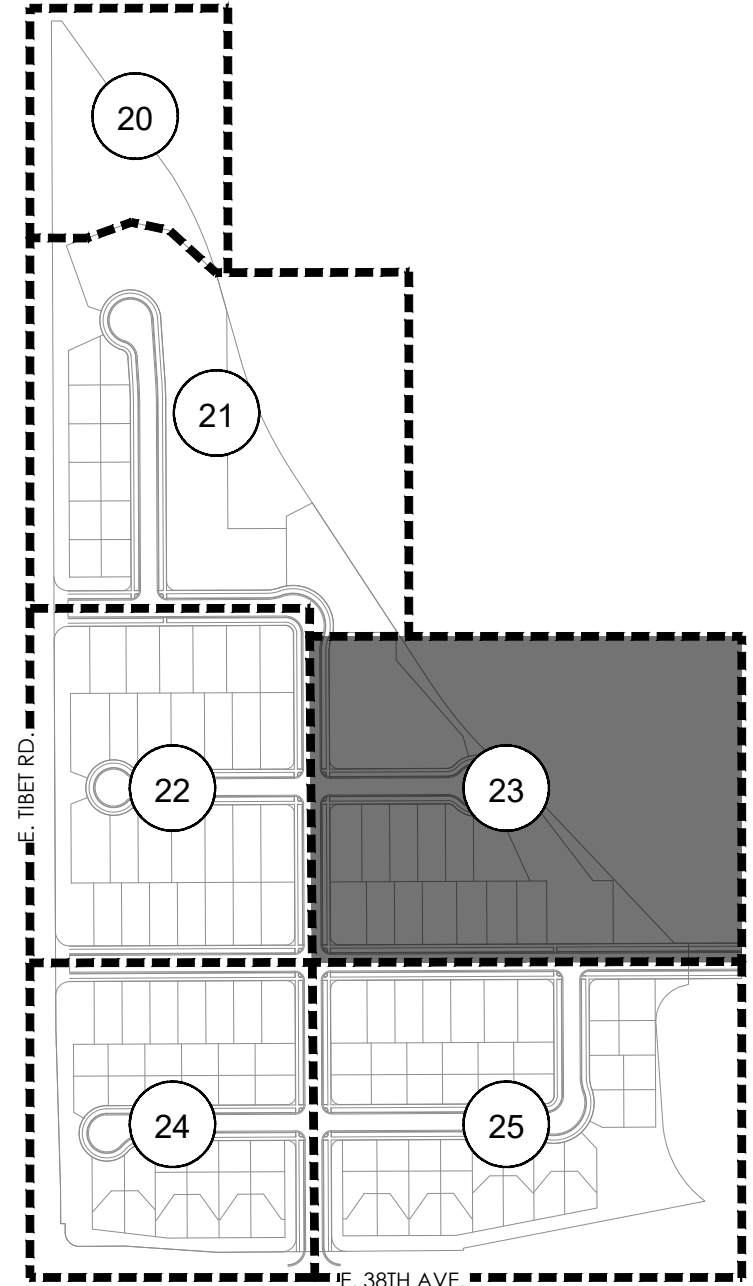
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LEGEND

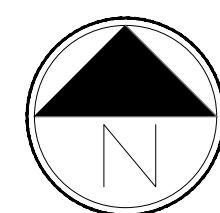
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	ORNAMENTAL TREE
	EVERGREEN TREE
	SHRUBS
	IRRIGATED TURF MIX
	NATIVE SEED MIX
	CONCRETE WALK
	CRUSHER FINES
	STEEL EDGER
	FENCE COLUMN
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U.E. = UTILITY EASEMENT S.E. = SIDEWALK EASEMENT	
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KEY MAP



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PROJECT NAME



GREEN VALLEY RANCH EAST FILING 15
AURORA, COLORADO
LANDSCAPE PLANS

SHEET TITLE

LANDSCAPE
PLAN

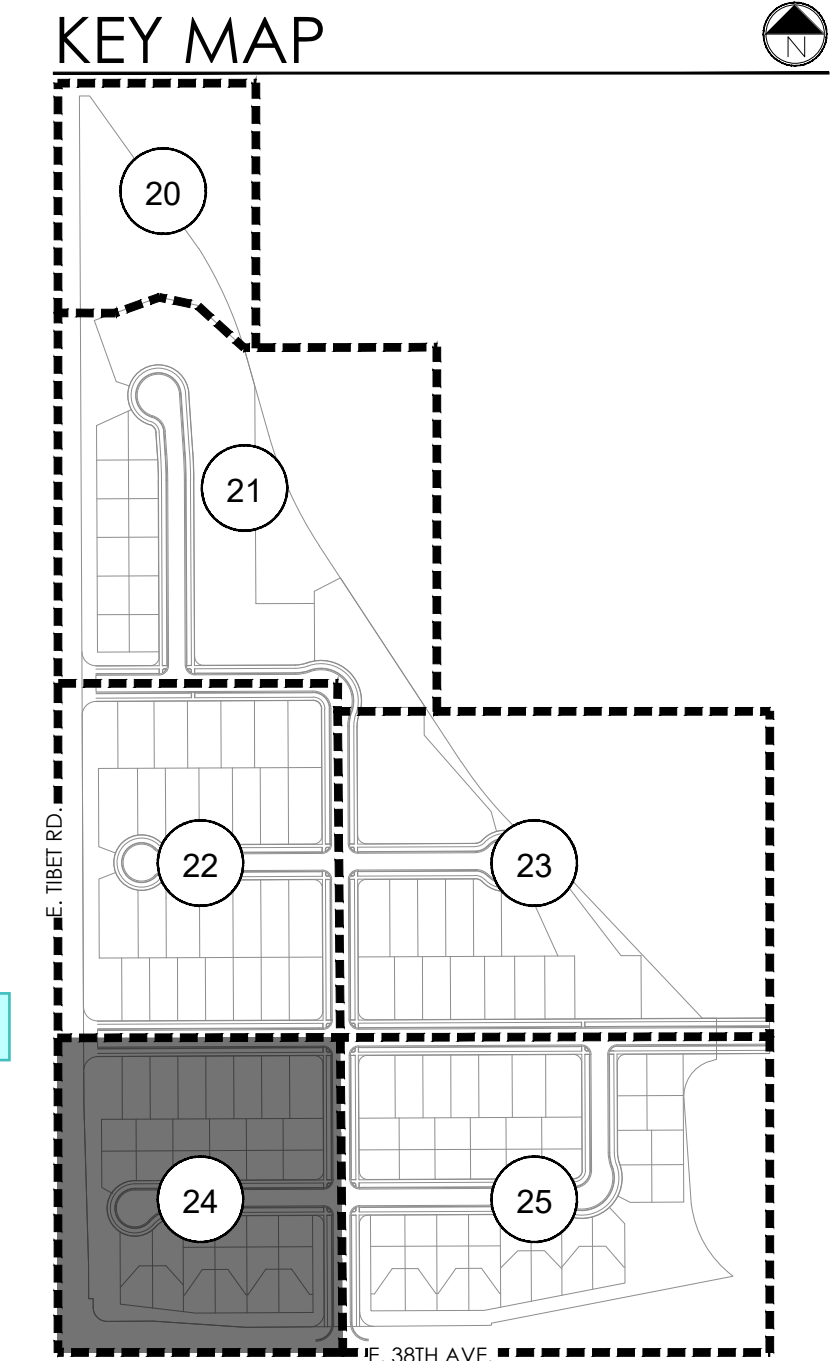
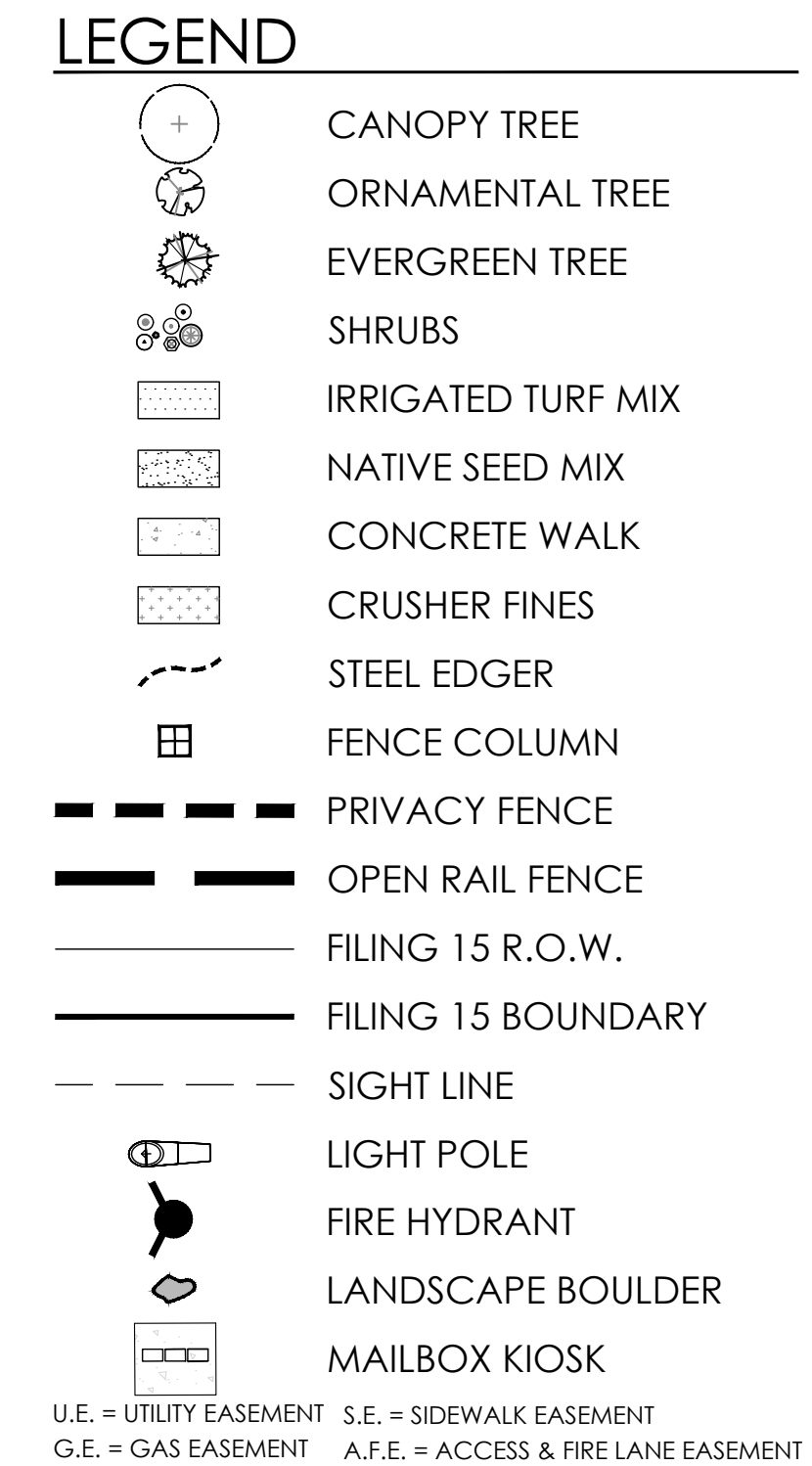
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LP.5

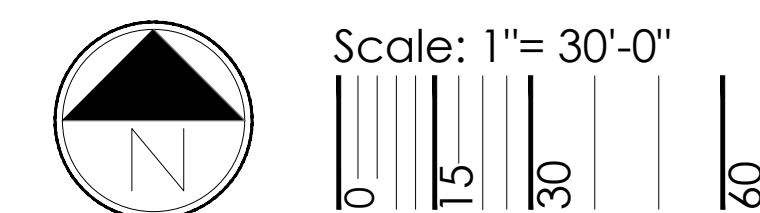
SHEET 23 OF 36

August 31, 2022

NOT FOR CONSTRUCTION



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NOT FOR CONSTRUCTION

GREEN VALLEY RANCH EAST FILING 15
AURORA, COLORADO
LANDSCAPE PLANS

SHEET TITLE

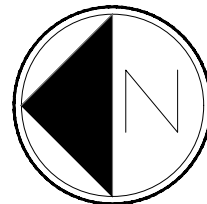
POCKET PARK LANDSCAPE PLAN

SHEET NUMBER

LP.8

SHEET 26 OF 36

August 31, 2022



TRACT	TRACT DESCRIPTION	TOTAL TRACT AREA (SF)	TREES REQUIRED (OPEN SPACE 1/4000 SF)	TREES PROVIDED	SHRUBS REQUIRED (OPEN SPACE 10/4000 SF)	*SHRUBS PROVIDED	
						5 GAL	1 GAL
TRACT A	ST. PERIMETER BUFFER	30,444	8	32	76	163	154
TRACT B	OPEN SPACE/ST. PERIMETER BUFFER	39,615	10	33	99	68	44
TRACT C	OPEN SPACE	39,005	10	19	98	0	0
TRACT G	POCKET PARK	23,048	6	16	58	25	143
TRACT I	OPEN SPACE	17,039	4	13	43	0	0
**TRACT K	OPEN SPACE/ST. PERIMETER BUFFER	51,841	13	38	130	129	118
TRACT L	ST. PERIMETER BUFFER	17,478	5	17	44	96	130
TOTALS		218,418		18	546	481	677
NOTE: (1) 2.5" CAL. TREE = (12) 5 GAL. SHRUBS, (1) 2.0" CAL. TREE = (10) 5 GAL. GRASS							
NOTE: ONLY 1 GAL. GRASSES BEING COUNTED TOWARDS REQUIREMENTS							
NOTE: WHERE THE NUMBER FOR SHRUBS PROVIDED IS LOWER THAN WHAT IS REQUIRED, THE REQUIREMENT IS MET THROUGH THE TREE EQUIVALENT NOTED ABOVE.							
* NUMBER EQUAL TO [TOTAL 5 GAL.] + (TOTAL 1 GAL./3) ← ? what does this mean? is it necessary?							
**EXCLUDES THOSE AREAS WITHIN 100 YR FLOODPLAIN, WETLANDS, AND WET DETENTION PONDS.							

TRACT	TRACT DESCRIPTION	STREET PERIMETER LENGTH (LF)	ED STREET BUFFER WIDTH	PROVIDED STREET BUFFER WIDTH	TREES REQUIRED (PERIMETER BUFFER 1/40 LF)	TREES PROVIDED	SHRUBS REQUIRED (PERIMETER BUFFER 10/40 LF)	SHRUBS PROVIDED (\$ GAL / GAL)*	
		473	20'	20'	12	15	118	5 GAL	1 GAL
TRACT A [E. TIBET RD.]	OPEN SPACE/ST. PERIMETER BUFFER	373	20'	15' to 25'	10	13	93	72	70
TRACT A [E. 38TH. AVE.]	OPEN SPACE/ST. PERIMETER BUFFER	462	20'	16' to 70'	12	21	116	55	48
TRACT B [E. 38TH. AVE.]	OPEN SPACE/ST. PERIMETER BUFFER	620	20'	28'	16	18	155	117	30
TRACT K [E. TIBET RD.]	OPEN SPACE/ST. PERIMETER BUFFER	573	20'	28'	15	18	143	94	93
TRACT L [E. TIBET RD.]	OPEN SPACE/ST. PERIMETER BUFFER							397	85
TOTALS		2,501			65	85	625		506
NOTE: (1) 2.5" CAL. TREE = (12) 5 GAL. SHRUBS. (1) 2.0" CAL. TREE = (10) 5 GAL. SHRUBS. (1) 5 GAL. SHRUB = (3) 1 GAL. GRASS									
NOTE: ONLY 1 GAL. GRASSES BEING COUNTED TOWARDS REQUIREMENTS.									
NOTE: EXCLUDES THOSE AREAS WITHIN 100 YR FLOODPLAIN, WETLANDS, AND WARD'S REQUIREMENTS.									
NOTE: TRACT PERIMETER BUFFER NOT REQUIRED ADJACENT TO OPEN SPACE									
NOTE: WHERE THE NUMBER FOR SHRUBS PROVIDED IS LOWER THAN WHAT IS									
* NUMBER EQUAL TO (TOTAL 5 GAL.) + (TOTAL 1 GAL./3) < ? what does this mean? is it necessary?									

LBS/ACRE GRASSES	BOTANICAL NAME	COMMON NAME
6	BUCHLOE DACTYLOIDES 'SHARP'S'	BUFFALOGRASS, SHARP'S
7	BOUTELOUA CURTINPENDULA 'BUTTE'	SIDEOTS GRAMA, BUTTE*
5	CHONDROSPERM GRACILE 'HACHITA'	BLUE GRAMA, HACHITA*
8	PASCOPIRYUM SMITHII 'ARIBA'	WESTERN WHEATGRASS, ARIBA*
1	SPOROBOLUS AIROIDES	ALKALI SACATON
TOTAL:27		

LBS/ACRE	BOTANICAL NAME	COMMON NAME
GRASSES		
2	BUCHLOE DACTYLOIDES	BUFFALOGRASS
1	CAREX NEBRASCENSIS	NEBRASKA SEDGE*
0.5	JIUNCUS BALTICUS	BALTIC RUSH*
6	PASCOPYRUM SMITHII	WESTERN WHEATGRASS*
6	PANICUM VIRGATUM	SWITCHGRASS*
3	ELYMUS LANCEOLATUS	STREAMBANK WHEATGRASS
2	PUCCINELLIA DISTANS	ALKALIGRASS
2	PUCCINELLIA AIROIDES	NUTTALL ALKALIGRASS
TOTAL 22.5		

TRACT DATA				
TRACT	TRACT DESCRIPTION	TOTAL TRACT AREA (SF)	TOTAL TRACT AREA (A.C.)	OWNERSHIP
TRACT C	OPEN SPACE	39,005	0.895	CLAYTON PROPERTIES GROUP II INC.
TRACT G	POCKET PARK	23,048	0.529	CLAYTON PROPERTIES GROUP II INC.
TRACT I	OPEN SPACE	17,039	0.391	CLAYTON PROPERTIES GROUP II INC.

TREE SPECIES (OR SIMILAR) TO BE INSTALLED INCLUDE:

- AESCULUS X ARNOLDIANA 'AUTUMN SPLENDOR', AUTUMN SPLENDOR HORSE CHESTNUT
- PLATANUS X ACERIFOLIA BLOODGOOD, BLOODGOOD PLANETREE
- CATALPA SPECIOSA, SEEDLESS WESTERN CATALPA
- GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE', SKYLINE HONEYLOCUST

TREE SPECIES (OR SIMILAR) TO BE INSTALLED INCLUDE:
 • GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE', SKYLINE HONEYLOCUST
 • TILIA CORDATA GREENSPIRE, LINDEN, GREENSPIRE
 • ULMUS X TRIUMPH, TRIUMPH ELM

TREE SPECIES (OR SIMILAR) TO BE INSTALLED INCLUDE:

- AMELANCHIER ANIFOLIA, SASKATOON SERVICEBERRY
- MALUS ROYAL RAINDROPS, ROYAL RAINDROPS CRABAPPLE

TREE SPECIES (OR SIMILAR) TO BE INSTALLED INCLUDE:

- CRATAEGUS CRUS-GALLI INERMIS, THORNLESS COCKSPUR HAWTHORN
- MALUS RADIANT, RADIANT CRABAPPLE
- MALUS THUNDERCHILD, THUNDERCHILD CRABAPPLE
- **ALTERNATE THROUGHOUT CORRIDOR

LANDSCAPED AREA	REQUIREMENT	LENGTH	TREES REQ'D	TREES PROVIDED
E. 38TH PL.	1 TREE/40 LF	1,344	34	34
E. 38TH AVE.	1 TREE/40 LF	608	16	16
E. 39TH AVE.	1 TREE/40 LF	1,704	43	46
E. 40TH PL.	1 TREE/40 LF	925	24	24
E. 40TH DR.	1 TREE/40 LF	642	17	17
N. UKRAINE ST.	1 TREE/40 LF	1,756	44	48
N. TIBET CT.	1 TREE/40 LF	1,057	27	29
N. VERSAILLES CT.	1 TREE/40 LF	442	12	12
TOTAL		8,478	217	226

- N. TIBET RD TO E. 48TH AVE : CN: 2021-6018-00

SITE DATA		
SITE DATA	AREA (AC)	%
TOTAL SITE AREA	32.377	100.0%
LOT AREA	19.236	59.4%
HARD SURFACE AREA*	5.922	18.3%
LANDSCAPE AREA	7.219	22.3%

* HARD SURFACE AREA INCLUDES PAVEMENT, CURB, GUTTER, AND SIDEWALK.

The diagram illustrates the landscaping requirements for a Standard/Small Lot. The lot is divided into three main sections: the Rear Yard, the Side Yard, and the Front Yard. The Rear Yard is the largest area, bounded by the property line and the privacy fence. The Side Yard is located to the left of the Rear Yard, and the Front Yard is located in front of the Rear Yard. The diagram shows the placement of the privacy fence, the property line, and the required landscaping areas. The Rear Yard Landscape is indicated by a solid grey fill, the Side Yard Landscape by a cross-hatch pattern, and the Front Yard Landscape by a diagonal line pattern. The diagram also shows the placement of the privacy fence, the property line, and the required landscaping areas.

LEGEND

- Front/Side Yard Landscape
- Rear Yard Landscape
- Curbside Landscape
- Property Line
- Privacy Fence

NOTE:

- SEE WATER WISE LANDSCAPE REQUIREMENT 32-36
- FENCE SHALL BE LOCATED A MINIMUM OF 18" BEHIND THE SIDEWALK.

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	WATER USE ¹
DECIDUOUS SHRUB TREES						
38	GD	GYMNOCLADUS DIOICUS 'ESPRESSO'	KENTUCKY COFFEE TREE, SEEDLESS	2.5' CAL	B&B	L-M
22	GTH	GLEDITSIA TRIACANTHOS INERMIS 'IMPERIAL'	HONEYLOCUST, IMPERIAL	2.5' CAL	B&B	L-M
20	GTS	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE'	HONEYLOCUST, SKYLINE	2.5' CAL	B&B	L-M
42	PAL	PLATANUS XACERIFOLIA 'BLOODGOOD'	PLANE TREE, BLOODGOOD	2.5' CAL	B&B	M
21	QM	QUERUS MACROCARPA	OAK, BUR	2.5' CAL	B&B	L-M
16	QR	QUERUS ROBUR	OAK, ENGLISH	2.5' CAL	B&B	L-M
22	QS	QUERUS BICOLOR	OAK, SWAMP WHITE	2.5' CAL	B&B	L-M
23	TAB	TILIA AMERICANA 'BOULEVARD'	LINDEN, BOULEVARD	2.5' CAL	B&B	M
30	TCG	TILIA CORDATA 'GREENSPIRE'	LINDEN, GREENSPIRE	2.5' CAL	B&B	M
20	UAP	ULMUS AMERICANA 'PRINCETON'	ELM, PRINCETON AMERICAN	2.5' CAL	B&B	L-M
28	UT	ULMUS X TRIUMPH	ELM, TRIUMPH	2.5' CAL	B&B	L-M
ORNAMENTAL TREES						
13	AGB	ACER GRANDIDENTATUM	MAPLE, BIGTOOTH	2.0' CAL	B&B	L-M
19	AGF	ACER GINNALA	MAPLE, AMUR	2.0' CAL	B&B	L-M
3	OCH	CRATAEGUS CRUS-GALLI INERMIS	HAWTHORN, THORNLESS COCKSPUR	6-8' MULTI-STEM	B&B	L-M
3	WK	MALUS KELSEY	CRABAPPLE, KELSEY	6-8' MULTI-STEM	B&B	L-M
3	MS	MALLUS 'SPRING SNOW'	CRABAPPLE, SPRING SNOW	2.0' CAL	B&B	L-M
1	PCC	PYRUS CALLERYANA CHANTICLEER	PEAR, CHANTICLEER	2.0' CAL	B&B	L-M
4	PS	PRUNUS SARGENTII	CHERRY, SARGENT	2.0' CAL	B&B	L-M
5	PMC	PRUNUS MAACKII	CHOKECHERRY, AMUR	2.0' CAL	B&B	L-M
EVERGREEN TREES						
5	PAP	PINUS ARISTATA	PINE, BRISTLECOONE	6' HT.	B&B	L-M
9	PE	PINUS EDULIS	PINE, PINON	6' HT.	B&B	L-M
23	PN	PINUS NIGRA	PINE, AUSTRIAN	6' HT.	B&B	M
18	PP	PINUS PONDEROSA	PINE, PONDEROSA	6' HT.	B&B	L-M
EVERGREEN SHRUBS						
35	JCA	JUNIPERUS CHINENSIS 'ARMSTONGII'	JUNIPER, ARMSTONG	#5	CONT.	L
12	JHB	JUNIPERUS HORIZONTALIS 'BAR HARBOUR'	JUNIPER, BAR HARBOUR	#5	CONT.	L
24	JSM	JUNIPERUS SCOPOLORIUM 'MOONGLOW'	JUNIPER, MOONGLOW	#5	CONT.	L
6	PAB	PICEA ABIES 'NIDIFORMIS'	SPRUCE, BIRDS NEST	#6	CONT.	L
18	PMM	PINUS MUGO MOPS	MUGO MOPS PINE	#5	CONT.	L
DECIDUOUS SHRUBS						
30	ACL	AMPORPHA CANESCENS	LEADPLANT	#5	CONT.	L
12	BDB	Buddleja DAVIDI 'BLACK NIGHT'	BUTTERFLY BUSH, PURPLE	#5	CONT.	L
3	BTB	BERBERIS 'THUNBERGII' BURGUNDY JAPANESE	BERBERIS, BURGUNDY JAPANESE	#5	CONT.	L
23	CAI	COERUS ALBA 'IVORY HALO'	DOGWOOD, IVORY HALO	#5	CONT.	L
23	CGA	CORYLUS COCCYNGRIA 'WINECRAFT BLACK'	COKE TREE, WINECRAFT CAROUSEL	#5	CONT.	L
49	CPS	CYTISUS PURGANS SPANISH GOLD	SPANISH GOLD BROOM	#5	CONT.	L
87	CSA	CORUS SERICEA 'ARTIC FIRE'	DOGWOOD, ARTIC FIRE	#5	CONT.	L
21	CSF	CORUS SERICEA 'FLAVIRAMEA'	DOGWOOD, YELLOWTWIG	#5	CONT.	L
7	PAR	PEROVSKIA ATRIPICIFOLIA	SAGE, RUSSIAN	#5	CONT.	L
2	PCP	PRUNUS X OSTENS	PLUM, PURPLE LEAF	#5	CONT.	L-M
30	PLC	PHYLLOCLADUS LEWISII 'CHEYENNE'	MCKOKRANGE, CHEYENNE	#5	CONT.	L
3	POL	PHYLOCARPUS OPULIFOLIS 'LITTLE DEVIL'	NIKEBAR, LITTLE DEVIL	#5	CONT.	L
4	RAG	RHUS AROMATICA 'GRO-LOW'	SUMAC, DVNAR FRAGRANT	#5	CONT.	L
75	RKO	ROSA 'KNOCK OUT'	ROSE, KNOCK OUT	#5	CONT.	L-M
6	RKR	ROSA 'DOUBLE KNOCK OUT'	ROSE, DOUBLE KNOCK OUT	#5	CONT.	L-M
6	RKY	ROSA 'SUNNY KNOCK OUT'	ROSE, SUNNY KNOCK OUT	#5	CONT.	L
165	RMF	ROSA MEIDLAND FIRE	ROSE, FIRE MEIDLAND	#5	CONT.	L-M
PERENNIALS						
10	AMH	ACHILLEA MILLEFOLIUM 'HEID'	YARROW, COMMON RED	#1	CONT.	L
12	AMT	ACHILLEA MILLEFOLIUM 'TERRA COTTA'	YARROW, TERRA COTTA	#1	CONT.	L
10	ARS	AGASTACHE RUPESTRIS	HYSSOP, SUNSET	#1	CONT.	L
3	BLC	BERLANDIERA LYRATA	CHOCOLATE FLOWER	#1	CONT.	L
6	CRR	CENTRANTHUS RUBER	RED VALERIAN	#1	CONT.	L
46	CVM	COROPHUS VERTICILLATA 'MOONBEAM'	MOONBEAM COREOPSIS	#1	CONT.	L
42						

1. THE DEVELOPER, HIS SUCCESSORS AND ASSIGNS, SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REPLACEMENT FOR ALL LANDSCAPING MATERIALS SHOWN OR INDICATED ON THE APPROVED SITE PLAN OR LANDSCAPE PLAN ON FILE IN THE PLANNING DEPARTMENT. ALL LANDSCAPING SHALL BE INSTALLED AS DELINEATED ON THE PLAN, PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
2. ALL LANDSCAPE AREAS AND PLANT MATERIALS, EXCEPT FOR NON-IRRIGATED NATIVE, RESTORATIVE, AND DRYLAND GRASS AREAS THAT COMPLY WITH REQUIREMENTS FOUND IN SEC. 146-4.7.3.C MUST BE WATERED BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. IRRIGATION SYSTEM DESIGN, INSTALLATION, OPERATION, AND MAINTENANCE SHALL CONFORM TO REQUIREMENTS FOUND IN THE CITY OF AURORA IRRIGATION ORDINANCE.
3. ALL UTILITY EASEMENTS SHALL REMAIN UNOBSTRUCTED AND FULLY ACCESSIBLE ALONG THEIR ENTIRE LENGTH FOR THE MAINTENANCE EQUIPMENT ENTRY.
4. ALL LANDSCAPED AREAS SHALL RECEIVE SOIL PREPARATION, SODDED AREAS AND LANDSCAPE BEDS SHALL RECEIVE 4 CUBIC YARDS OF COMPOST PER 1,000 S.F. MINIMUM. SEEDED AREAS SHALL RECEIVE 2 CUBIC YARDS OF COMPOST PER 1,000 S.F. MINIMUM. COMPOST SHALL BE CLASS 1.
5. SHRUB BEDS SHALL CONTAIN 1 ½" - 3" WASHED ROUNDED COLORADO RIVER ROCK; FROM A LOCAL SOURCE.
6. TREES PLANTED IN SEED AND SOD AREAS SHALL CONTAIN DOUBLE SHREDDED LONG CEDAR MULCH.
7. ALL ADA ACCESSIBLE WALKS SHALL BE STANDARD GRAY CONCRETE W/ MEDIUM BROOM FINISH. A FEW MINOR NON ADA TRAILS SHALL BE CRUSHER FINES. PEDESTRIAN NODES SHALL BE STANDARD GRAY CONCRETE W/MEDIUM BROOM FINISH.
8. LANDSCAPE MATERIAL SHALL NOT BE PLACED OR KEPT NEAR FIRE HYDRANTS IN A MANNER THAT WOULD PREVENT SUCH EQUIPMENT FROM BEING IMMEDIATELY DISCERNIBLE. A 5-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS. LANDSCAPING MATERIAL SHOWN WITHIN THE SITE PLAN CANNOT ENCROACH INTO ROADWAYS THAT ARE DEDICATED (OR DESIGNATED) AS FIRE LANE EASEMENTS (OR CORRIDORS).
9. ALL PROPOSED LANDSCAPING WITHIN THE SIGHT TRIANGLE SHALL BE IN COMPLIANCE WITH COA ROADWAY SPECIFICATIONS. SECTION 4.04.2.10 AND UDO SECTION 146.4.7.5.VII.
10. LIGHTING WILL INCLUDE A MIXTURE OF STREET POLE LIGHTING, BOLLARD LIGHTING, AND ACCENT LIGHTING FOR ENTRY FEATURES, LANDSCAPE, AND OTHER IMPORTANT ELEMENTS. SIDEWALKS, INTERNAL PEDESTRIAN PATHS, AND BICYCLE PATHS SHALL BE LIT WITH BOLLARD SECURITY LIGHTING AS APPROPRIATE. ON-SITE STREETS AND PARKING AREAS SHALL BE LIT WITH FULL CUTOFF TYPE FIXTURES NO MORE THAN 25 FEET TALL. FIXTURES SHOULD BE OF THE DOWNCAST TYPE.

SHRUB SPECIES (OR SIMILAR) TO BE INSTALLED INCLUDE:

- ACHILLEA 'MOONSHINE', MOONSHINE YARROW
- ECHINACEA PURPUREA, PURPLE CONEFLOWER
- HEMEROCALLIS 'STELLA DE ORO', DWARF GOLD DAYLILY
- LEUCANTHEMUM x SUPERBUM 'BECKY', SHASTA DAISY
- RUDBECKIA FULGIDA 'GOLDSTURM', BLACK-EYED SUSAN
- SALVIA MEMOROSA 'MAY NIGHT', MAY NIGHT PURPLE SALVIA

SHRUB SPECIES (OR SIMILAR) TO BE INSTALLED INCLUDE:

- JUNIPERUS HORIZONTALIS BAR HARBOUR, BAR HARBOUR JUNIPER
- JUNIPERUS HORIZONTALIS YOUNGSTOWN, ANDORRA YOUNGSTOWN JUNIPER

1. PLANTS LISTED ARE ONLY RECOMMENDATIONS THAT MATCH THE CHARACTER AND SCALE OF THE SURROUNDING LANDSCAPE. REFER TO THE COA APPROVED PLANT LIST FOR ADDITIONAL RECOMMENDATIONS.
2. CONFIRM ALL TREE SPECIES ARE PER AURORA RECOMMENDED TREE LIST

TREE SPECIES (OR SIMILAR) TO BE INSTALLED INCLUDE:

- MALUS 'ADIRONDACK', ADIRONDACK CRABAPPLE
- MALUS 'RED BARRON', RED BARRON CRABAPPLE
- PYRUS CALLERYANA 'REDSPIRE', REDSPIRE FLOWERING PEAR
- PRUNUS NIGRA 'PRINCESS KAY', PRINCESS KAY PLUM

SHRUB SPECIES (OR SIMILAR) TO BE INSTALLED INCLUDE:

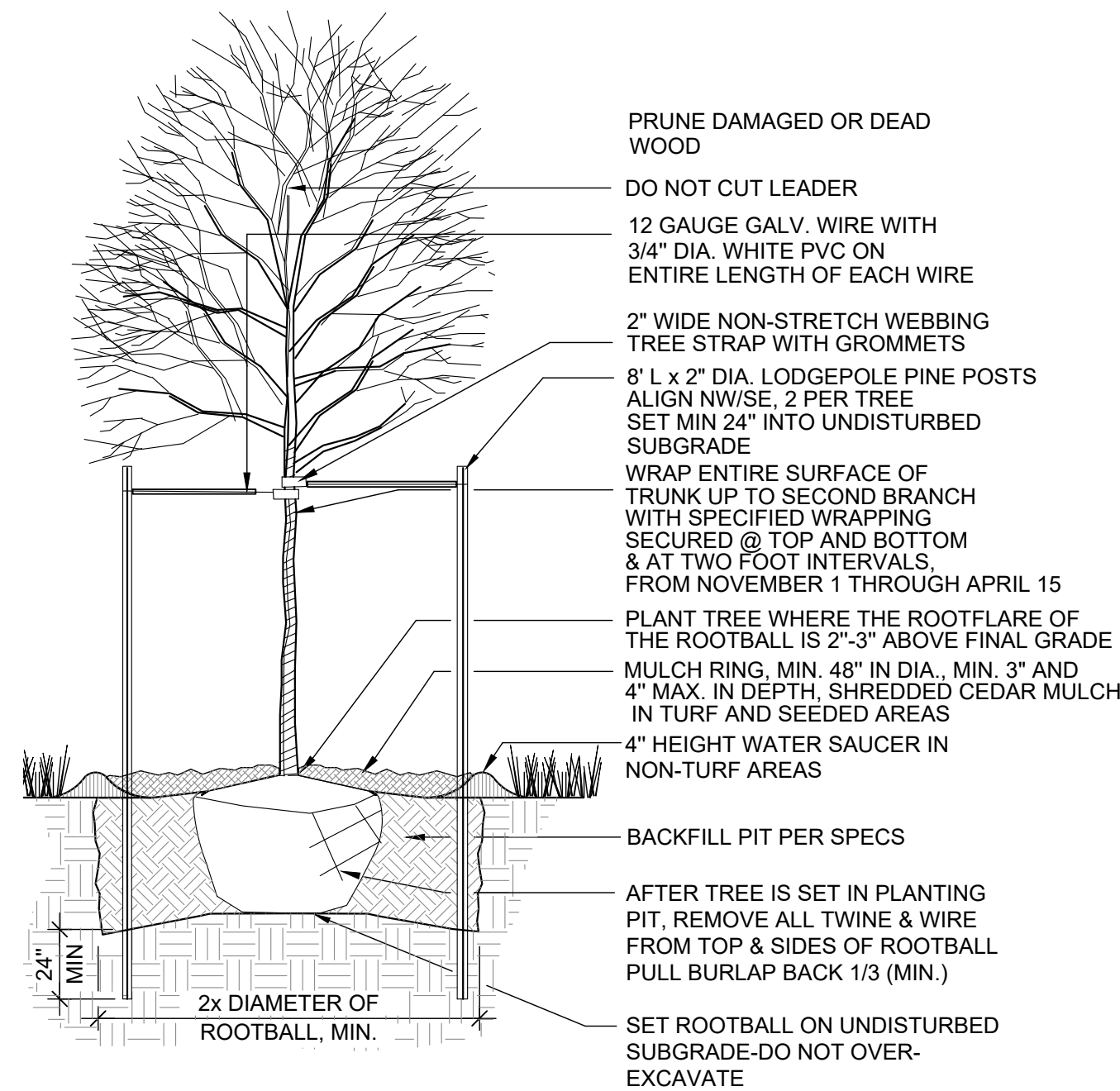
- CARYOPTERIS X CLANDONENSIS 'BLUE MIST', BLUE MIST SPIREA
- PHYSOCARPUS OPULIFOLIUS DART'S GOLD, DART'S GOLD NINEBARK
- PEROVSKIA ATRIPICIFOLIA 'LITTLE SPIRE', LITTLE SPIRE RUSSIAN SAGE
- ROSA SPP., KNOCKOUT OR MEIDLILAND ROSES, NO WHITE FLOWERS

SHRUB SPECIES (OR SIMILAR) TO BE INSTALLED INCLUDE:

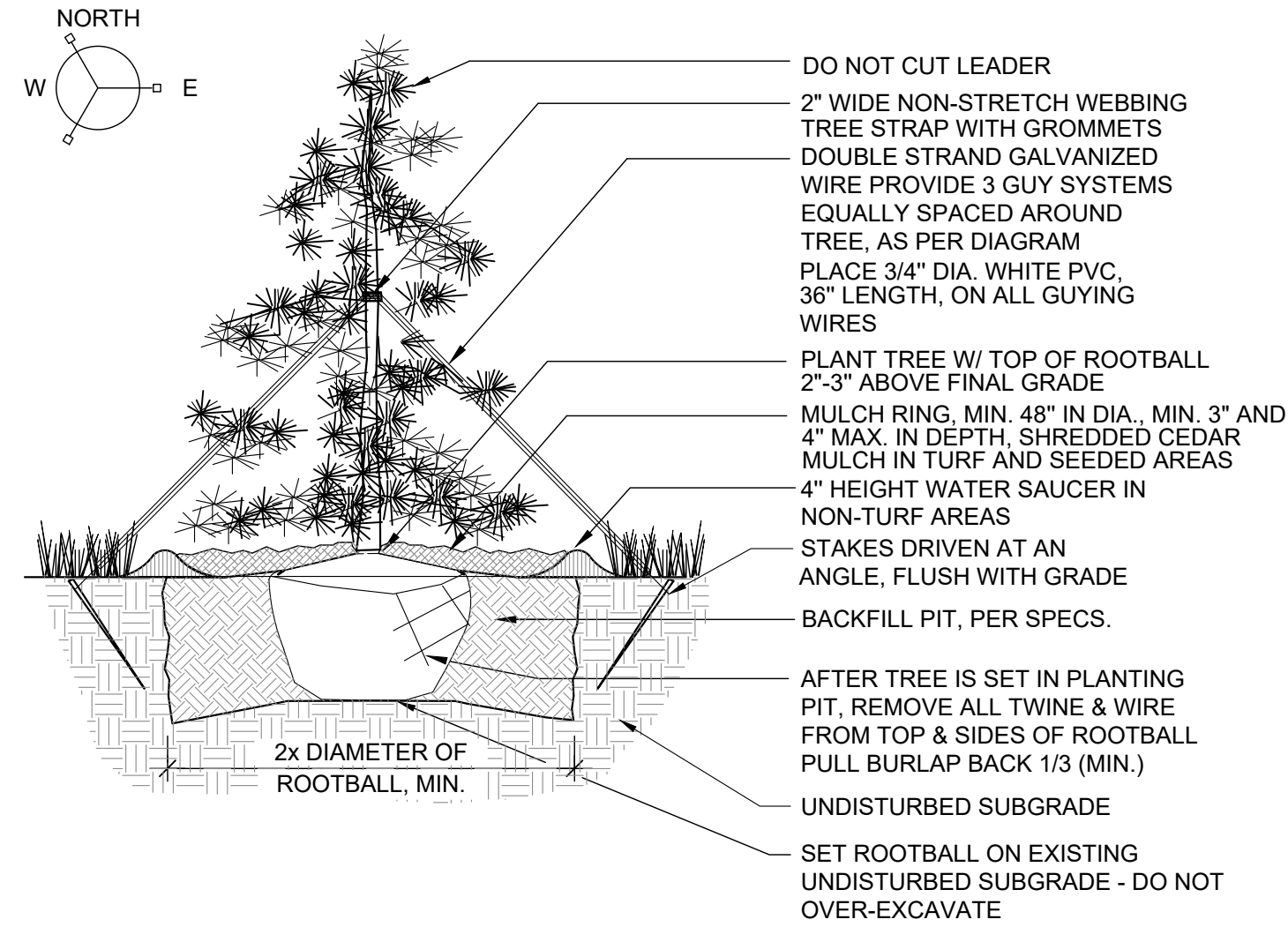
- *BOUTELOUA GRACILIS*, BLUE GRAMA GRASS
- *PENNISETUM ALOPECUROIDES* 'HAMELN', DWARF FOUNTAIN GRASS

SHRUB SPECIES (OR SIMILAR) TO BE INSTALLED INCLUDE:

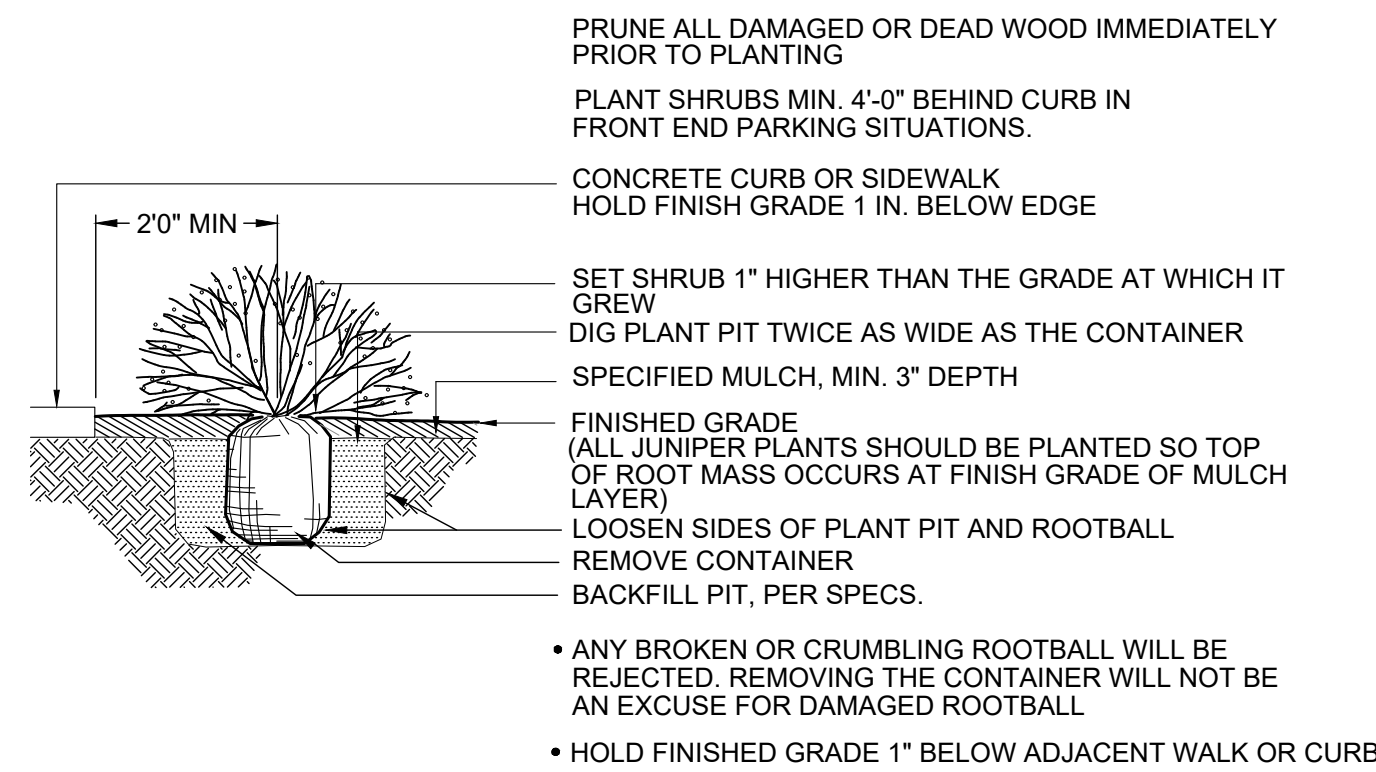
- CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER', FEATHER REED GRASS
- PANICUM VIRGATUM 'HEAVY METAL', HEAVY METAL BLUE SWITCH GRASS
- SCHIZACHYRIUM SCOPARIUM 'THE BLUES', THE BLUES LITTLE BLUESTEM GRASS



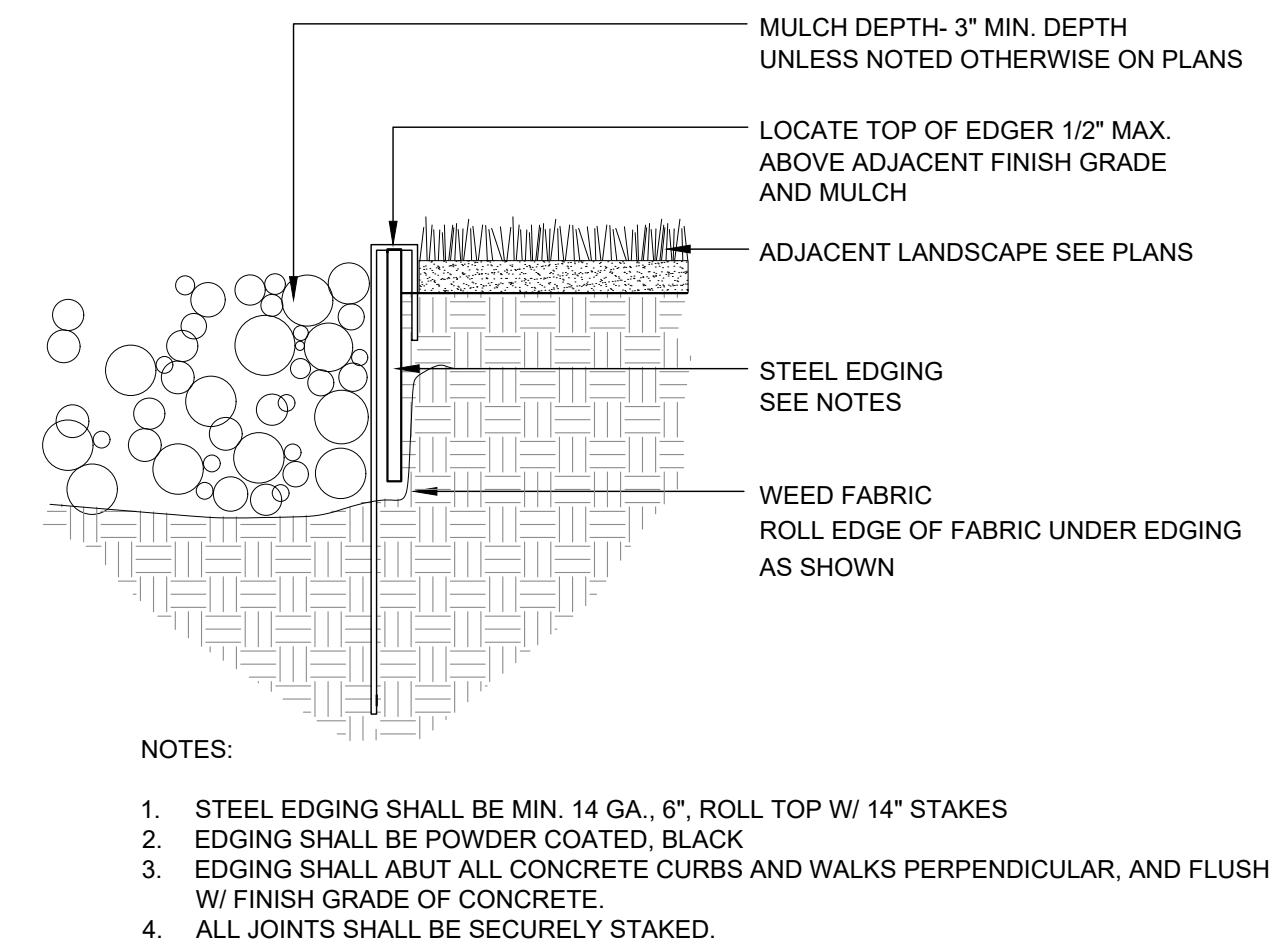
1 DECIDUOUS TREE PLANTING
SCALE: NTS



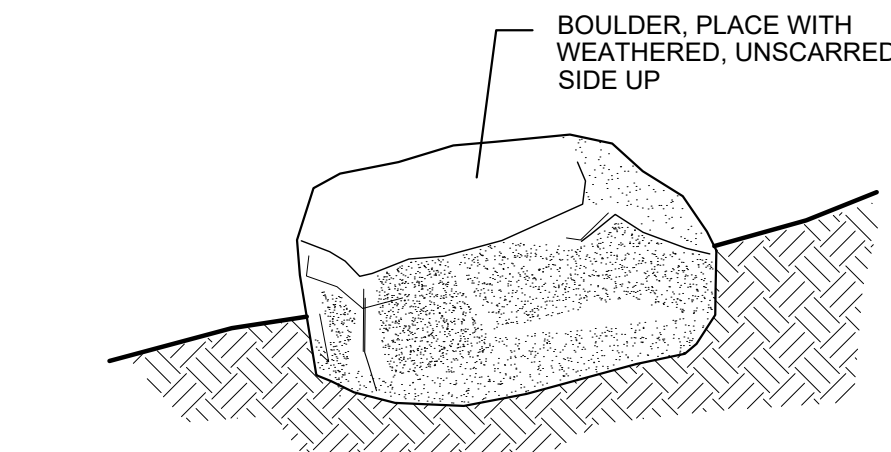
2 EVERGREEN TREE PLANTING
SCALE: NTS



3 TYPICAL SHRUB PLANTING
SCALE: NTS

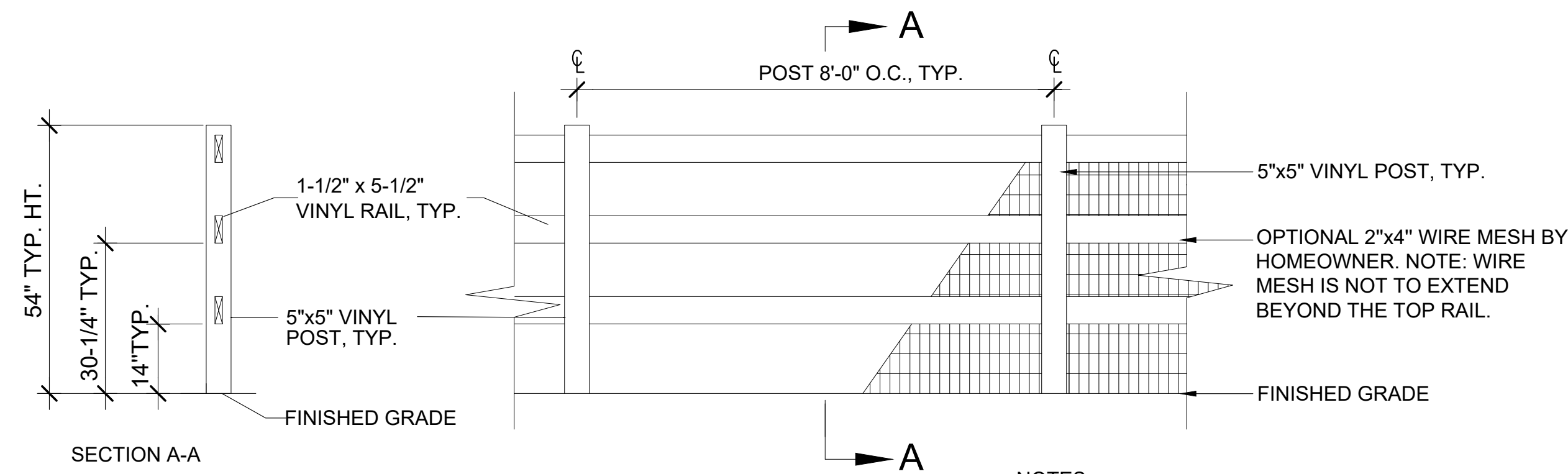


4 STEEL EDGER
SCALE: NTS



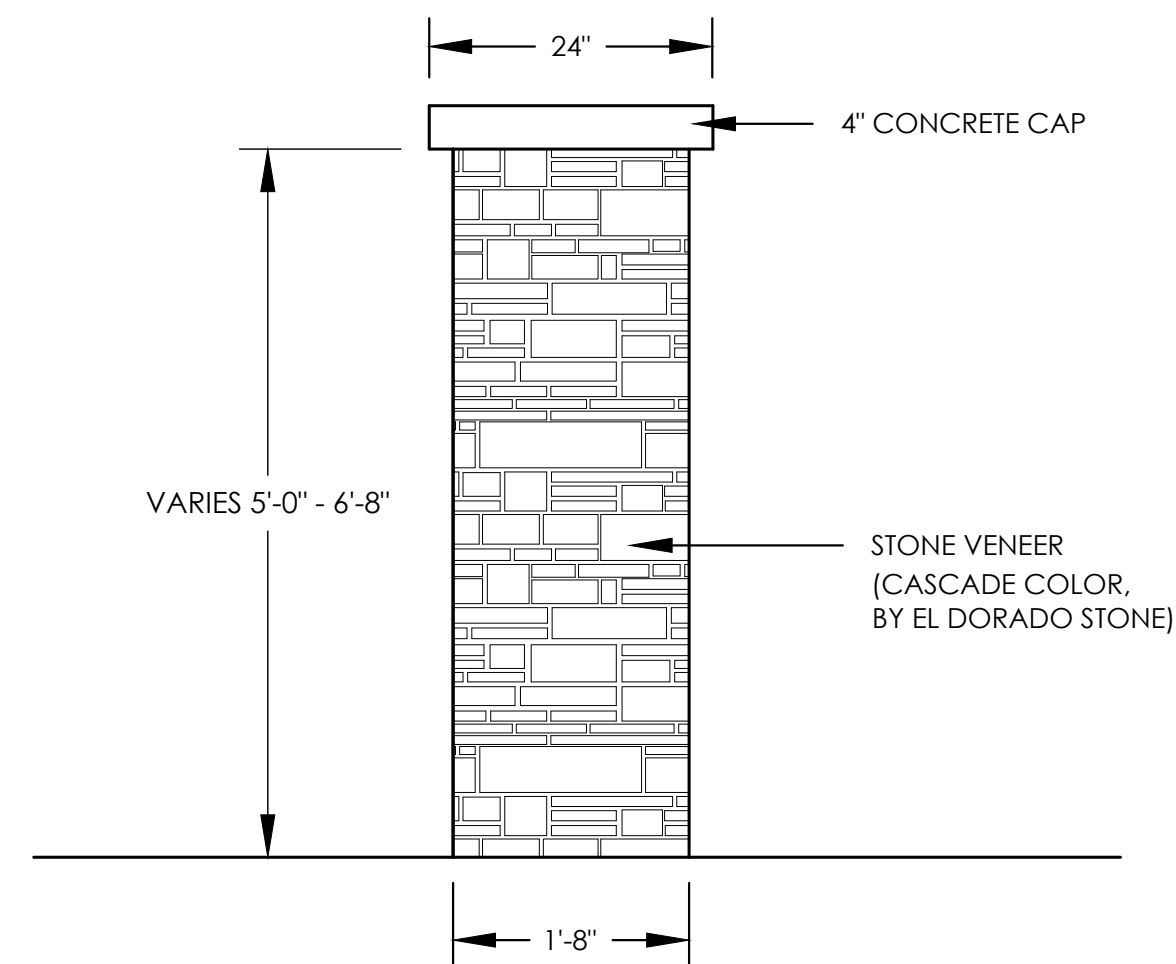
- NOTES
1. PLACE BOULDERS TO CONFIGURATIONS AND LOCATIONS AS SHOWN ON PLAN.
 2. BURY ROCK 1/3 OF TOTAL DEPTH.
 3. WASH OFF ROCKS COMPLETELY AFTER PLACEMENT.
 4. ROCKS TO BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLACEMENT.
 5. DO NOT FRACTURE ROCK DURING PLACEMENT, SUCH ACTION WILL BE CAUSE FOR REJECTION.
 6. CHOOSE AND PLACE ROCKS SO THAT A MINIMUM OF EXCAVATION SCARS ARE VISIBLE.
 7. BOULDERS SHALL BE COLORADO GRANITE WITH EXPOSED SIDES FREE OF DAMAGE, CHIPS, OR SCARING. SIZES SHALL BE 3'W X 4'L X 3'H (± 6\"/>
 8. ALL BOULDERS SHALL BE OUTSIDE ROADWAY CLEAR ZONES

5 LANDSCAPE BOULDER
SCALE: NTS



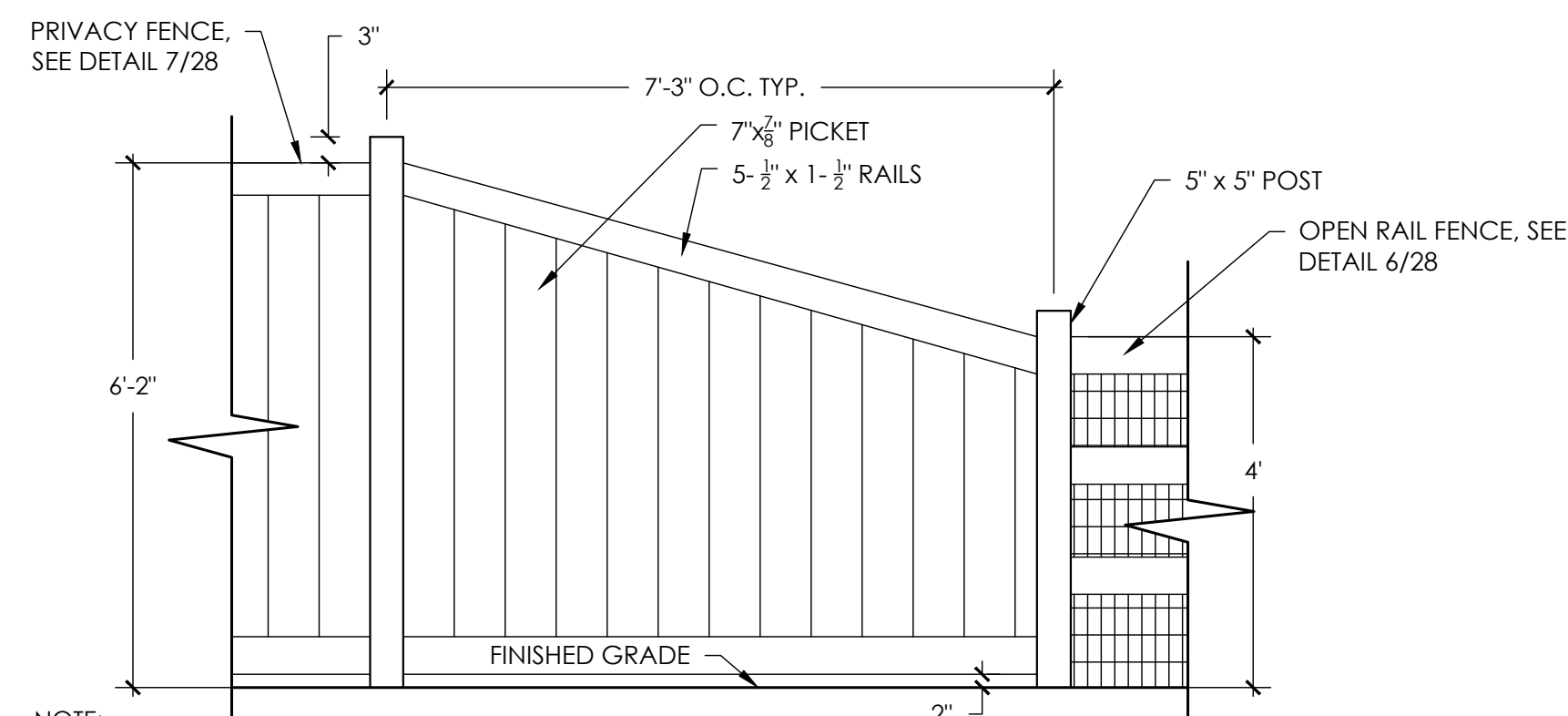
- NOTE:
1. FENCES ALONG ARTERIALS AND COLLECTORS SHALL BE SETBACK AT MINIMUM 4' FROM BACK OF DETACHED SIDEWALK OR BEHIND THE REQUIRED BUFFER.
 2. SIDE YARD FENCES WITHIN SINGLE-FAMILY LOTS SHALL BE SETBACK AT MINIMUM 1.5' FROM BACK OF SIDEWALK.
 3. ALL FENCES THAT FACE AN ARTERIAL OR COLLECTOR STREET SHALL INCLUDE AT LEAST ONE COLUMN FOR EVERY 60 LINEAR FEET AND ONE COLUMN AT EVERY FENCE CORNER AND TERMINUS.

6 OPEN RAIL FENCE
SCALE: 1/2\"/>



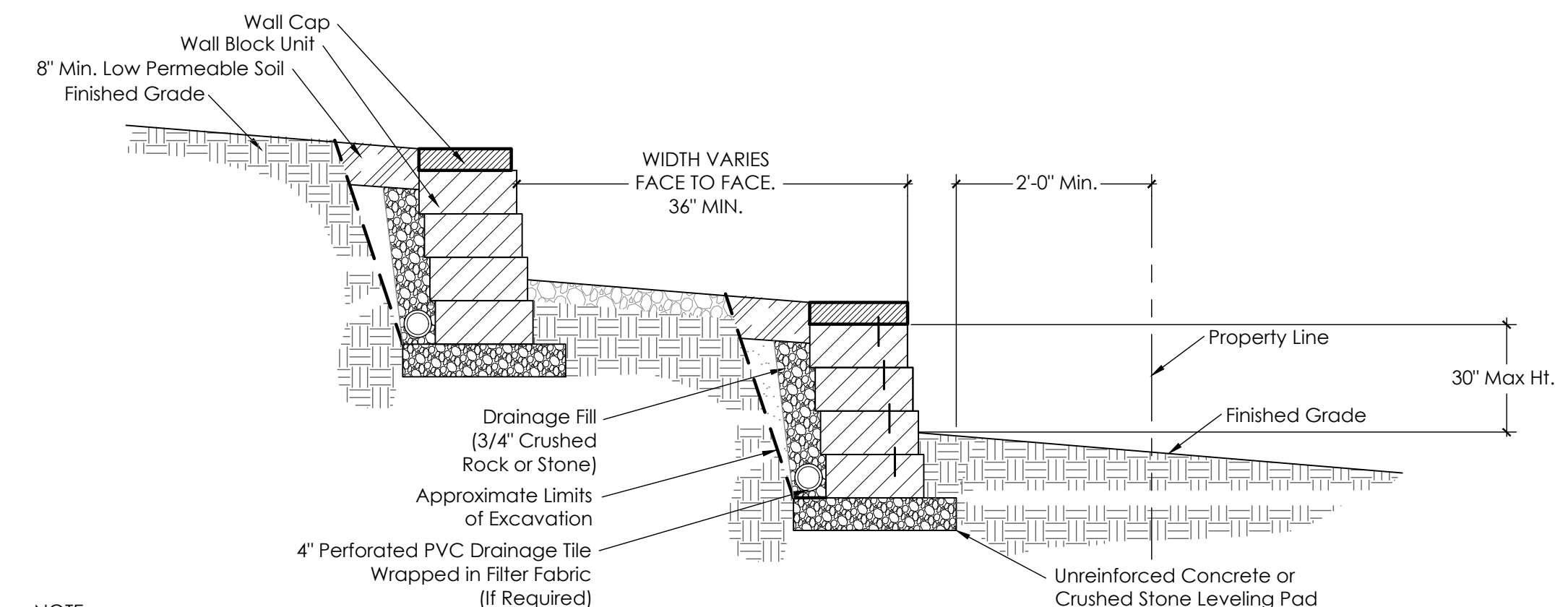
NOTE:
6\"/>

8 FENCE COLUMN
SCALE: 3/4\"/>



- NOTE:
1. TO BE PLACED BETWEEN INDIVIDUAL DEVELOPMENT PARCELS. LOCATE FENCE INSIDE RESIDENTIAL PROPERTY LINE BUTTED AGAINST PROPERTY LINE.
 2. FENCING ALONG LOCAL ROADS AND INTERIOR LOTS SHOULD BE MADE OF VINYL MATERIAL AND UTILIZE EARTH TONE COLORS. FENCING ALONG ARTERIAL AND COLLECTOR ROADS SHOULD BE CONSTRUCTED OF VINYL MATERIAL AND UTILIZE EARTH TONE COLORS, OR APPROVED EQUAL.
 3. FENCING WILL NOT BE ALLOWED WITHIN SIGHT TRIANGLE.

9 FENCE TRANSITION DETAIL
SCALE: 1/2\"/>



- NOTE:
1. ALL PORTIONS OF THE WALL AND SUPPORT NEED TO BE 2' AWAY FROM THE PROPERTY LINE.
 2. TIER WALLS AS NECESSARY. SEE SITE PLAN

10 LANDSCAPE RETAINING / SEAT WALL
SCALE: NTS



1 PET WASTE STATION
SCALE: 3/4"=1"
BRAND: DOGIPOT
MODEL: ALUMINUM DOGIPOT PET STATION (ITEM #1011-POLY)
PHONE: (800) 364-7681
WEBSITE: WWW.DOGIPOT.COM



2 TRASH RECEPTACLE
SCALE: NTS



3 SHADE SAIL
SCALE: NTS



4 BENCH
SCALE: NTS



5 BBQ GRILL AND CHARCOAL DISPOSAL BIN
SCALE: NTS



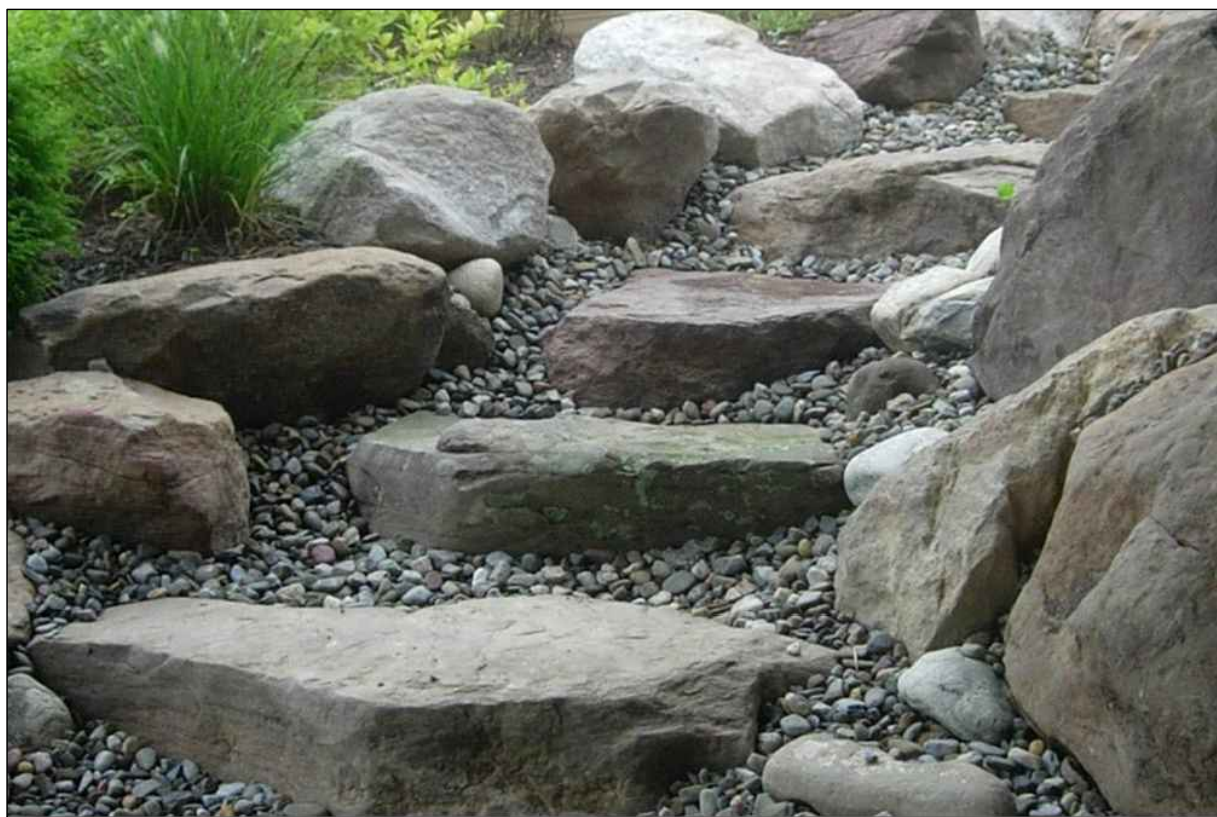
6 ADA PICNIC TABLE
SCALE: NTS



7 BOULDER WALL TRANSITION
SCALE: NTS



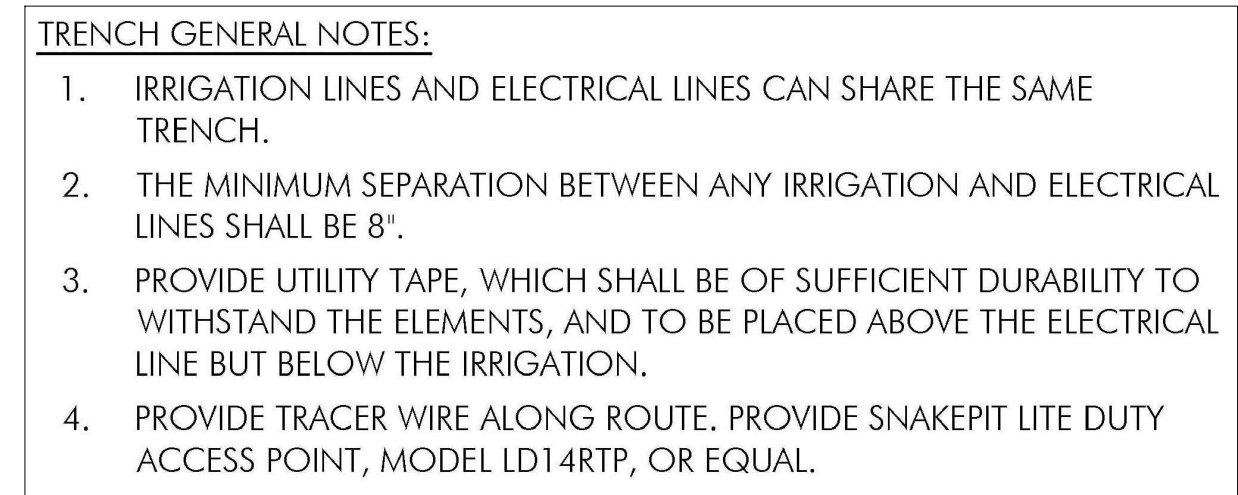
8 SEAT WALL
SCALE: NTS



9 STONE STEP
SCALE: NTS

* IMAGES ARE CONCEPTUAL. FINAL STRUCTURES AND COLORS TO BE DETERMINED AT CONSTRUCTION DOCUMENTS

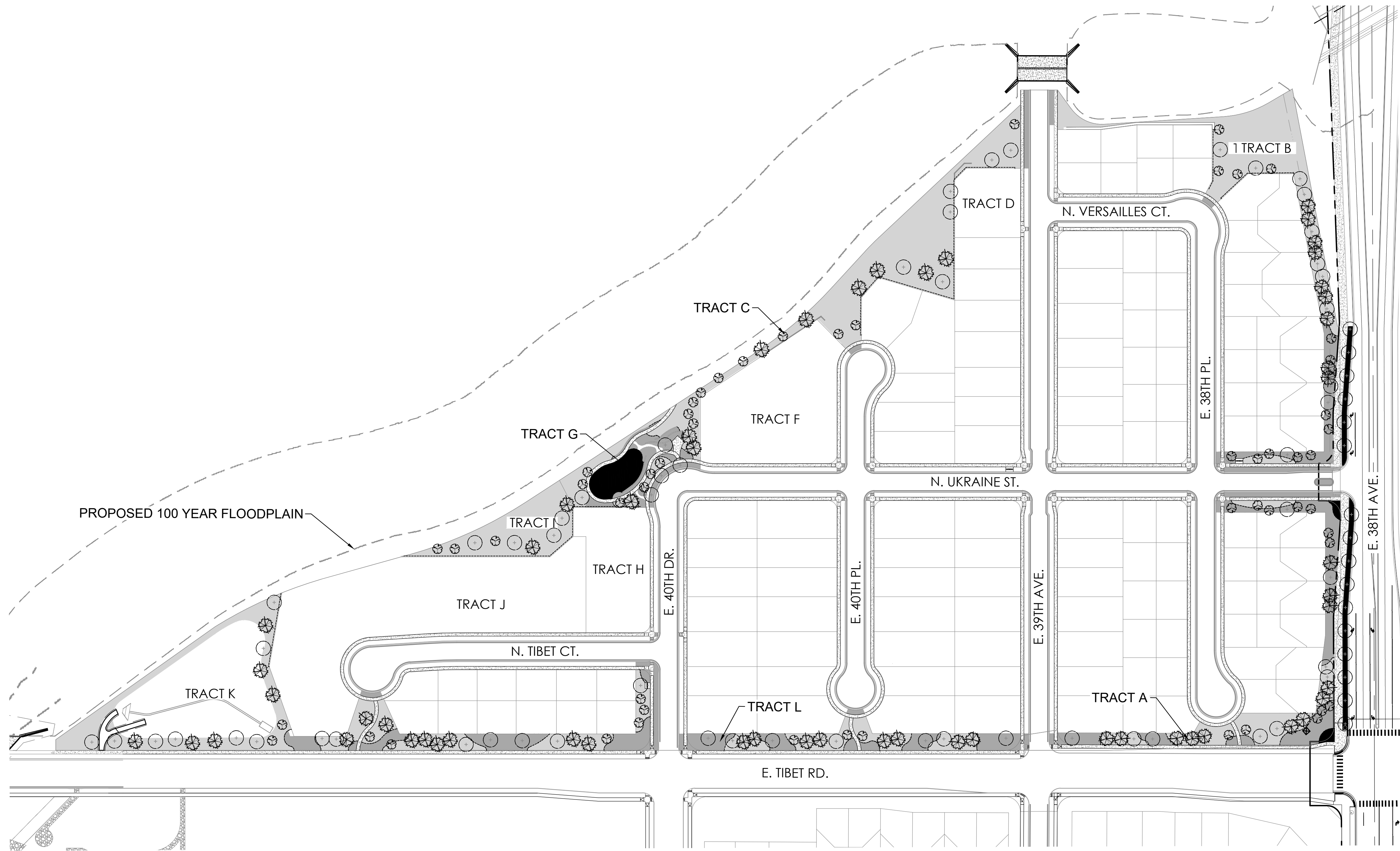
NOT FOR CONSTRUCTION



SCALE: NTS



p:\oakwood master folder\gvr east-current\11_filing 15\cod\submittals\gvr f.1.5 site plan\1.1-sheets\1.1.5 hydrozone map.dwg




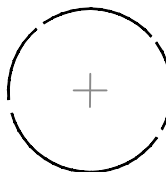




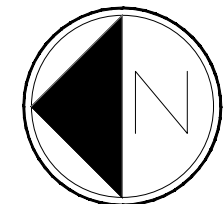
HYDROZONE TABLE

WATER USE TYPE	AREA (SF)	PERCENTAGE OF AREA	
HIGH WATER USE (COOL SEASON GRASSES)	11,412	5%	
LOW WATER USE	50,705	24%	
Z-ZONE	151,139	71%	
*TOTAL	213,256	100%	
* INCLUDES ALL HIGH WATER USE, LOW WATER USE, AND Z ZONE IN TRACT AREAS.			
	QUANTITY	AREA VALUE (SF)	TOTAL AREA
CANOPY TREES	73	706	51,538
EVERGREEN/ORNAMENTAL TREES	110	177	19,470
TOTAL			71,008
TOTAL AREA	284,264		

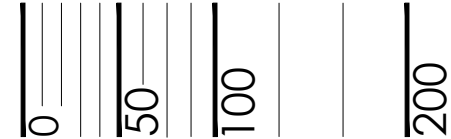
*TOTAL LANDSCAPE AREA (SF) DOES NOT INCLUDE FRONT YARD CURBSIDE LANDSCAPE ADJACENT TO INTERIOR LOTS. TOTAL LANDSCAPE AREA INCLUDES LANDSCAPE IN FRONT OF TRACTS AND IN TRACTS NOT INCLUDING AREA WITHIN 100 YEAR FLOOD PLAIN.

LEGEND

-  HIGH WATER USE: COOL SEASON GRASSES
-  LOW WATER USE: SHRUB BED
-  Z-ZONE: NATIVE SEED AREA
-  DECIDUOUS CANOPY TREES
73 TREES
-  ORNAMENTAL TREES
55 TREES
-  EVERGREEN TREES
55 TREES



Scale: 1"= 100'-0"



PROJECT NAME



GREEN VALLEY RANCH EAST FILING 15
AURORA, COLORADO
LANDSCAPE PLANS

SHEET TITLE

HYDROZONE
MAP

SHEET NUMBER

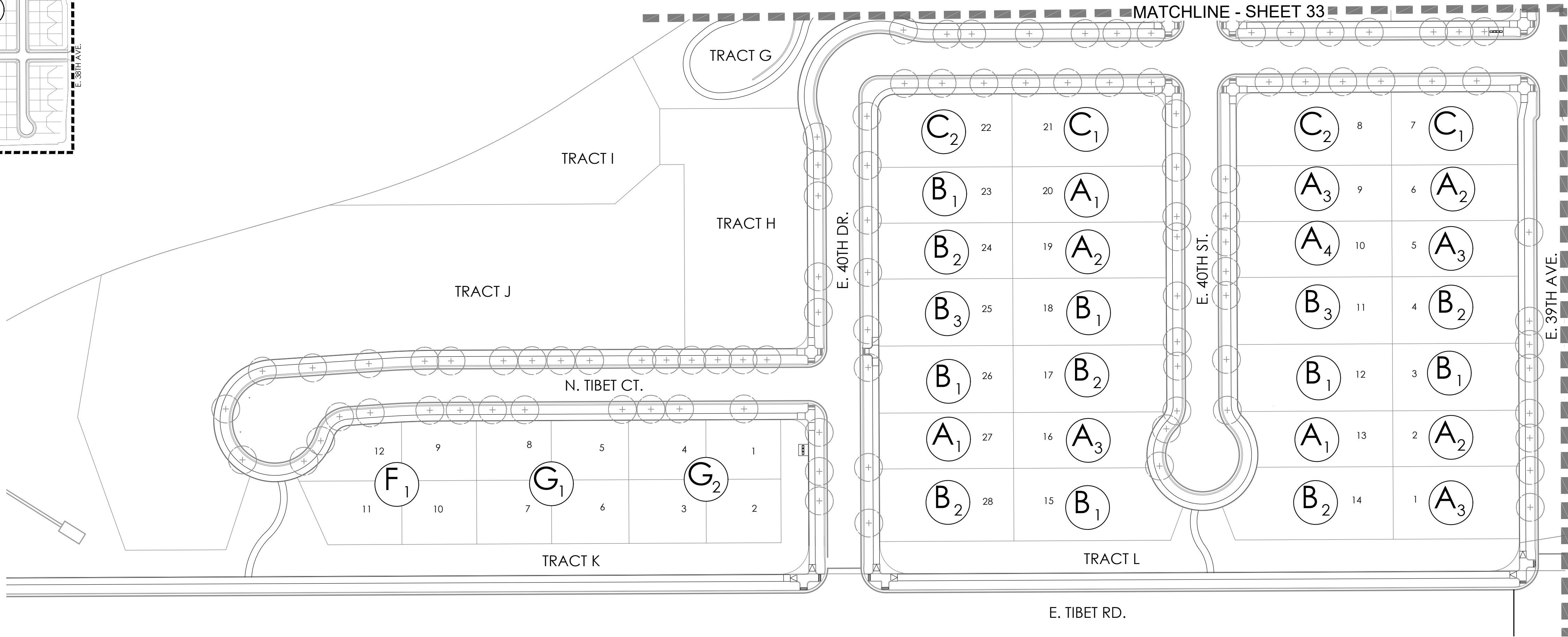
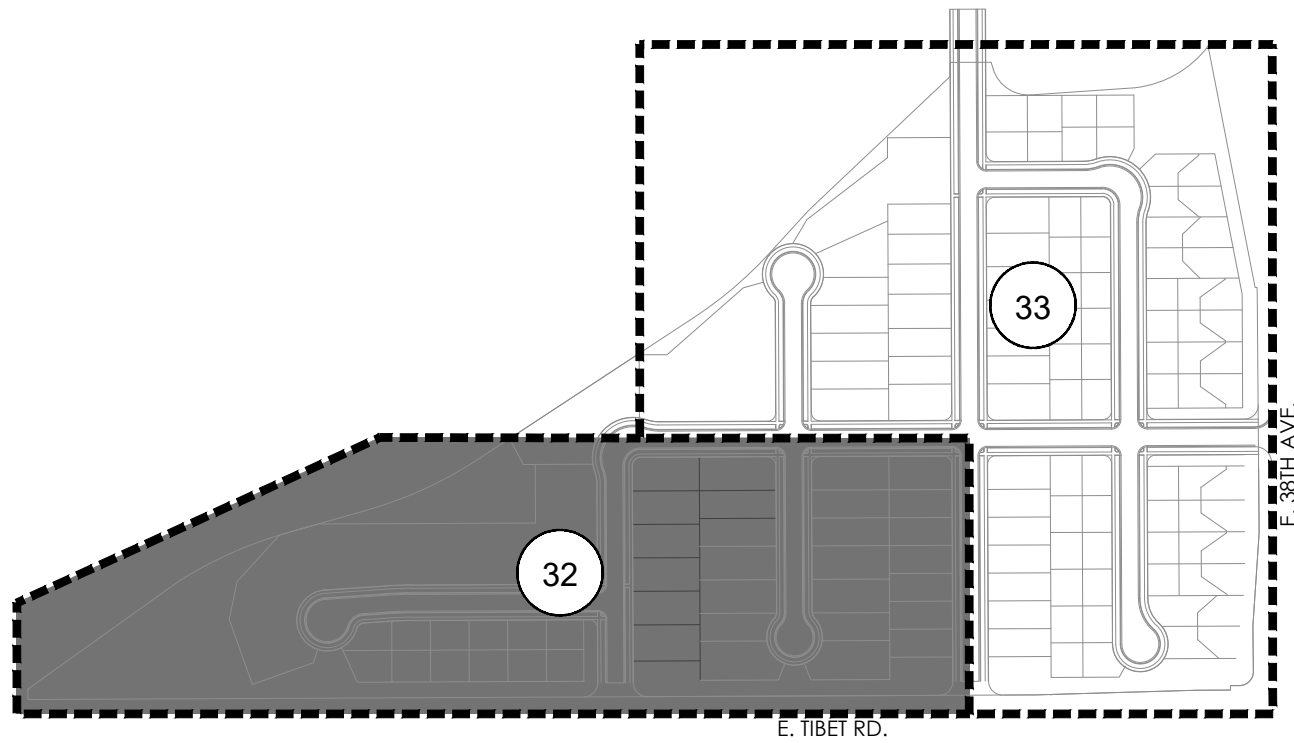
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SHEET 31 OF 36

August 31, 2022

NOT FOR CONSTRUCTION

KEY MAP



RESIDENTIAL LOT TYPE LEGEND

TRADITIONAL LOTS

A SINGLE FAMILY HOME (MID-BLOCK LOT) 50'-60' X 110'

- LANDSCAPE STANDARDS:
- ONE (1) ORNAMENTAL TREES IN FRONT YARD
 - MINIMUM COUNT OF SHRUBS REQUIRED IS ELEVEN (11) AND FIFTEEN (15) PERENNIALS OR GRASSES IN FRONT YARD, AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
 - MINIMUM COUNT OF SHRUBS REQUIRED IS FOUR (4) AND THREE (3) GRASSES IN CURB SIDE LANDSCAPE
 - REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2'
 - TURF SHALL NOT BE PERMITTED IN FRONT YARD

B SINGLE FAMILY HOME (MID-BLOCK LOT) 60'-70' X 110'

- LANDSCAPE STANDARDS:
- ONE (1) ORNAMENTAL TREE(S) AND ONE (1) COLUMNAR SHADE TREE IN FRONT YARD
 - MINIMUM COUNT OF SHRUBS REQUIRED IS SIXTEEN (16) AND TWENTY-ONE (21) PERENNIALS OR GRASSES IN FRONT YARD, AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
 - MINIMUM COUNT OF SHRUBS REQUIRED IS SIX (6) AND FOUR (4) GRASSES IN CURB SIDE LANDSCAPE
 - REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2'
 - TURF SHALL NOT BE PERMITTED IN FRONT YARD

C SINGLE FAMILY HOME (CORNER LOT) 60'-70' X 110'

- LANDSCAPE STANDARDS:
- ONE (1) ORNAMENTAL TREE(S) AND ONE (1) COLUMNAR SHADE TREE IN FRONT YARD
 - MINIMUM COUNT OF SHRUBS REQUIRED IS SIXTEEN (16) AND TWENTY-ONE (21) PERENNIALS OR GRASSES IN FRONT YARD, AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
 - MINIMUM COUNT OF SHRUBS REQUIRED IS TWENTY THREE (23) AND TEN(10) GRASSES IN CURB SIDE LANDSCAPE
 - REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2'
 - TURF SHALL NOT BE PERMITTED IN FRONT YARD

PORCHLIGHT

F SINGLE FAMILY HOME (4 PACK MID-BLOCK EXTRA LARGE LOT)

- LANDSCAPE STANDARDS:
- FOUR (4) ORNAMENTAL TREES AND ONE (1) COLUMNAR SHADE TREE IN FRONT YARDS
 - MINIMUM COUNT OF SHRUBS REQUIRED IS THIRTY-NINE (39) AND FIFTY-ONE (51) PERENNIALS OR GRASSES PER FOUR (4) PACK. AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
 - MINIMUM COUNT OF SHRUBS IS REQUIRED IS TWENTY (20) AND THIRTEEN (13) GRASSES IN CURB SIDE LANDSCAPE
 - REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2', PER LOT, FOUR (4) TOTAL
 - TURF SHALL NOT BE PERMITTED IN FRONT YARD

G SINGLE FAMILY HOME (4 PACK MID-BLOCK LOT)

- LANDSCAPE STANDARDS:
- ONE (1) ORNAMENTAL TREE IN FRONT YARD, PER LOT, FOUR (4) TOTAL
 - MINIMUM COUNT OF SHRUBS REQUIRED IS THIRTY-SIX (36) AND FORTY-EIGHT (48) PERENNIALS OR GRASSES PER FOUR (4) PACK. AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
 - MINIMUM COUNT OF SHRUBS IS REQUIRED IS THIRTEEN (13) AND NINE (9) GRASSES IN CURB SIDE LANDSCAPE
 - REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2', PER LOT, FOUR (4) TOTAL
 - TURF SHALL NOT BE PERMITTED IN FRONT YARD

H SINGLE FAMILY HOME (4 PACK CORNER LOT)

- LANDSCAPE STANDARDS:
- FOUR (4) ORNAMENTAL TREES AND ONE (1) COLUMNAR SHADE TREE IN FRONT YARDS
 - MINIMUM COUNT OF SHRUBS REQUIRED IS THIRTY-SIX (36) AND FORTY-EIGHT(48) PERENNIALS OR GRASS PER FOUR (4) PACK. AT LEAST THREE (3) PLANT SPECIES SHALL BE INCLUDED
 - MINIMUM COUNT OF SHRUBS REQUIRED IS THIRTY-FIVE (35) AND FIFTEEN (15) GRASSES IN CURB SIDE LANDSCAPE
 - REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2', PER LOT, FOUR (4) TOTAL
 - TURF SHALL NOT BE PERMITTED IN FRONT YARD

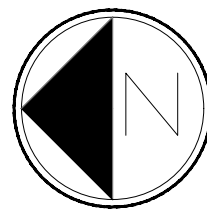
CARRIAGE HOUSE

J SINGLE FAMILY HOME (4 PACK MID-BLOCK LOT)

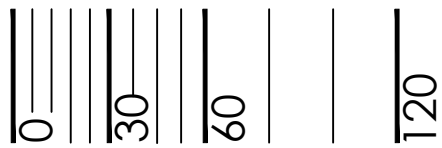
- LANDSCAPE STANDARDS:
- ONE (1) ORNAMENTAL TREES IN FRONT YARD, PER LOT, FOUR (4) TOTAL
 - MINIMUM COUNT OF SHRUBS REQUIRED IS THIRTY (30) AND THIRTY-NINE (39) PERENNIALS OR GRASSES PER FOUR (4) PACK. AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
 - MINIMUM COUNT OF SHRUBS IS REQUIRED IS ELEVEN (11) AND EIGHT (8) GRASSES IN CURB SIDE LANDSCAPE
 - REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2', PER LOT, FOUR (4) TOTAL
 - TURF SHALL NOT BE PERMITTED IN FRONT YARD

K SINGLE FAMILY HOME (6 PACK MID-BLOCK LOT)

- LANDSCAPE STANDARDS:
- REFER TO CSP LANDSCAPE PLANS FOR CURB SIDE TREE LOCATIONS
 - ONE (1) ORNAMENTAL TREE IN FRONT YARD, PER LOT, SIX (6) TOTAL
 - MINIMUM COUNT OF SHRUBS REQUIRED IS FIFTY (50) AND SIXTY-THREE (63) PERENNIALS OR GRASS PER SIX (6) PACK. AT LEAST THREE (3) PLANT SPECIES SHALL BE INCLUDED
 - MINIMUM COUNT OF SHRUBS REQUIRED IS ELEVEN (11) AND EIGHT (8) GRASSES IN CURB SIDE LANDSCAPE
 - REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2', PER LOT, SIX (6) TOTAL
 - TURF SHALL NOT BE PERMITTED IN FRONT YARD



Scale: 1"= 60'-0"



NOT FOR CONSTRUCTION

OVERALL
WATER WISE
EXHIBIT

GREEN VALLEY RANCH EAST FILING 15
AURORA, COLORADO
LANDSCAPE PLANS

PROJECT NAME



811

SHEET TITLE

SHEET NUMBER

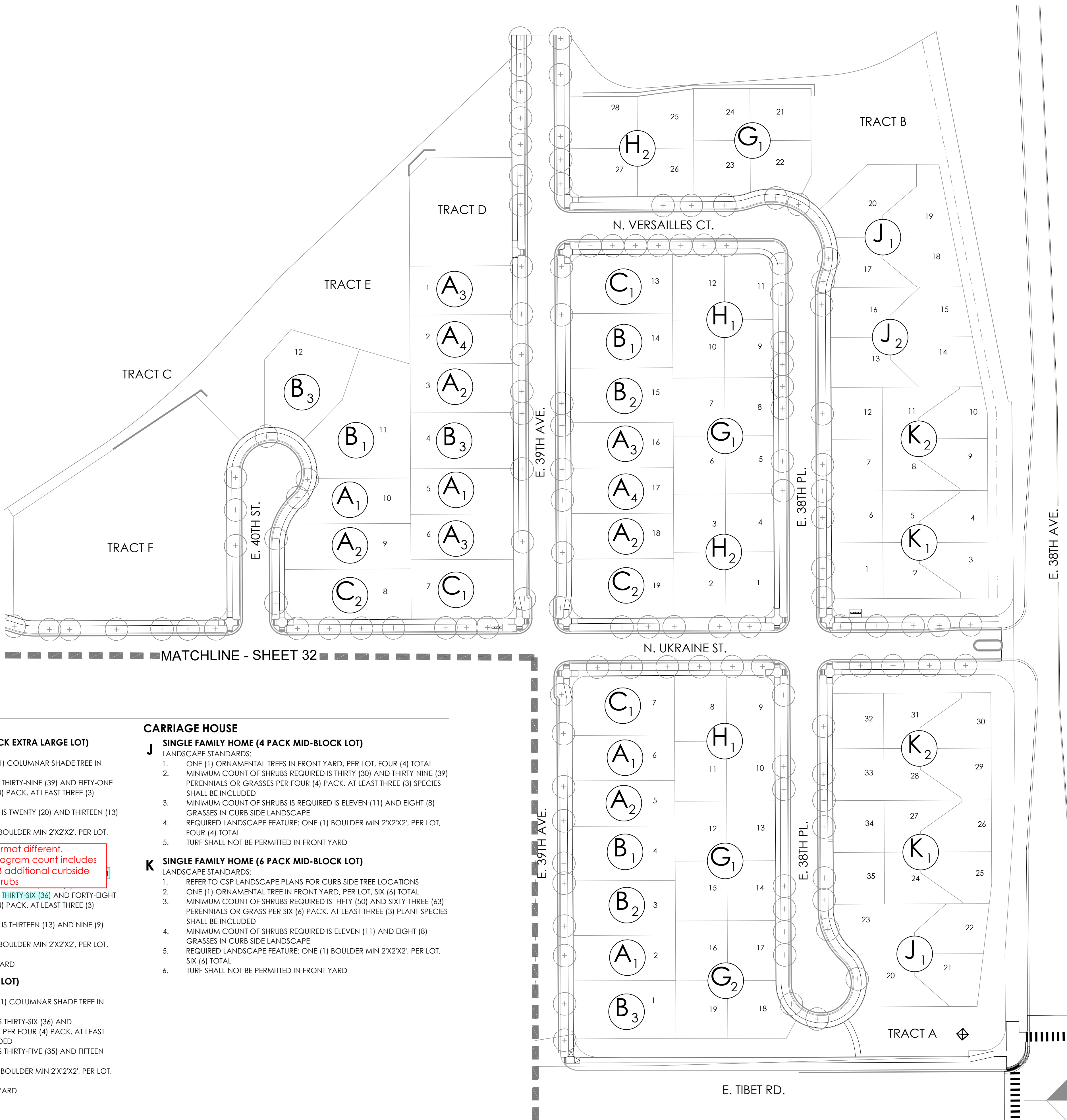
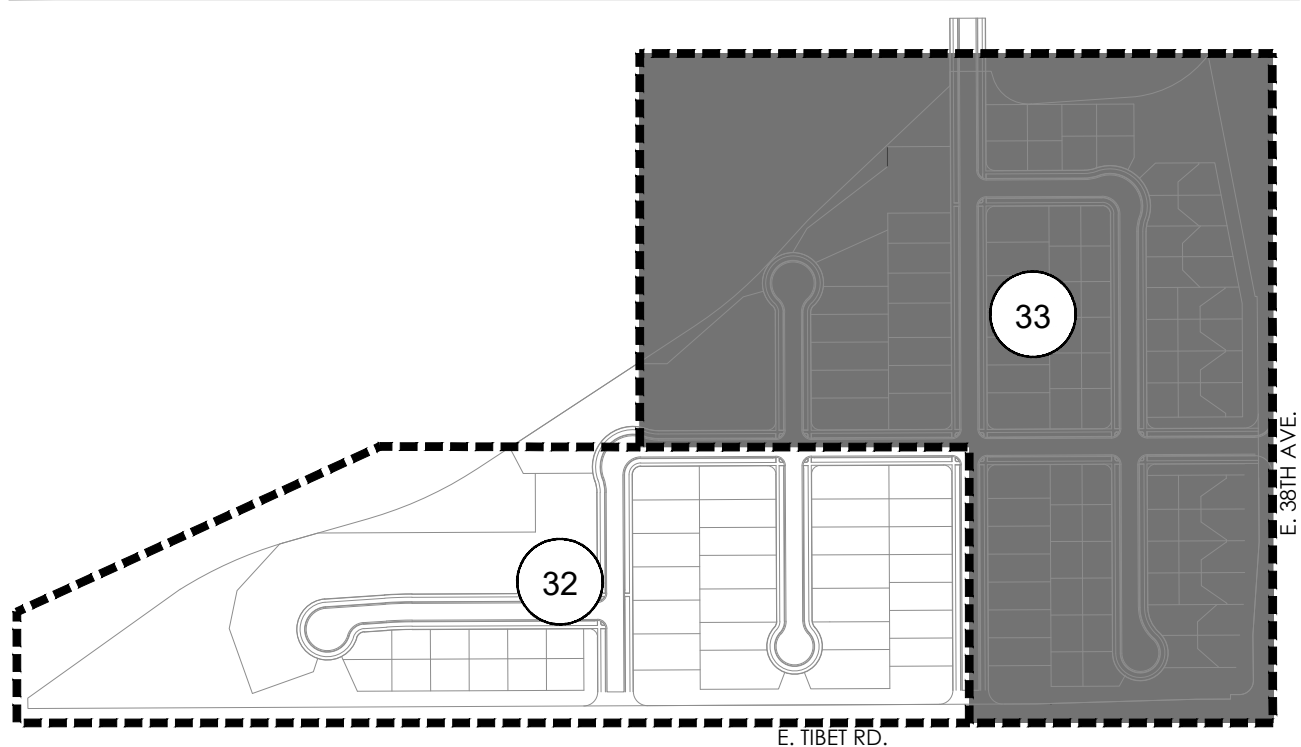
WW.1

SHEET 32 OF 36

August 31, 2022



KEY MAP



RESIDENTIAL LOT TYPE LEGEND

TRADITIONAL LOTS

- A SINGLE FAMILY HOME (MID-BLOCK LOT) 50'-60' X 110'**
LANDSCAPE STANDARDS:
1. ONE (1) ORNAMENTAL TREES IN FRONT YARD
2. MINIMUM COUNT OF SHRUBS REQUIRED IS ELEVEN (11) AND FIFTEEN (15) PERENNIALS OR GRASSES IN FRONT YARD. AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
3. MINIMUM COUNT OF SHRUBS REQUIRED IS FOUR (4) AND THREE (3) GRASSES IN CURB SIDE LANDSCAPE
4. REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2'
5. TURF SHALL NOT BE PERMITTED IN FRONT YARD
- B SINGLE FAMILY HOME (MID-BLOCK LOT) 60'-70' X 110'**
LANDSCAPE STANDARDS:
1. ONE (1) ORNAMENTAL TREE(S) AND ONE (1) COLUMNAR SHADE TREE IN FRONT YARD
2. MINIMUM COUNT OF SHRUBS REQUIRED IS SIXTEEN (16) AND TWENTY-ONE (21) PERENNIALS OR GRASSES IN FRONT YARD. AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
3. MINIMUM COUNT OF SHRUBS REQUIRED IS SIX (6) AND FOUR (4) GRASSES IN CURB SIDE LANDSCAPE
4. REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2'
5. TURF SHALL NOT BE PERMITTED IN FRONT YARD
- C SINGLE FAMILY HOME (CORNER LOT) 60'-70' X 110'**
LANDSCAPE STANDARDS:
1. ONE (1) ORNAMENTAL TREE(S) AND ONE (1) COLUMNAR SHADE TREE IN FRONT YARD
2. MINIMUM COUNT OF SHRUBS REQUIRED IS SIXTEEN (16) AND TWENTY-ONE (21) PERENNIALS OR GRASSES IN FRONT YARD. AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
3. MINIMUM COUNT OF SHRUBS REQUIRED IS TWENTY THREE (23) AND TEN(10) GRASSES IN CURB SIDE LANDSCAPE
4. REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2'
5. TURF SHALL NOT BE PERMITTED IN FRONT YARD

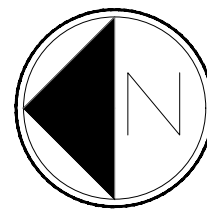
PORCHLIGHT

- F SINGLE FAMILY HOME (4 PACK MID-BLOCK EXTRA LARGE LOT)**
LANDSCAPE STANDARDS:
1. FOUR (4) ORNAMENTAL TREES AND ONE (1) COLUMNAR SHADE TREE IN FRONT YARDS
2. MINIMUM COUNT OF SHRUBS REQUIRED IS THIRTY-NINE (39) AND FIFTY-ONE (51) PERENNIALS OR GRASSES PER FOUR (4) PACK. AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
3. MINIMUM COUNT OF SHRUBS IS REQUIRED IS TWENTY (20) AND THIRTEEN (13) GRASSES IN CURB SIDE LANDSCAPE
4. REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2', PER LOT, FOUR (4) TOTAL
5. TURF SHALL NOT BE PERMITTED IN FRONT YARD
- G SINGLE FAMILY HOME (4 PACK MID-BLOCK LOT)**
LANDSCAPE STANDARDS:
1. ONE (1) ORNAMENTAL TREE IN FRONT YARD
2. MINIMUM COUNT OF SHRUBS REQUIRED IS THIRTY-SIX (36) AND FORTY-EIGHT (48) PERENNIALS OR GRASSES PER FOUR (4) PACK. AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
3. MINIMUM COUNT OF SHRUBS IS REQUIRED IS THIRTEEN (13) AND NINE (9) GRASSES IN CURB SIDE LANDSCAPE
4. REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2', PER LOT, FOUR (4) TOTAL
5. TURF SHALL NOT BE PERMITTED IN FRONT YARD
- H SINGLE FAMILY HOME (4 PACK CORNER LOT)**
LANDSCAPE STANDARDS:
1. FOUR (4) ORNAMENTAL TREES AND ONE (1) COLUMNAR SHADE TREE IN FRONT YARDS
2. MINIMUM COUNT OF SHRUBS REQUIRED IS THIRTY-SIX (36) AND FORTY-EIGHT(48) PERENNIALS OR GRASS PER FOUR (4) PACK. AT LEAST THREE (3) PLANT SPECIES SHALL BE INCLUDED
3. MINIMUM COUNT OF SHRUBS REQUIRED IS THIRTY-FIVE (35) AND FIFTEEN (15) GRASSES IN CURB SIDE LANDSCAPE
4. REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2', PER LOT, FOUR (4) TOTAL
5. TURF SHALL NOT BE PERMITTED IN FRONT YARD

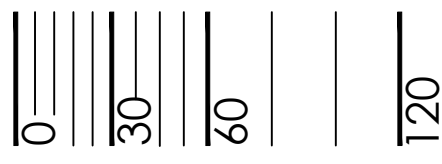
CARRIAGE HOUSE

- J SINGLE FAMILY HOME (4 PACK MID-BLOCK LOT)**
LANDSCAPE STANDARDS:
1. ONE (1) ORNAMENTAL TREES IN FRONT YARD, PER LOT, FOUR (4) TOTAL
2. MINIMUM COUNT OF SHRUBS REQUIRED IS THIRTY (30) AND THIRTY-NINE (39) PERENNIALS OR GRASSES PER FOUR (4) PACK. AT LEAST THREE (3) SPECIES SHALL BE INCLUDED
3. MINIMUM COUNT OF SHRUBS IS REQUIRED IS ELEVEN (11) AND EIGHT (8) GRASSES IN CURB SIDE LANDSCAPE
4. REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2', PER LOT, FOUR (4) TOTAL
5. TURF SHALL NOT BE PERMITTED IN FRONT YARD
- K SINGLE FAMILY HOME (6 PACK MID-BLOCK LOT)**
LANDSCAPE STANDARDS:
1. REFER TO CSP LANDSCAPE PLANS FOR CURB SIDE TREE LOCATIONS
2. ONE (1) ORNAMENTAL TREE IN FRONT YARD, PER LOT, SIX (6) TOTAL
3. MINIMUM COUNT OF SHRUBS REQUIRED IS FIFTY (50) AND SIXTY-THREE (63) PERENNIALS OR GRASS PER SIX (6) PACK. AT LEAST THREE (3) PLANT SPECIES SHALL BE INCLUDED
4. MINIMUM COUNT OF SHRUBS REQUIRED IS ELEVEN (11) AND EIGHT (8) GRASSES IN CURB SIDE LANDSCAPE
5. REQUIRED LANDSCAPE FEATURE: ONE (1) BOULDER MIN 2'X2'X2', PER LOT, SIX (6) TOTAL
6. TURF SHALL NOT BE PERMITTED IN FRONT YARD

format different.
diagram count includes
13 additional curbside
shrubs



Scale: 1"= 60'-0"



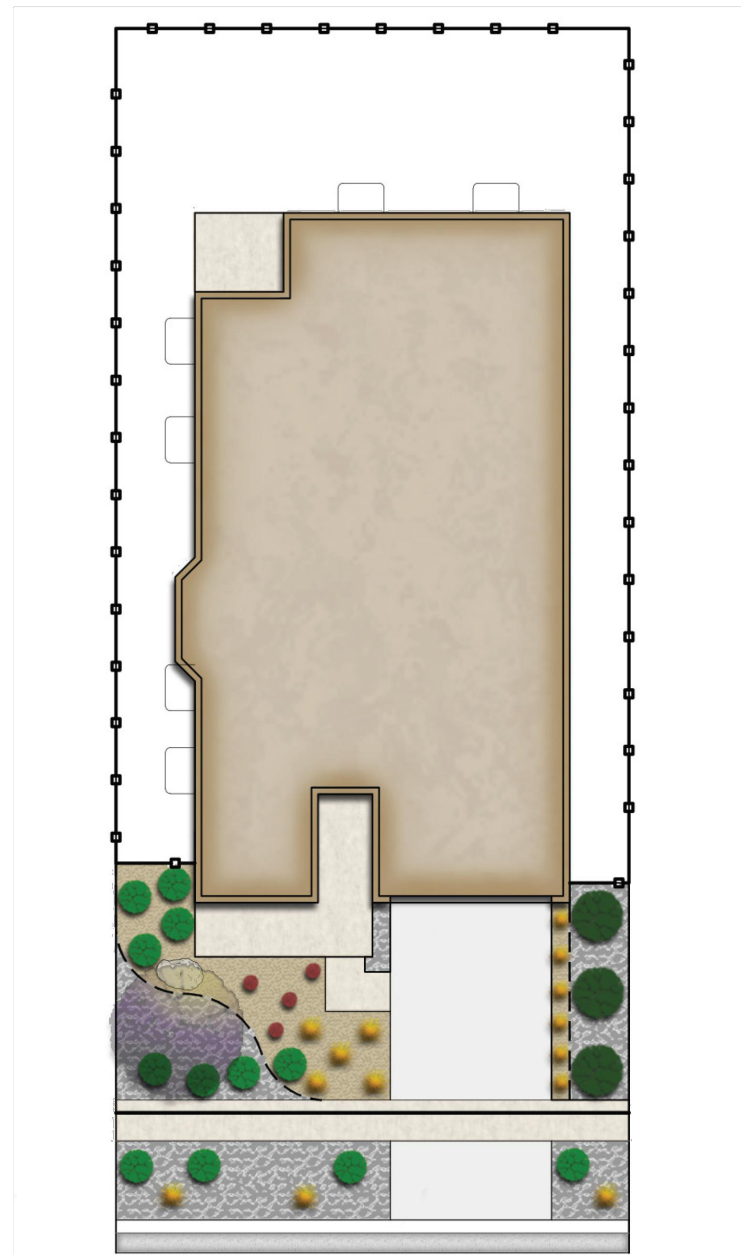
NOT FOR CONSTRUCTION

p:\oakwood master folder\gvr east-current\1_filing 15\cad\submittals\gvr_e_1_1_sheets\1.15 individual irrigation rebates.dwg

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk

- Legend
- Steel Edger
 - Accent Boulder Minimum Size: 24"x 24" x 24"
 - Cedar Mulch
 - Rock Mulch

Plant Type	Size	Qty.
Ornamental Tree	2.0" Cal	1
Shrubs	#5 Cont	15
Perennials	#1 Cont	4
Front Yard Grasses	#1 Cont	11
Curbside Grasses	#5 Cont	3



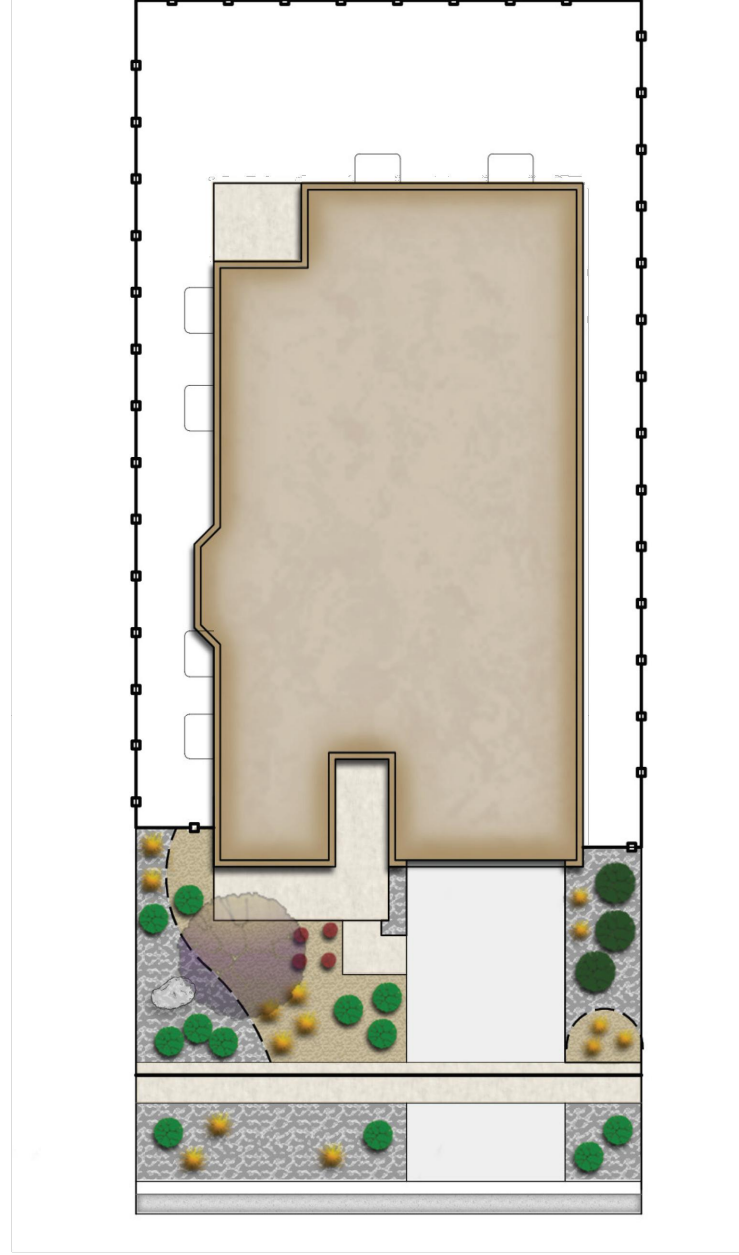
GVR-E Filing 15 Front Yard Landscape Typical
Single Family Mid-Block Lot Type 1 (50'-60' x 110')

terraco design
Not to Scale
July 2022
A1

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk

- Legend
- Steel Edger
 - Accent Boulder Minimum Size: 24"x 24" x 24"
 - Cedar Mulch
 - Rock Mulch

Plant Type	Size	Qty.
Ornamental Tree	2.0" Cal	1
Shrubs	#5 Cont	15
Perennials	#1 Cont	4
Front Yard Grasses	#1 Cont	11
Curbside Grasses	#5 Cont	3



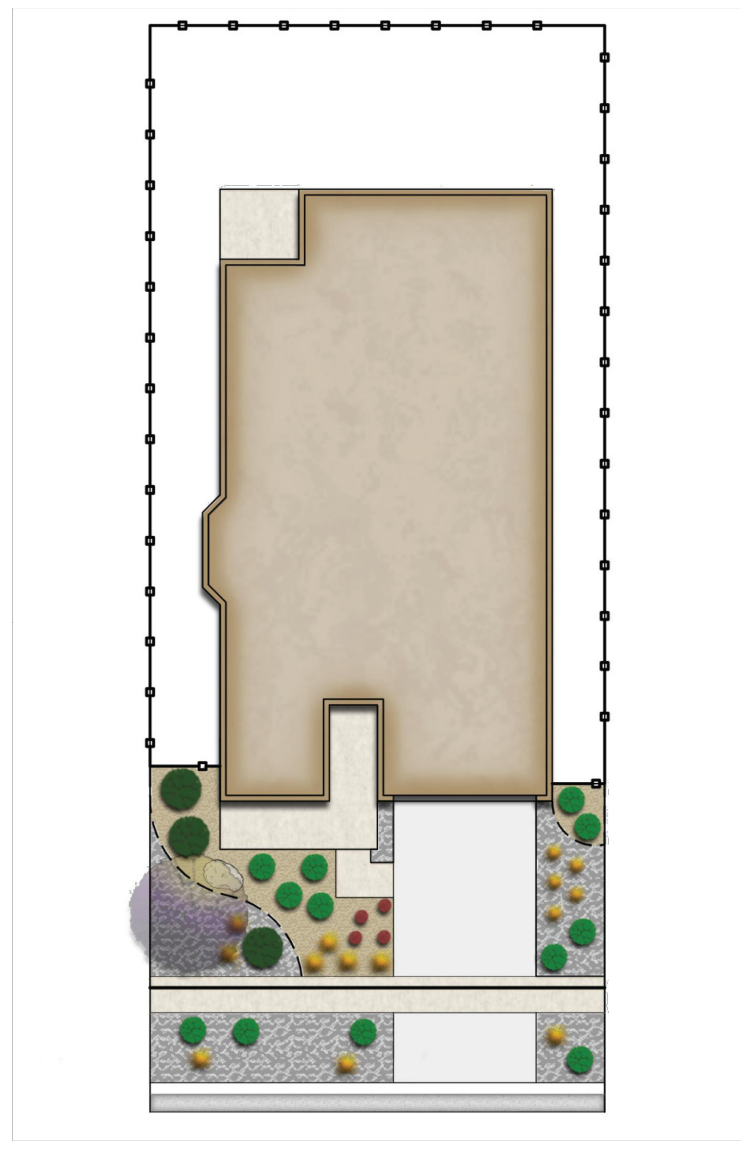
GVR-E Filing 15 Front Yard Landscape Typical
Single Family Mid-Block Lot Type 2 (50'-60' x 110')

terraco design
Not to Scale
July 2022
A2

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk

- Legend
- Steel Edger
 - Accent Boulder Minimum Size: 24"x 24" x 24"
 - Cedar Mulch
 - Rock Mulch

Plant Type	Size	Qty.
Ornamental Tree	2.0" Cal	1
Shrubs	#5 Cont	15
Perennials	#1 Cont	4
Front Yard Grasses	#1 Cont	11
Curbside Grasses	#5 Cont	3



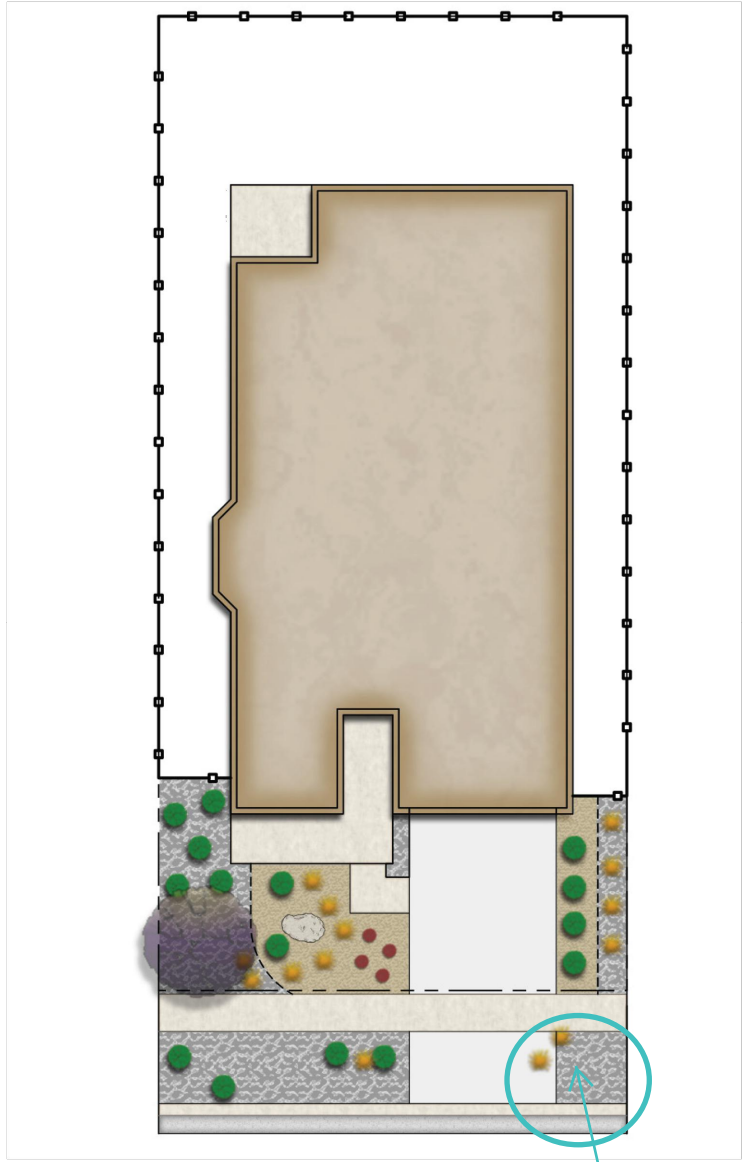
GVR-E Filing 15 Front Yard Landscape Typical
Single Family Mid-Block Lot Type 3 (50'-60' x 110')

terraco design
Not to Scale
July 2022
A3

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk

- Legend
- Steel Edger
 - Accent Boulder Minimum Size: 24"x 24" x 24"
 - Cedar Mulch
 - Rock Mulch

Plant Type	Size	Qty.
Ornamental Tree	2.0" Cal	1
Shrubs	#5 Cont	15
Perennials	#1 Cont	4
Front Yard Grasses	#1 Cont	11
Curbside Grasses	#5 Cont	3



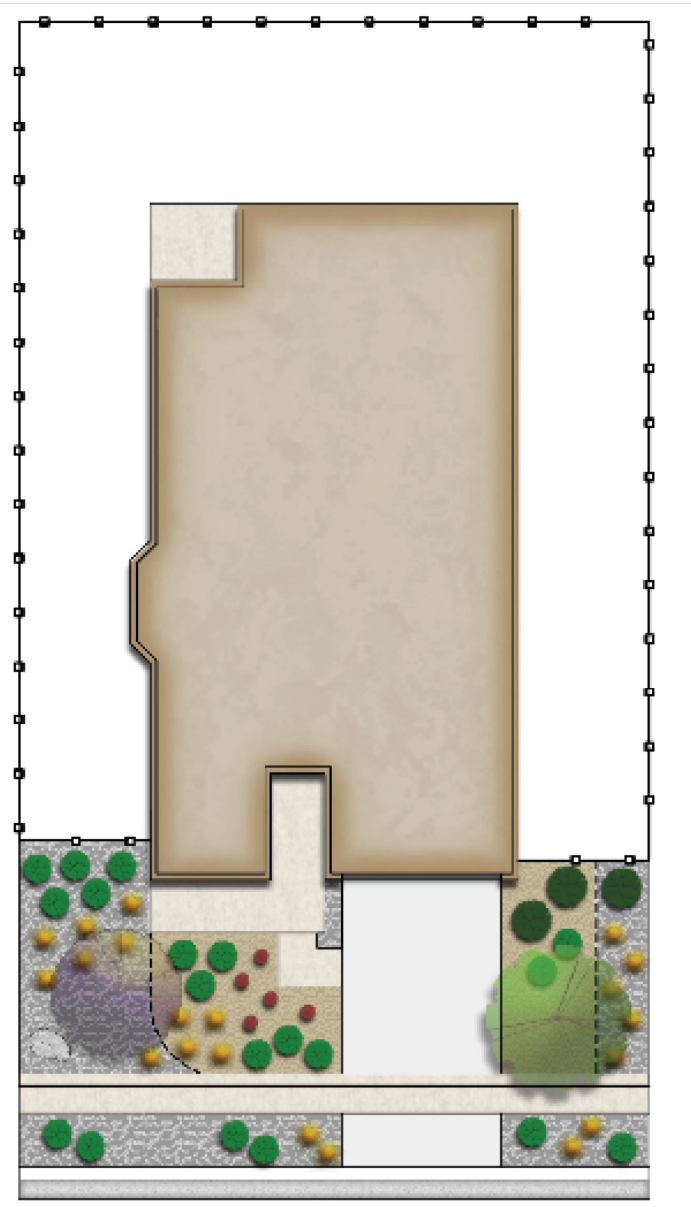
GVR-E Filing 15 Front Yard Landscape Typical
Single Family Mid-Block Lot Type 4 (50'-60' x 110')

terraco design
Not to Scale
July 2022
A4

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk

- Legend
- Steel Edger
 - Accent Boulder Minimum Size: 24"x 24" x 24"
 - Cedar Mulch
 - Rock Mulch

Plant Type	Size	Qty.
Columnar Shade Tree	2.5" Cal	1
Ornamental Tree	2.0" Cal	1
Shrubs	#5 Cont	22
Perennials	#1 Cont	5
Front Yard Grasses	#1 Cont	16
Curbside Grasses	#5 Cont	4



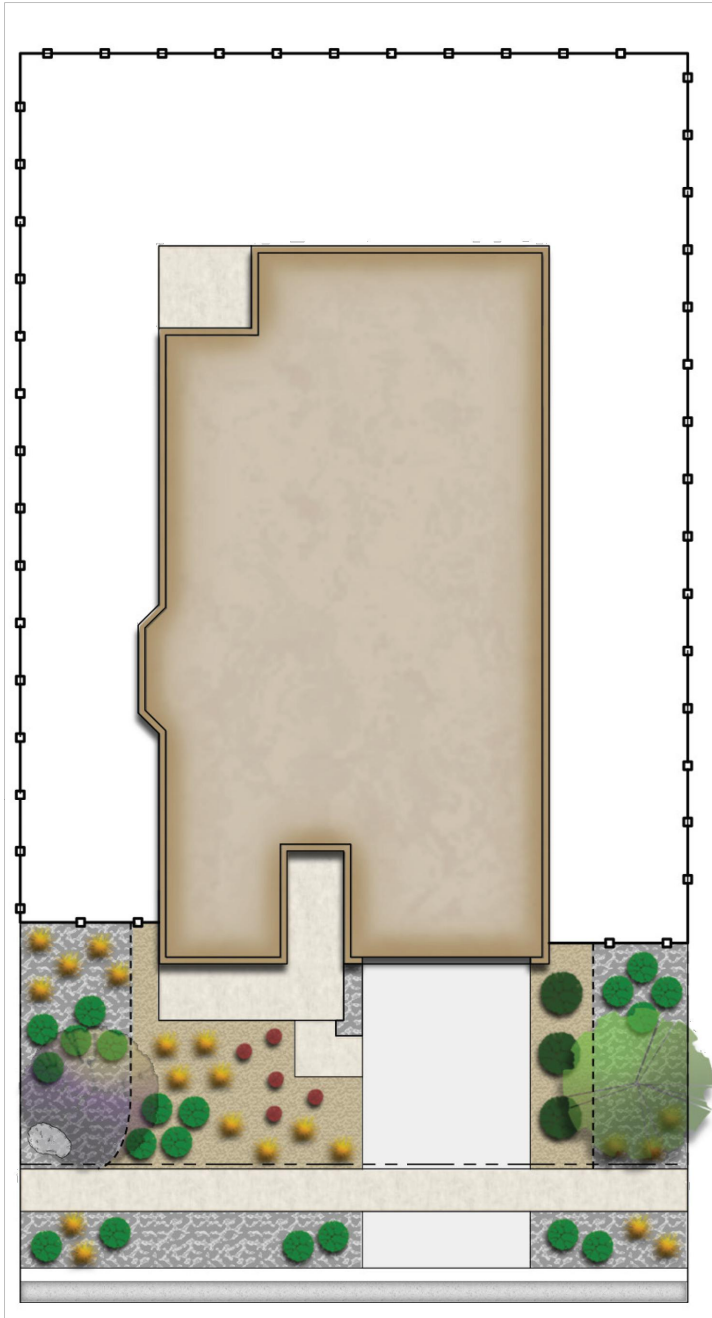
GVR-E Filing 15 Front Yard Landscape Typical
Single Family Large Mid-Block Lot Type 1 (60'-70' x 110')

terraco design
Not to Scale
July 2022
B1

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk

- Legend
- Steel Edger
 - Accent Boulder Minimum Size: 24"x 24" x 24"
 - Cedar Mulch
 - Rock Mulch

Plant Type	Size	Qty.
Columnar Shade Tree	2.5" Cal	1
Ornamental Tree	2.0" Cal	1
Shrubs	#5 Cont	22
Perennials	#1 Cont	5
Front Yard Grasses	#1 Cont	16
Curbside Grasses	#5 Cont	4



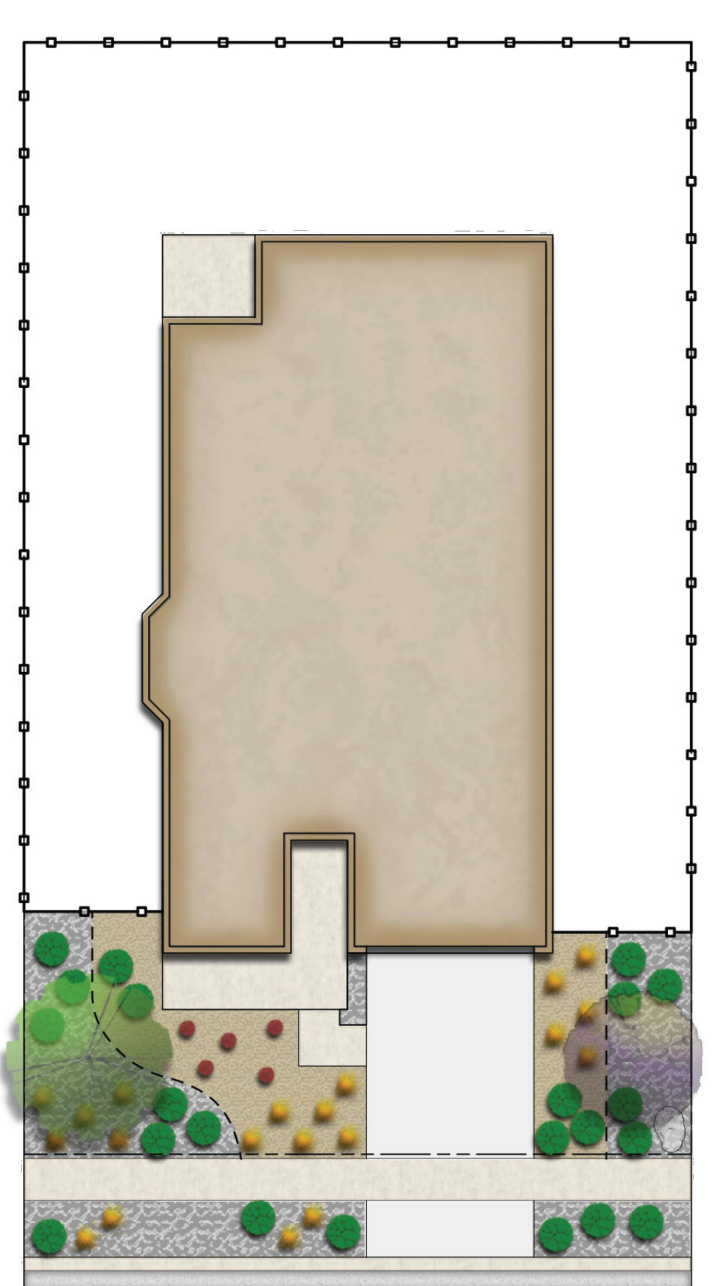
GVR-E Filing 15 Front Yard Landscape Typical
Single Family Large Mid-Block Lot Type 2 (60'-70' x 110')

terraco design
Not to Scale
July 2022
B2

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk

- Legend
- Steel Edger
 - Accent Boulder Minimum Size: 24"x 24" x 24"
 - Cedar Mulch
 - Rock Mulch

Plant Type	Size	Qty.
Columnar Shade Tree	2.5" Cal	1
Ornamental Tree	2.0" Cal	1
Shrubs	#5 Cont	22
Perennials	#1 Cont	5
Front Yard Grasses	#1 Cont	16
Curbside Grasses	#5 Cont	4



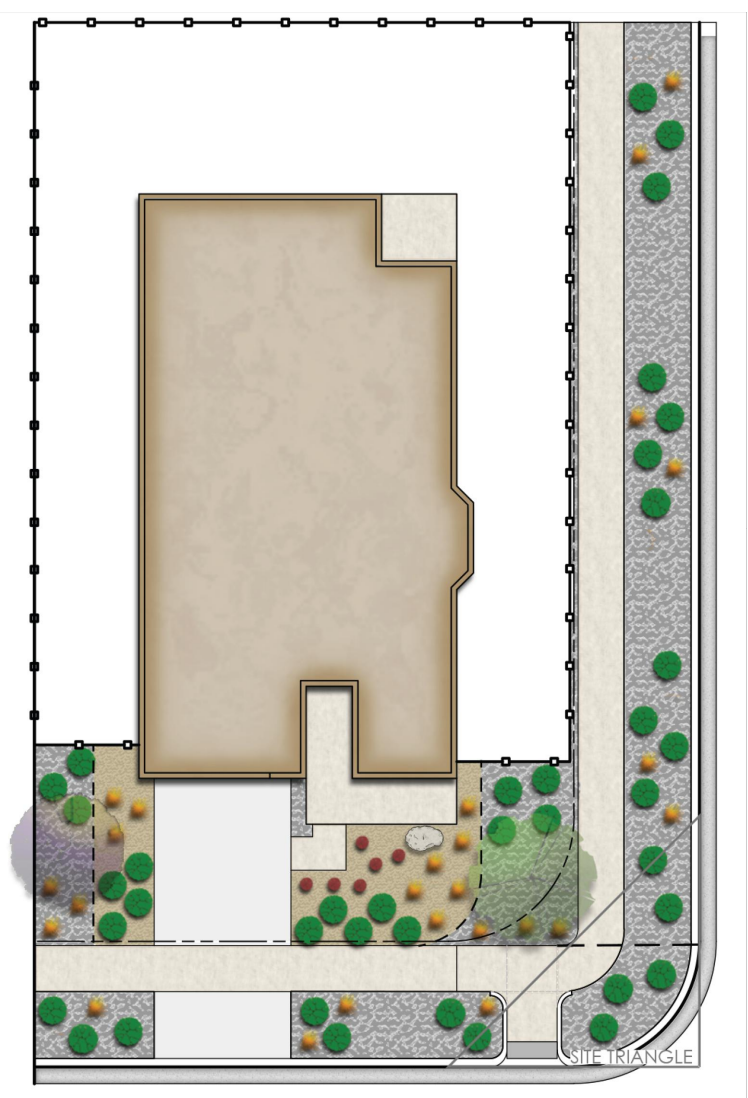
GVR-E Filing 15 Front Yard Landscape Typical
Single Family Large Mid-Block Lot Type 3 (60'-70' x 110')

terraco design
Not to Scale
July 2022
B3

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk

- Legend
- Steel Edger
 - Accent Boulder Minimum Size: 24"x 24" x 24"
 - Cedar Mulch
 - Rock Mulch

Plant Type	Size	Qty.
Columnar Shade Tree	2.5" Cal	1
Ornamental Tree	2.0" Cal	1
Front Yard Shrubs	#5 Cont	16
Front Yard Perennials	#1 Cont	6
Front Yard Grasses	#1 Cont	15
Front Curbside Landscape Shrubs	#5 Cont	10
Front Curbside Landscape Grasses	#5 Cont	4
Side Curbside Landscape Shrubs	#5 Cont	13
Side Curbside Landscape Grasses	#5 Cont	6



GVR-E Filing 15 Front Yard Landscape Typical
Single Family Corner Lot Type 1 (60'-70' x 110')

terraco design
Not to Scale
July 2022
C1

NOT FOR CONSTRUCTION

INDIVIDUAL WATER WISE EXHIBIT

SHEET NUMBER

WW.3

SHEET34 OF 36

August 31, 2022

GREEN VALLEY RANCH EAST FILING 15
AURORA, COLORADO
LANDSCAPE PLANS

PROJECT NAME



SHEET TITLE

SHEET NUMBER

WW.3

SHEET34 OF 36

August 31, 2022



10200 E. Girard Ave. Ste A-314
Denver, CO 80231
ph: 303.632.8867

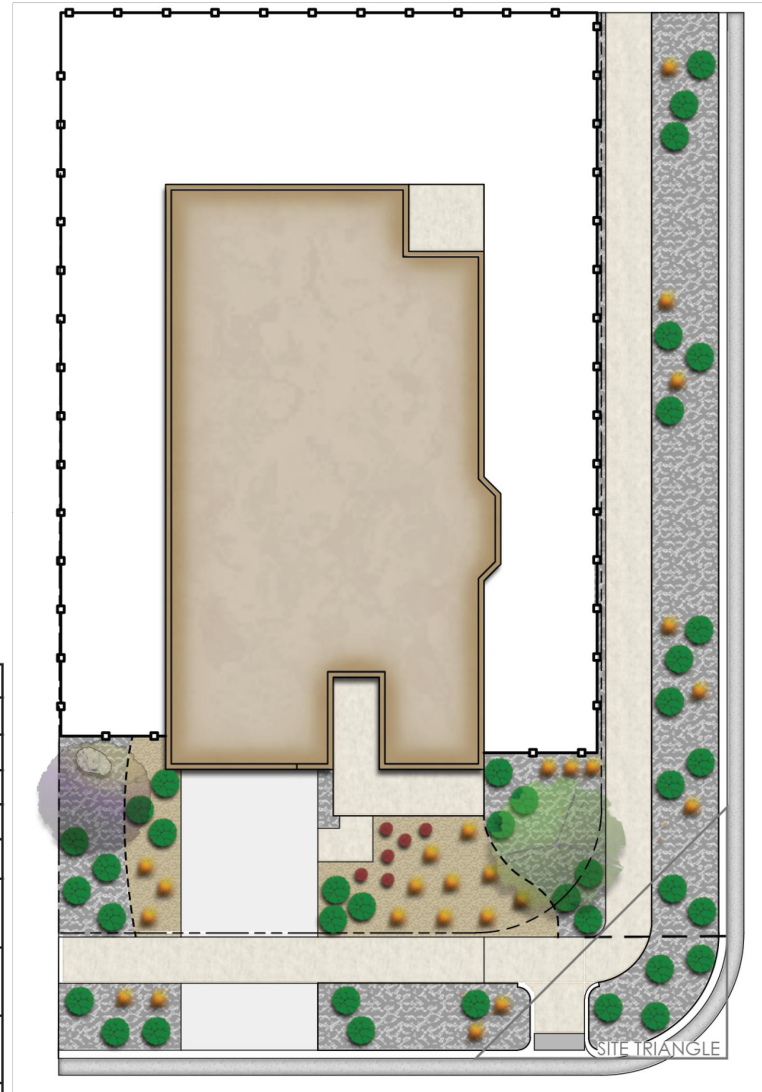
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- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk



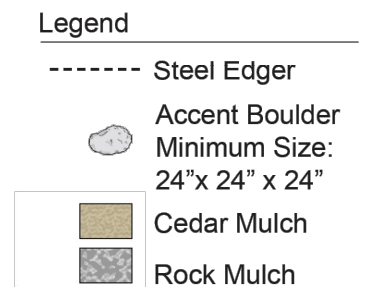
Plant Schedule

Plant Type	Size	Qty.
Columnar Shade Tree	2.5" Cal	1
Ornamental Tree	2.0" Cal	1
Front Yard Shrubs	#5 Cont	16
Front Yard Perennials	#1 Cont	6
Front Yard Grasses	#1 Cont	15
Front Curbside Landscape Shrubs	#5 Cont	10
Front Curbside Landscape Grasses	#5 Cont	4
Side Curbside Landscape Shrubs	#5 Cont	13
Side Curbside Landscape Grasses	#5 Cont	6



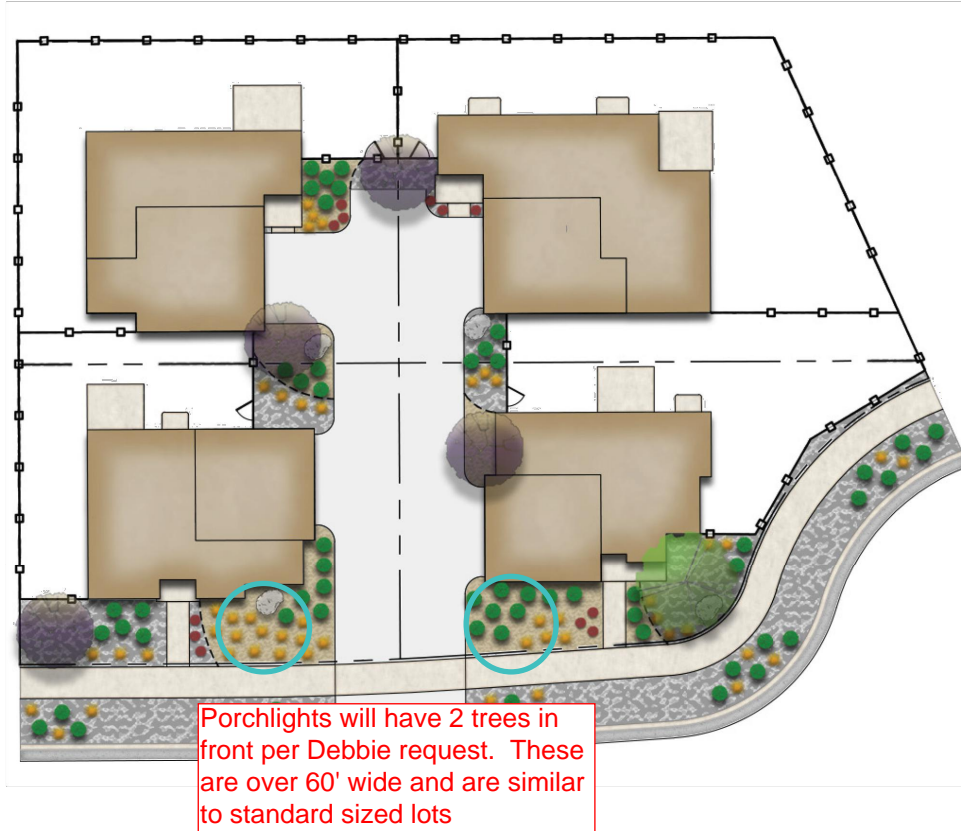
GVR-E Filing 15 Front Yard Landscape Typical
Single Family Corner Lot Type 2 (60'-70' x 110')

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk



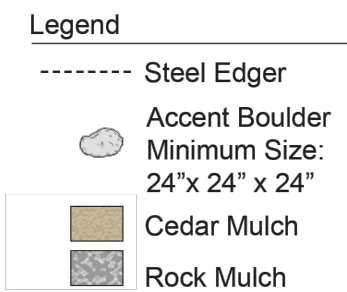
Plant Schedule

Plant Type	Size	Qty.
Columnar Shade Tree	2.5" Cal	1
Ornamental Tree	2.0" Cal	4
Shrubs	#5 Cont	59
Perennials	#1 Cont	12
Front Yard Grasses	#1 Cont	39
Curbside Grasses	#5 Cont	13



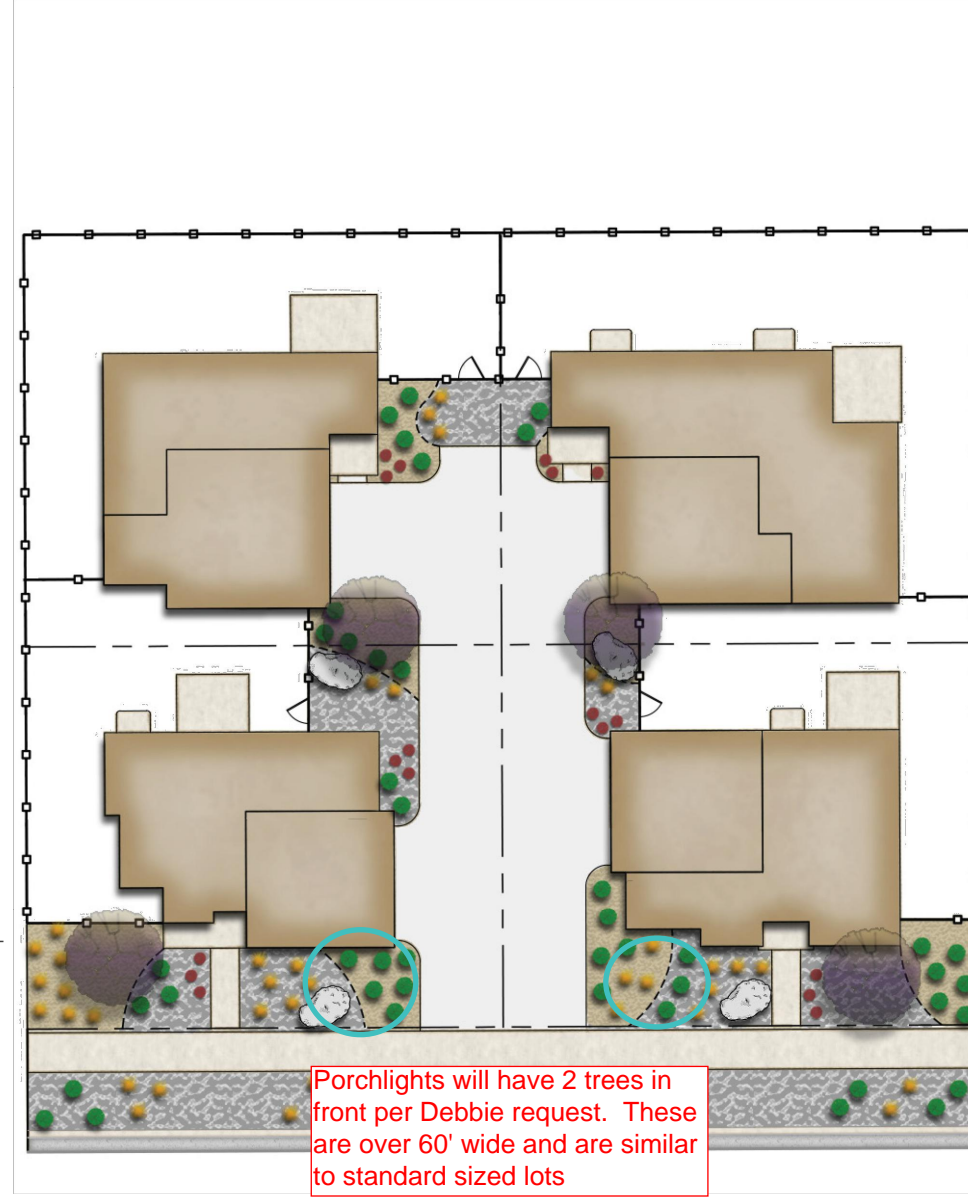
GVR-E Filing 15 Front Yard Landscape Typical
Porchlight 4-Pack Mid Block Extra Large Lot Type 1

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk



Plant Schedule

Plant Type	Size	Qty.
Ornamental Tree	2.0" Cal	4
Shrubs	#5 Cont	47
Perennials	#1 Cont	18
Front Yard Grasses	#1 Cont	30
Curbside Grasses	#5 Cont	9



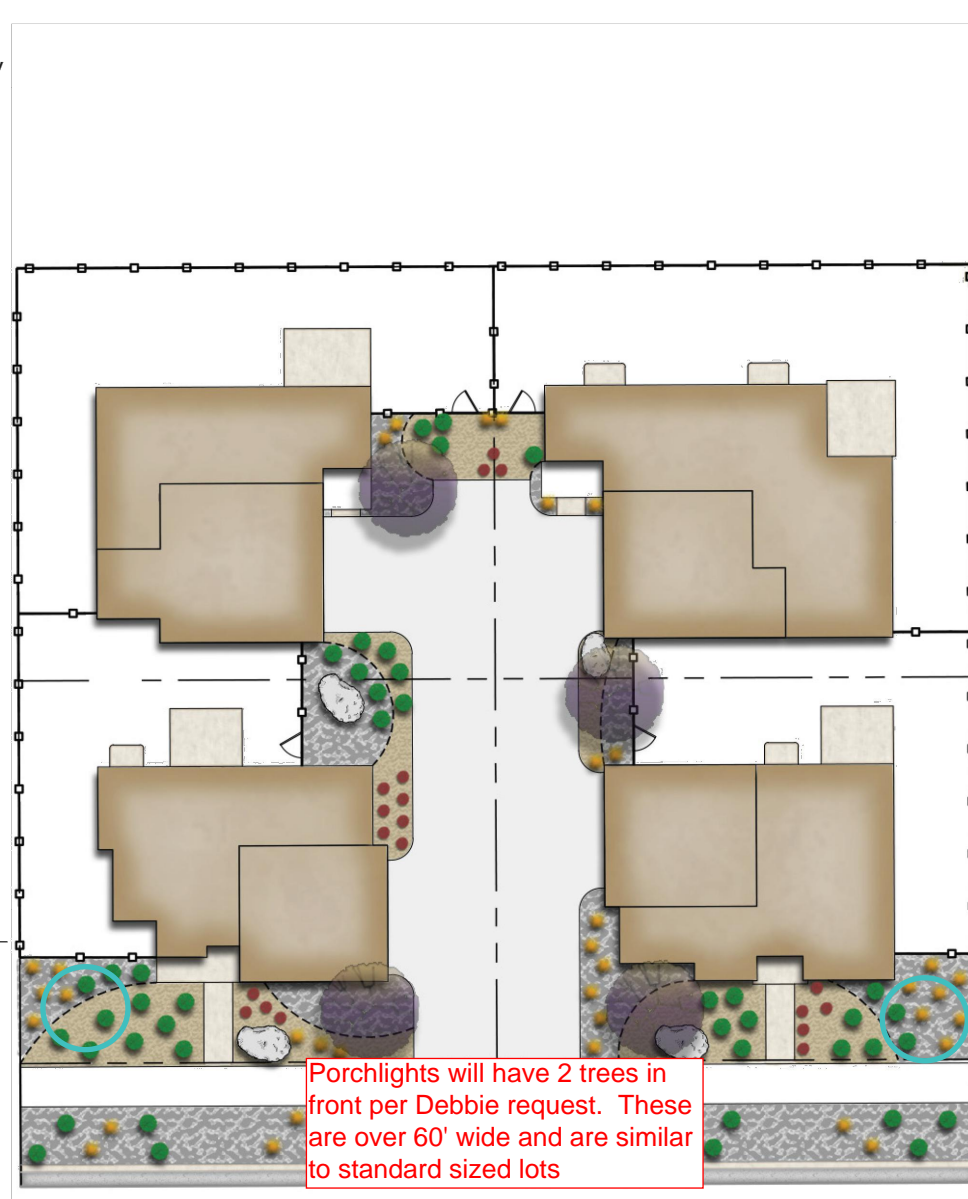
GVR-E Filing 15 Front Yard Landscape Typical
Porchlight 4-Pack Mid Block Lot Type 1

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk



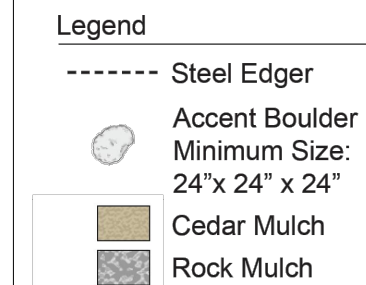
Plant Schedule

Plant Type	Size	Qty.
Ornamental Tree	2.0" Cal	4
Shrubs	#5 Cont	47
Perennials	#1 Cont	18
Front Yard Grasses	#1 Cont	30
Curbside Grasses	#5 Cont	7



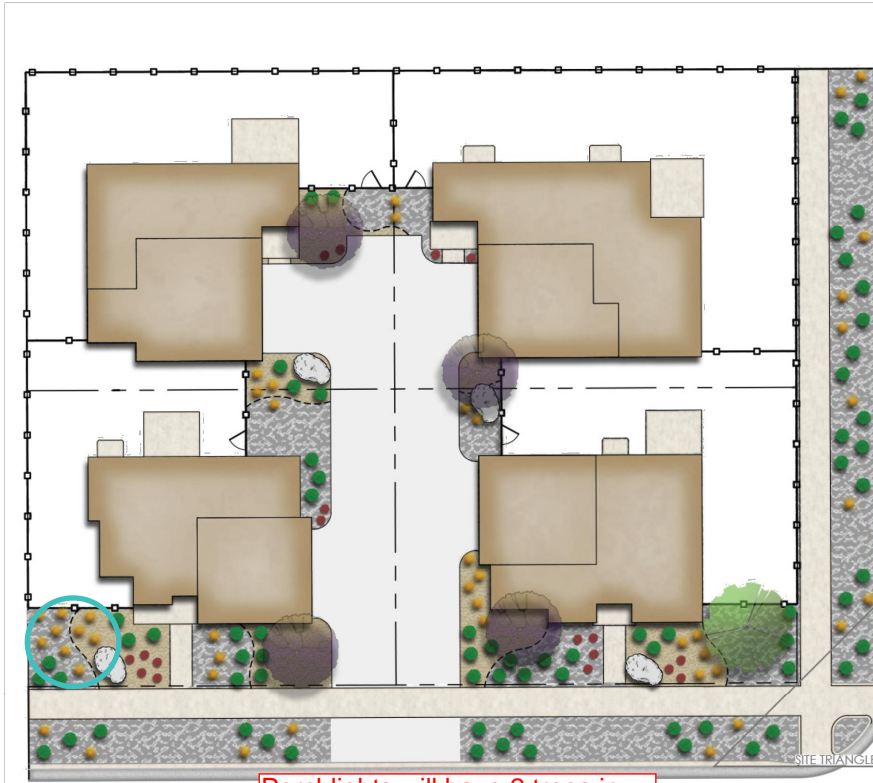
GVR-E Filing 15 Front Yard Landscape Typical
Porchlight 4-Pack Mid Block Lot Type 2

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk



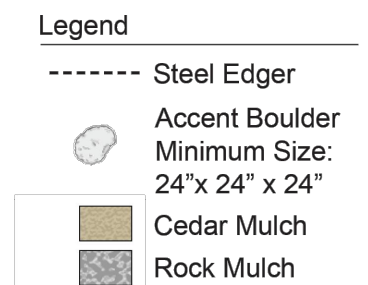
Plant Schedule

Plant Type	Size	Qty.
Columnar Shade Tree	2.5" Cal	1
Ornamental Tree	2.0" Cal	4
Front Yard Shrubs	#5 Cont	36
Front Yard Perennials	#1 Cont	18
Front Yard Grasses	#1 Cont	30
Front Curbside Landscape Shrubs	#5 Cont	16
Front Curbside Landscape Grasses	#5 Cont	6
Side Curbside Landscape Shrubs	#5 Cont	19
Side Curbside Landscape Grasses	#5 Cont	9



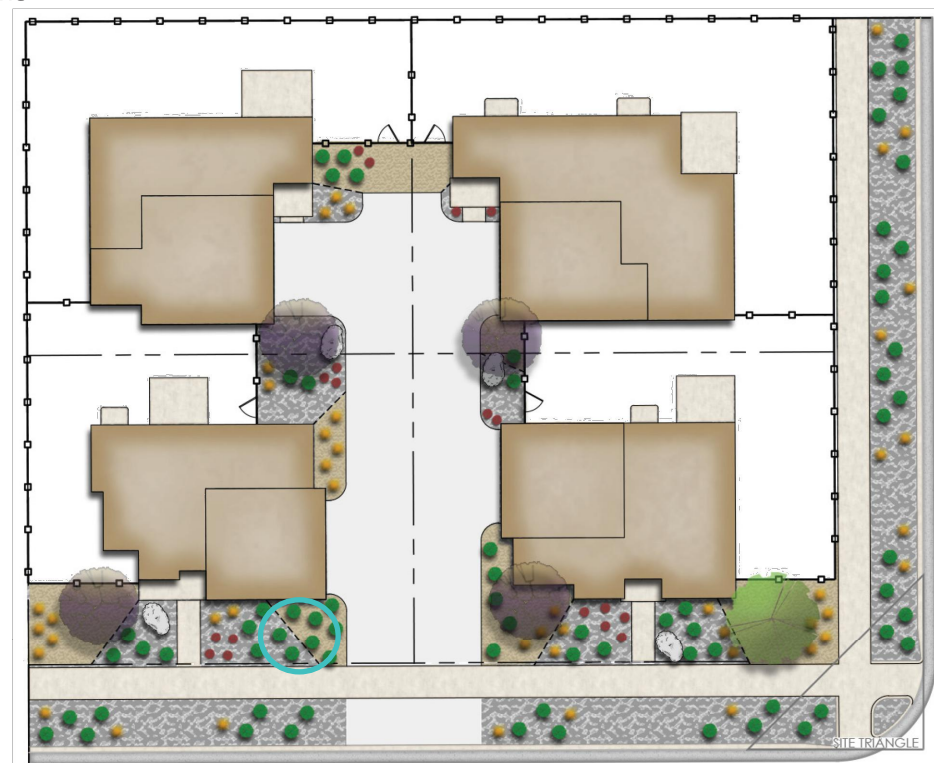
GVR-E Filing 15 Front Yard Landscape Typical
Porchlight 4-Pack Corner Lot Type 1

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk



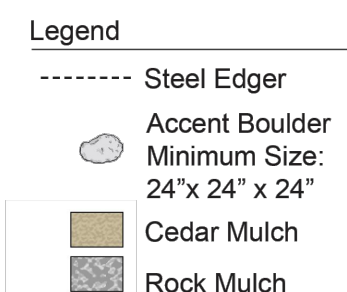
Plant Schedule

Plant Type	Size	Qty.
Columnar Shade Tree	2.5" Cal	1
Ornamental Tree	2.0" Cal	4
Front Yard Shrubs	#5 Cont	36
Front Yard Perennials	#1 Cont	18
Front Yard Grasses	#1 Cont	30
Front Curbside Landscape Shrubs	#5 Cont	16
Front Curbside Landscape Grasses	#5 Cont	6
Side Curbside Landscape Shrubs	#5 Cont	19
Side Curbside Landscape Grasses	#5 Cont	9



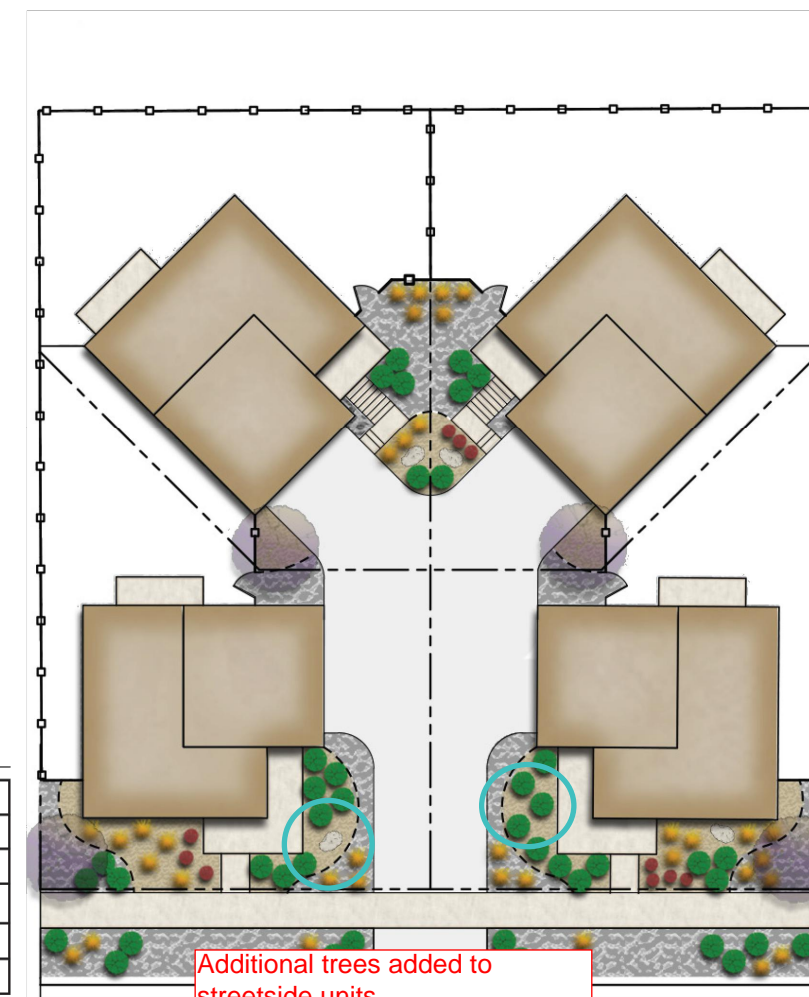
GVR-E Filing 15 Front Yard Landscape Typical
Porchlight 4-Pack Corner Lot Type 2

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk



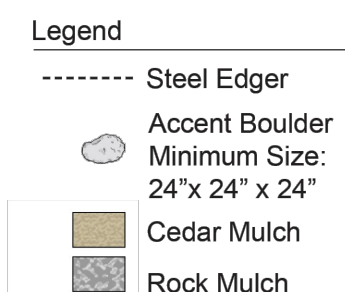
Plant Schedule

Plant Type	Size	Qty.
Ornamental Tree	2.0" Cal	4
Shrubs	#5 Cont	41
Perennials	#1 Cont	10
Front Yard Grasses	#1 Cont	29
Curbside Grasses	#5 Cont	8



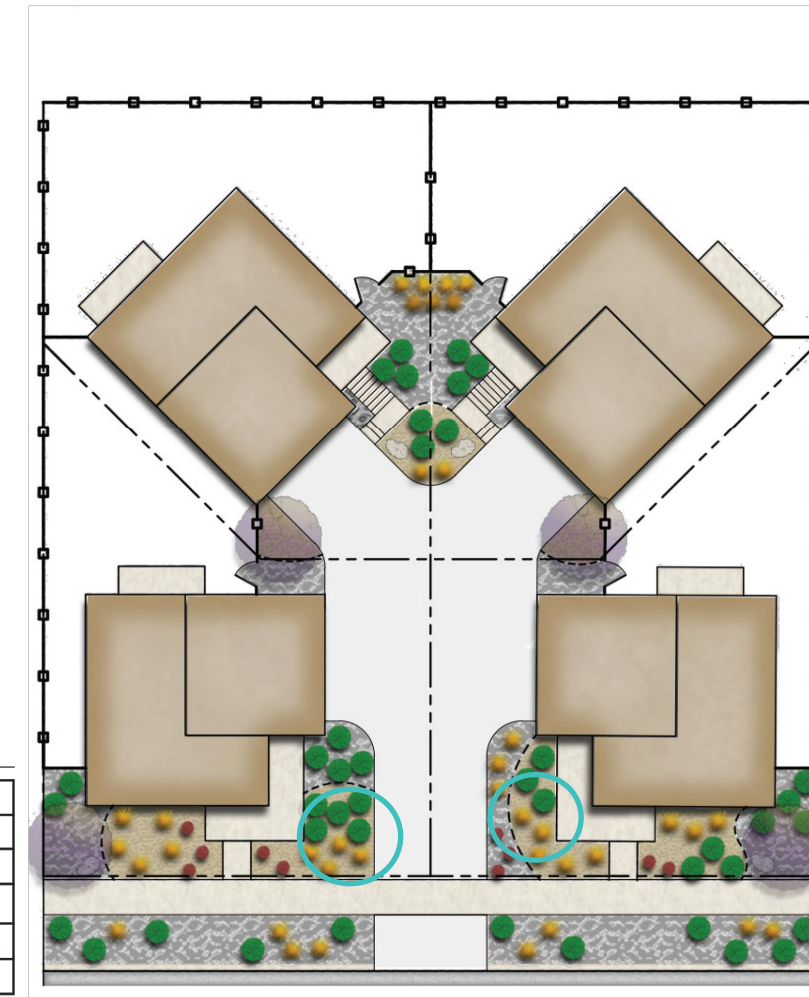
GVR-E Filing 15 Front Yard Landscape Typical
Carriage House 4-Pack Mid Block Lot Type 1

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk



Plant Schedule

Plant Type	Size	Qty.
Ornamental Tree	2.0" Cal	4
Shrubs	#5 Cont	41
Perennials	#1 Cont	10
Front Yard Grasses	#1 Cont	29
Curbside Grasses	#5 Cont	8



GVR-E Filing 15 Front Yard Landscape Typical
Carriage House 4-Pack Mid Block Lot Type 2

NOT FOR CONSTRUCTION

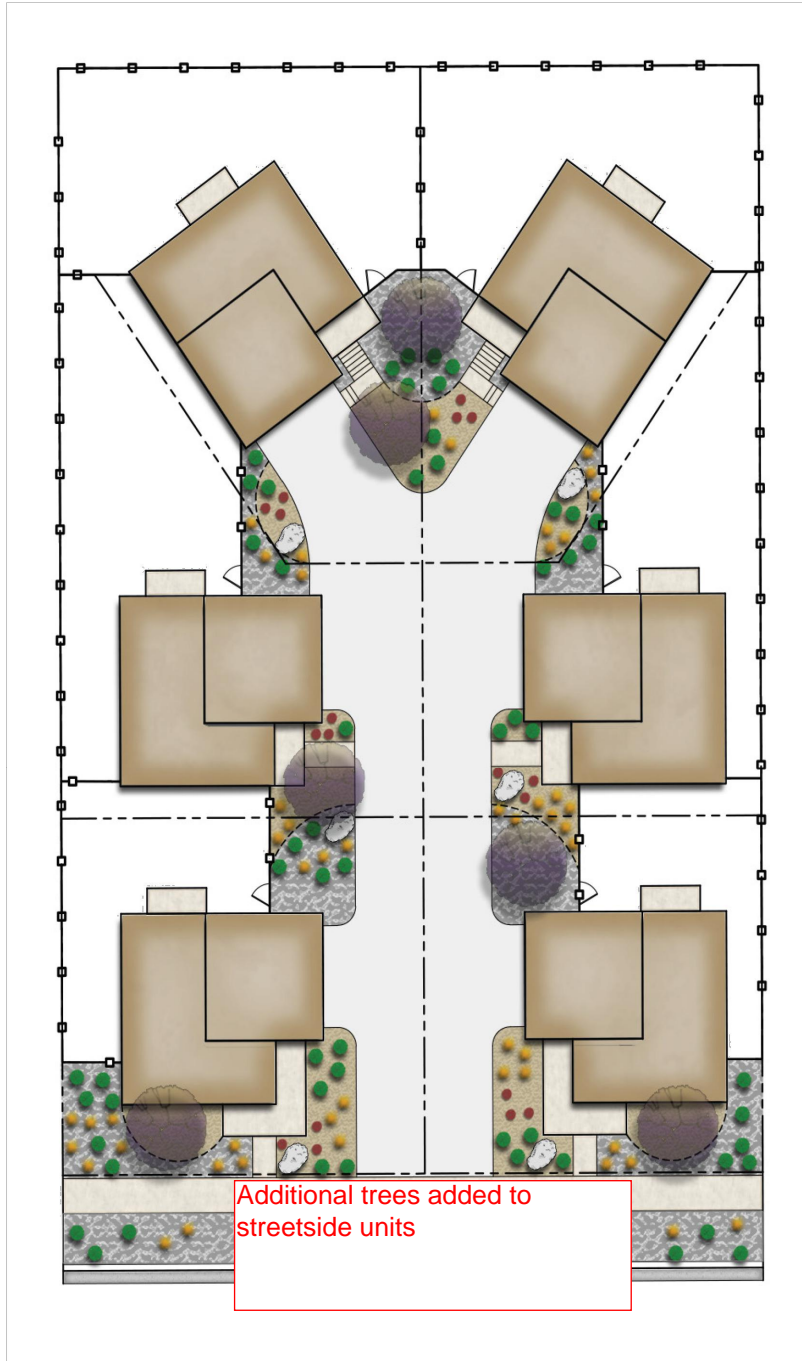
p:\oakwood master folder\gvr east-current\ifiling 15\cod\submittals\gvr f.1.5 site plan\1.1.sheets\1.1.5 individual irrigation rebates.dwg

- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk

- Legend
- Steel Edger
 - Accent Boulder
Minimum Size:
24"x 24" x 24"
 - Cedar Mulch
 - Rock Mulch

Plant Schedule

Plant Type	Size	Qty.
Omamental Tree	2.0" Cal	6
Shrubs	#5 Cont	61
Perennials	#1 Cont	18
Front Yard Grasses	#1 Cont	45
Curbside Grasses	#5 Cont	8



GVR-E Filing 15 Front Yard Landscape Typical
Carriage House 6-Pack Mid Block Lot Type 2

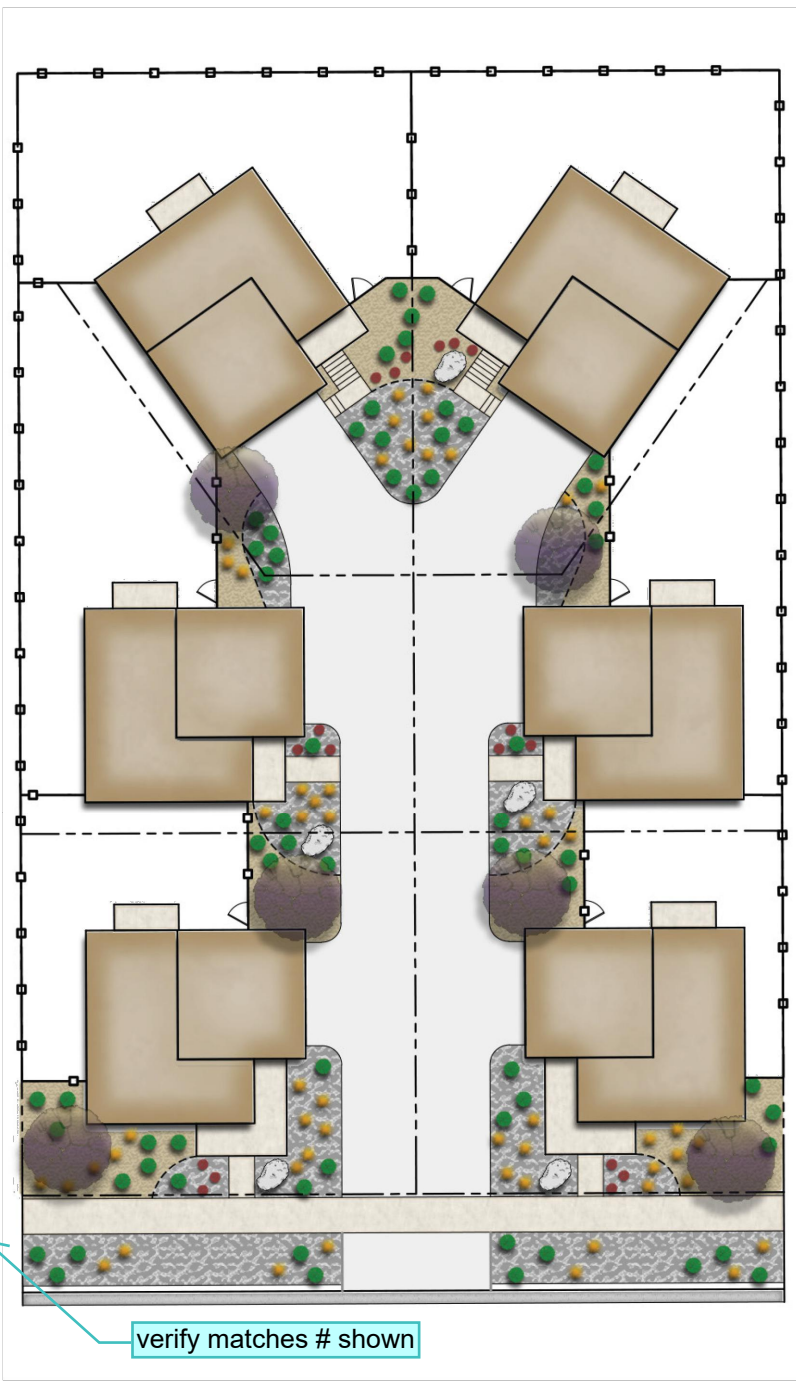


- Note:
- Exact placement of plant material will vary
 - All curb side landscape understory shall be #5 containers
 - Refer to Site Plans for curb side tree locations and species
 - Fencing shall be located a minimum of 18" behind the sidewalk

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24"x 24" x 24"
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GVR-E Filing 15 Front Yard Landscape Typical
Carriage House 6-Pack Mid Block Lot Type 2



NOT FOR CONSTRUCTION

INDIVIDUAL
WATER WISE
EXHIBIT

SHEET NUMBER

WW.5

SHEET36 OF 36

August 31, 2022



PROJECT NAME



GREEN VALLEY RANCH EAST FILING 15
AURORA, COLORADO
LANDSCAPE PLANS

SHEET TITLE

Per pre-app responses, interim evaluation was provided in GVRE Filings 6, 7, and 10. However, per pre-app notes, a build-out (short range) scenario is to be evaluated for Area 8 & 9. This would also satisfy any evaluation of interim roadway networks planned near this development

Pre-app notes, the E-470 and 38th Ave ramps are to be included in the analysis

Please include references to Filings 6, 7, and 10 in this study. Please discuss the contents and relevance to this study

Per conversation with Carl Harline on 12/20/2022 - an interim evaluation and E470/38th Avenue do not need to be added to this study.

Filing 7 is already explicitly addressed in the background section. Filing 6 and 10 will only add through traffic at the study intersections and is included within other studies - no reference will be added.

Prepared for:

Oakwood Homes
4908 Tower Rd.
Denver, CO 80249

Prepared by:

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Appendix A. Trip Generation

Appendix B. Long Range Future Background LOS

Appendix C. Long Range Future Total Traffic LOS

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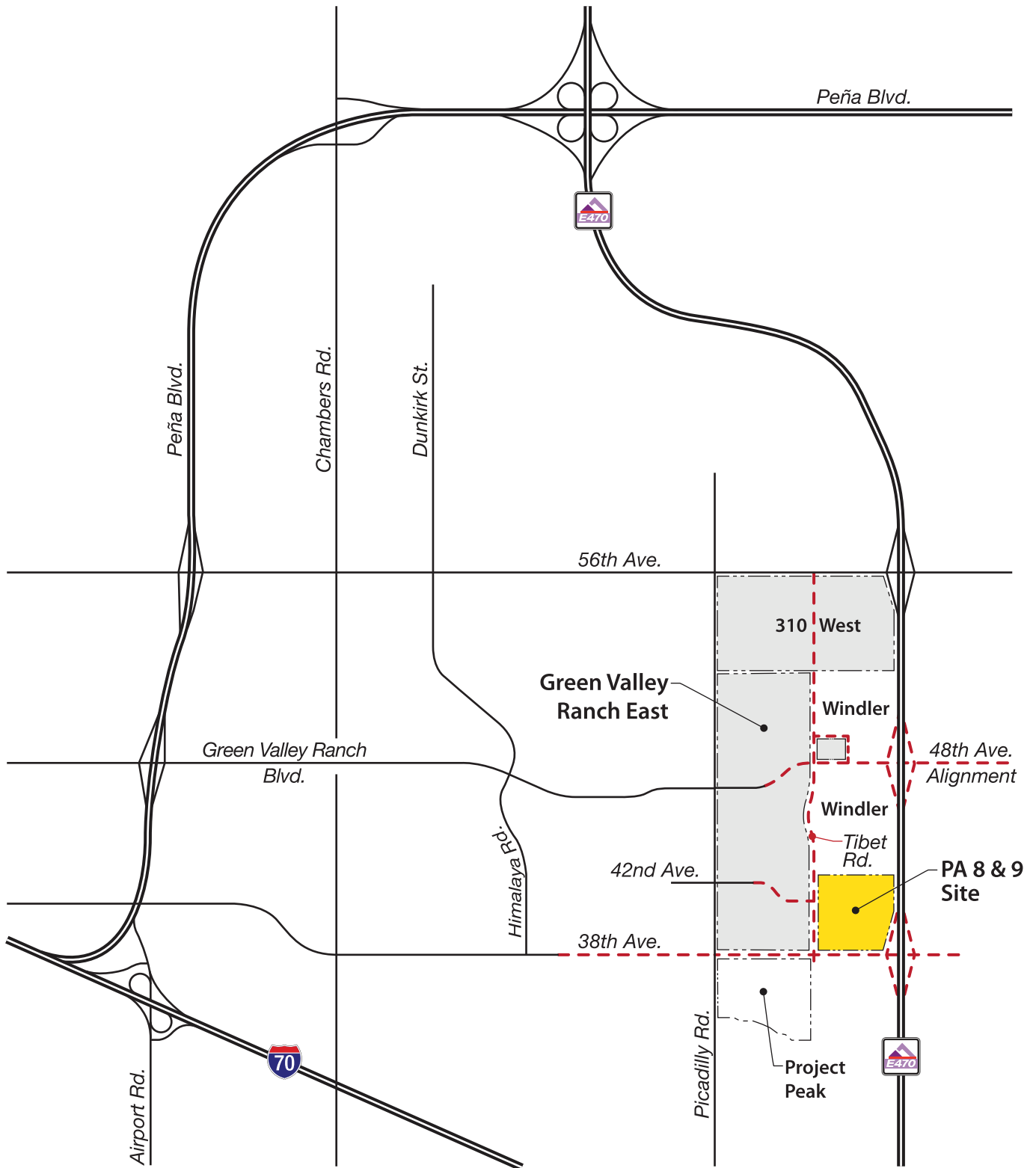
I. INTRODUCTION

Green Valley Ranch East Planning Areas 8 & 9 include a total of 568 single-family dwelling units. As shown on **Figure 1**, the site is located in the northeast quadrant of the future 38th Avenue/Tibet Road intersection in Aurora, Colorado. Vehicular access would be via connection to Tibet Road at the 39th, 42nd, and 45th Avenue (approximate) future alignments. These accesses would be full-movement (unsignalized), consistent with previous planning efforts at Green Valley Ranch East. A local, right-in/right-out (RIRO) connection to 38th Avenue is also planned. **Figure 2** depicts the current site plan concept.

Previous traffic analyses conducted for Green Valley Ranch East include the following:

- *Transportation Analysis, Green Valley Ranch East*, Felsburg Holt & Ullevig, updated May 2020
- *Traffic Impact Study, Green Valley Ranch East CSP 3*, updated May 2020
- *Traffic Impact Study, Green Valley Ranch East Filing 7*, updated May 2020

The proposed development is in general conformance with the *Transportation Analysis, Green Valley Ranch East* master report, which assumed approximately 620 single family homes within Planning Areas 8 & 9. By incorporating the above documents, as well as more recent analyses conducted within the surrounding area, this traffic study identifies the potential impacts specific to the residential development in Planning Areas 8 & 9 and identifies the resultant roadway and traffic control improvements required. Because the adjacent roadway system has yet to be constructed, this analysis focuses on the Long-Range (year 2040) planning horizon.





II. EXISTING CONDITIONS

II.A. Land Use

Green Valley Ranch Planning Areas 8 & 9 are currently vacant. E-470 forms the eastern site boundary. Lands to the west in Green Valley Ranch East are currently under development with residential uses. Lands to the south include Project Peak, an industrial development.

II.B. Roadways

The primary existing study area includes:

- **38th Avenue.** This east-west roadway extends east from Tower Road to Himalaya Street as a 4-lane arterial in the City and County of Denver, and is posted with a 40 miles per hour (MPH) speed limit. To the west, 38th Avenue transitions to 40th Avenue and interchanges with Peña Boulevard. 38th Avenue is currently under construction between Himalaya Street and Project Peak, which will have access at the future Tibet Road alignment. In the future, 38th Avenue will have an interchange on E-470.
- **Tibet Road.** This planned north-south roadway will be constructed as adjacent lands develop. Tibet Road between 38th Avenue and 48th Avenue is planned as a 3-lane collector. As noted above, Project Peak (on the south side of 38th Avenue) will have vehicular access at the Tibet Road alignment.

III. PROPOSED FUTURE CONDITIONS

III.A. Trip Generation

As previously noted, the planned residential uses within Planning Areas 8 & 9 would consist of 568 single-family residential units. The proposed development is in general conformance with the planning data previously assumed for the *Transportation Analysis, Green Valley Ranch East* master report. The trip generation analysis, summarized in **Table I**, was conducted using the fitted curve equations contained in *Trip Generation*, 11th Edition, Institute of Transportation Engineers (ITE), 2021 (ITE worksheets are included in **Appendix A**).

Table I. Planning Areas 8 & 9 Trip Generation Analysis

Land Use	Quantity	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Single Family Detached Housing (I)	568 DU	4,990	95	270	365	320	190	510
I ITE Land Use Code 210 Single Family Detached Housing. Fitted curve equation results shown.								

As shown in **Table I**, the site would have a trip generation potential of about 4,990 trips per day, with 365 AM peak hour trips and 510 PM peak hour trips.

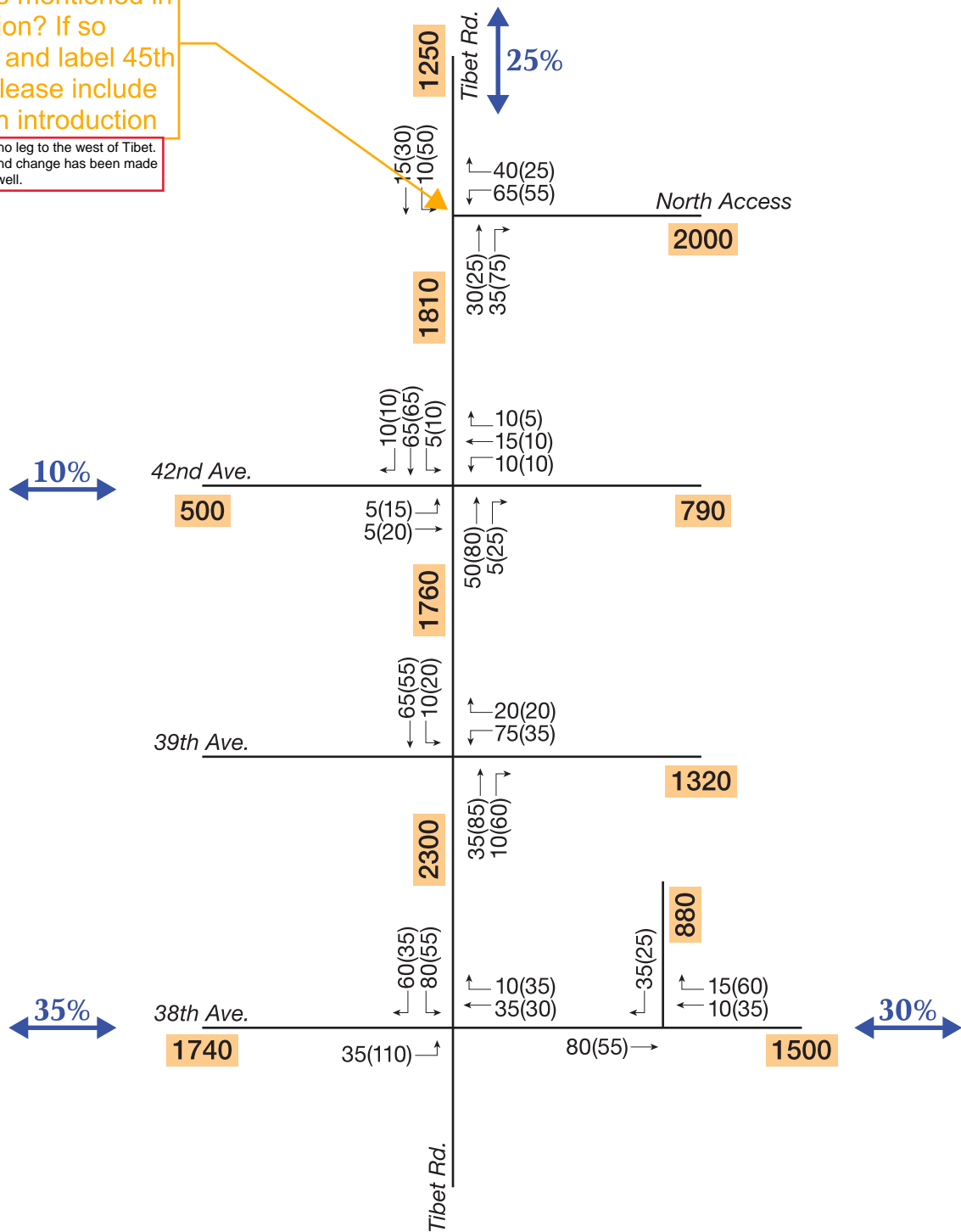
III.B. Site Trip Distribution and Site-Generated Traffic Assignment

In the future, it is projected that the adjacent study area roadway system would be built, including Tibet Road, 38th Avenue, and the E-470 interchange at 38th Avenue. The trip distribution, as depicted on **Figure 3**, is based on the location of the site relative to regional connections and on previous traffic engineering efforts at Green Valley Ranch East.

Figure 3 also shows the resultant site-generated traffic assignment. As shown, Tibet Road would carry between 1,250 and 2,300 vehicles per day (VPD) in site-related volumes. 38th Avenue would carry 1,500 to 1,740 VPD generated by the site.

Is this the location aligned with 45th Ave mentioned in the introduction? If so please show and label 45th Ave. If not, please include this access in introduction

this is future 44th ave but no leg to the west of Tibet. Will rename to 44th Ave and change has been made to introduction section as well.



LEGEND

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

XXX = Daily Traffic Volumes

XX% = Trip Distribution

Provide a more detailed information on how the volumes from these various projects and documents were used in this study. Were they averaged, added, was the most conservative used? Did the volumes on some corridors come from one or multiple document/study? What was the applied growth and what were the original volumes based off of?

addressed

IV. FUTURE CONDITIONS

IV.A. Background Traffic Conditions

For the Long Range Future scenario (year 2040), background

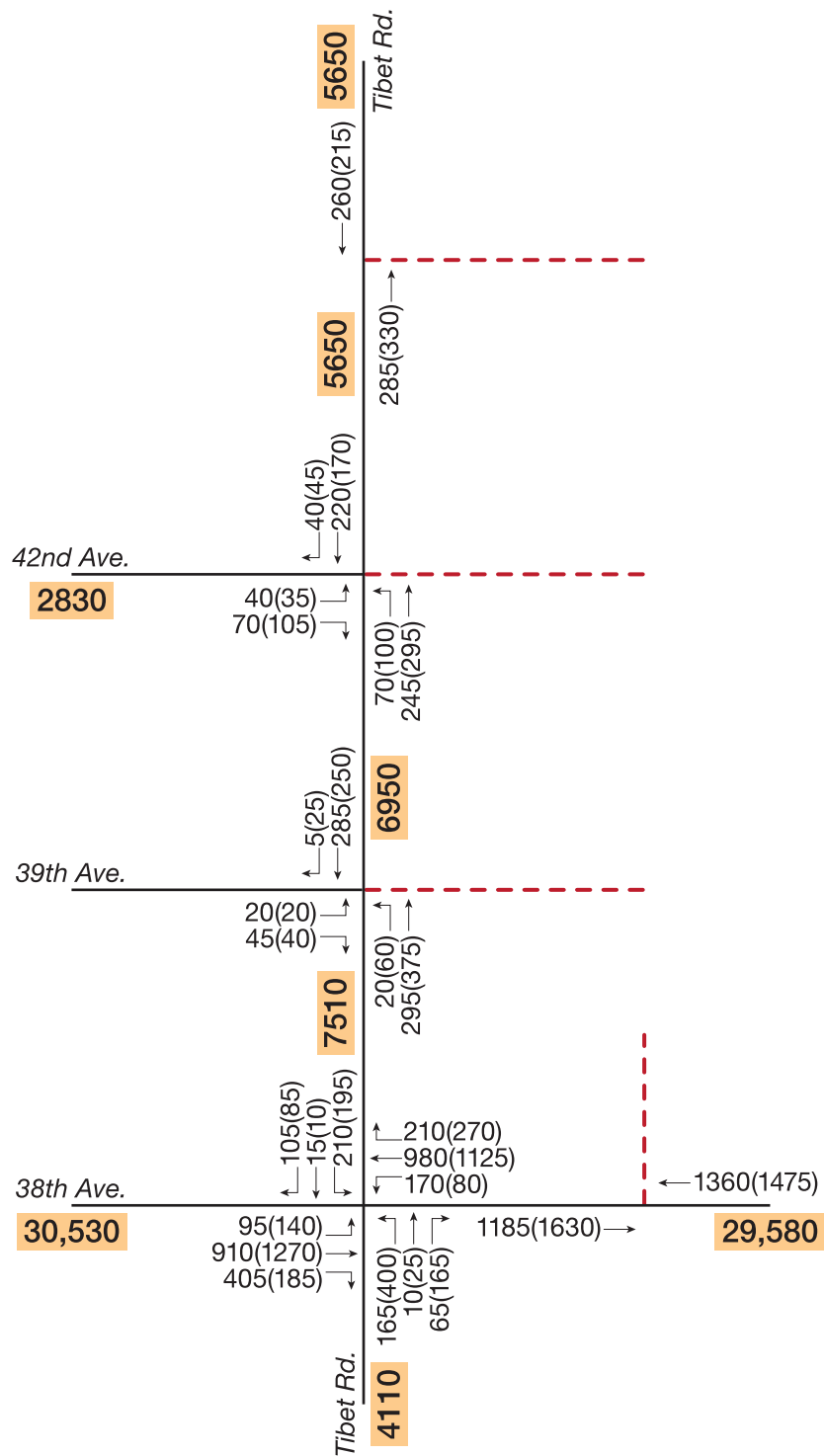
- Other Green Valley Ranch East development per the Final Development Plan (FDP) and the CSP 1, CSP 2, CSP 3, and Filing 7 Traffic Impact Studies
- Development of Project Peak, per the Traffic Impact Study for this site dated April 2019, by Kimley-Horn and Associates, Inc.
- Background growth based on the 2018 NEATS Refresh project, including anticipated development in the surrounding area, as follows:
 - The Aurora Highlands 3,500 acres east of E-470 and The Aurora Highlands 310 located at Picadilly Road and 56th Avenue.
 - Porteos, estimated to generate approximately 120,000 trips per day when built out, based on the Denver Regional Council of Governments (DRCOG) model (this master plan's traffic impact study shows more given a maximum buildout scenario).
 - Windler and Cardon properties that straddle E-470.
 - Avelon, located in the northeast quadrant of 56th Avenue and Picadilly Road. A mix of residential and commercial uses is planned for this site.
 - Painted Prairie, 1,628 acres of future mixed-use development located in the northwest quadrant of 56th Avenue and Picadilly Road.
 - Majestic (southwest of E-470 and 38th Avenue). Project Peak is a portion of this overall development.

Figure 4 illustrates the resultant Long Range Future background projections. As shown, background volumes on 38th Avenue would be approximately 29,580 to 30,530 VPD. Daily volumes on Tibet Road adjacent to Planning Areas 8 & 9 would range between about 5,650 to 7,510 VPD. These volumes are in broad agreement with the previously approved *Transportation Analysis, Green Valley Ranch East* master report.

This needs to be better defined
reasons for changes will be added.

The Long Range Future background volumes were used as the basis for intersection Level of Service (LOS) analyses, the results of which are graphically depicted on **Figure 5**. As shown, year 2040 background traffic operations are projected to remain generally acceptable at study area intersections (**Appendix B** contains LOS worksheets). The analyses assume the following improvements:

- Tibet Road would be constructed to a three-lane collector cross section with adjacent development. The projected traffic volumes along Tibet Road would remain within the general capacity of a two-lane collector roadway.
- 38th Avenue would be constructed to four-lane arterial standards. For this analysis, it is assumed that the planned interchange at E-470/38th Avenue would be constructed.
- The intersection at 38th Avenue/Tibet Street would require signalization per the Project Peak Traffic Impact Study. Dual left-turn lanes would be needed on the northbound approach at this intersection. Signalization of this intersection should be anticipated following connection of 38th Avenue across E-470.



LEGEND

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

XXX = Daily Traffic Volumes

- - - - - = Future Roadway

LEGEND

X/X = AM/PM Peak Hour Intersection
Level of Service

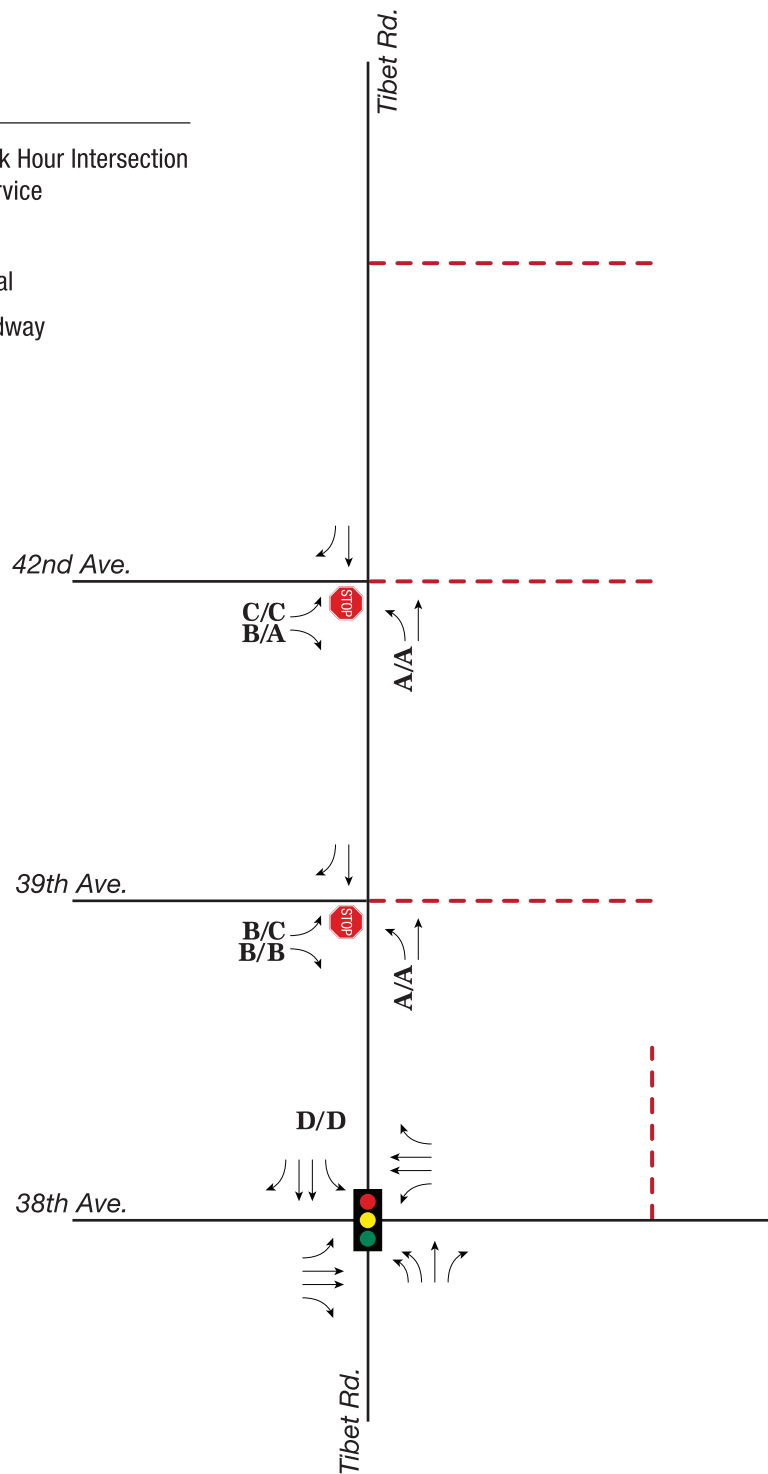


= Stop Sign



= Traffic Signal

- - - - = Future Roadway

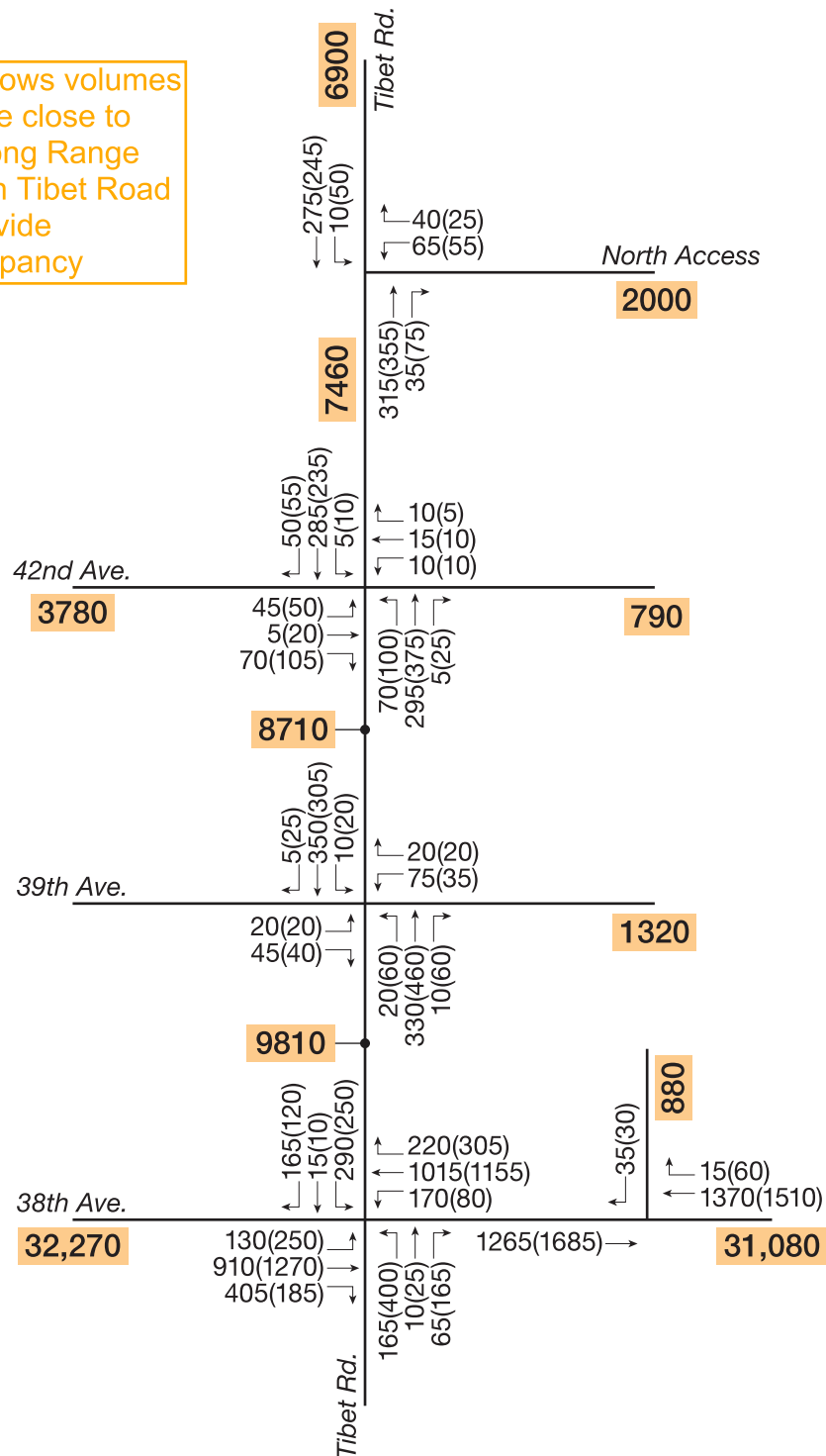


IV.B. Total Future Traffic

The site-generated traffic volumes previously shown on **Figure 3** were added to the 2040 background traffic volumes (**Figure 5**) to produce the Long Range Future total traffic volumes as illustrated on **Figure 6**. As shown, Tibet Road daily volumes would range between about 6,900 and 9,810 VPD within the study area. 38th Avenue is estimated to serve approximately 31,080 to 32,270 VPD in the vicinity of the site.

GVRE master TIS shows volumes on 42nd Avenue to be close to 10,000 ADT in the Long Range scenario. Volumes on Tibet Road are 11,000 ADT. Provide justification for discrepancy

reasons for changes will be added.



LEGEND

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

XXX = Daily Traffic Volumes

V. EVALUATION

V.A. Level of Service

The Long Range total traffic peak hour intersection operations are shown on **Figure 7 (Appendix C)** contains LOS worksheets). As shown, study area traffic operations would continue to be acceptable at the study area signalized intersections. As previously noted, the intersection at Tibet Road/38th Avenue would warrant signalization. A traffic signal at this intersection would operate at LOS D during peak time. **Table 2** provides a summary of the results.

Include overall LOS and delay
for signalized intersections

Addressed

Table 2. LOS Summary

Intersection/Movement	2040 Background		2040 Total Traffic	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
38th Ave/Tibet Road	Traffic Signal			
Northbound Left	E	E	E	E
Northbound Through	C	C	C	C
Northbound Right	C	C	C	C
Southbound Left	E	E	E	E
Southbound Through	C	C	C	D
Southbound Right	C	C	C	C
Eastbound Left	C	C	D	E
Eastbound Through	D	D	D	D
Eastbound Right	C	C	C	B
Westbound Left	D	D	D	C
Westbound Through	D	D	D	D
Westbound Right	B	B	C	C
Tibet Road/39th Ave	STOP Sign Control (EB/WB)			
Northbound Left	A	A	A	A
Southbound Left	–	–	A	A
Eastbound Left	B	C	C	D
Eastbound Through-Right	B	B	B	B
Westbound Left	–	–	C	D
Westbound Through-Right	–	–	B	B
Tibet Road/42nd Ave	STOP Sign Control (EB/WB)			
Northbound Left	A	A	A	A
Southbound Left	–	–	A	A
Eastbound Left	C	C	C	D
Eastbound Through-Right	B	A	B	B
Westbound Left	–	–	C	D
Westbound Through-Right	–	–	C	C
Tibet Road/North Access				
Southbound Left	–	–	A	A
Westbound Left	–	–	C	C
Westbound Right	–	–	B	B
38th Ave/RIRO Access				
Southbound Right	–	–	C	C

Highlight cells

not dual lefts in background condition
- not changed

Note: Highlighted cells denote dual left-turn lanes

Which

addressed

Of note, Long Range Total volumes at 38th Avenue/Tibet Road would include southbound left-turn movements approaching 300 vehicles per hour (VPH) which is the typical threshold for dual left-turn lanes. Therefore, this improvement was added to the intersection geometry in the total traffic scenario as shown on **Figure 7**. The northbound and southbound left-turns would remain at LOS E, but the per-lane queue lengths would be reduced for the southbound left-turn movement (see queue analysis in section V. E.). This improvement would also afford greater flexibility in signal timing in the future.

LEGEND

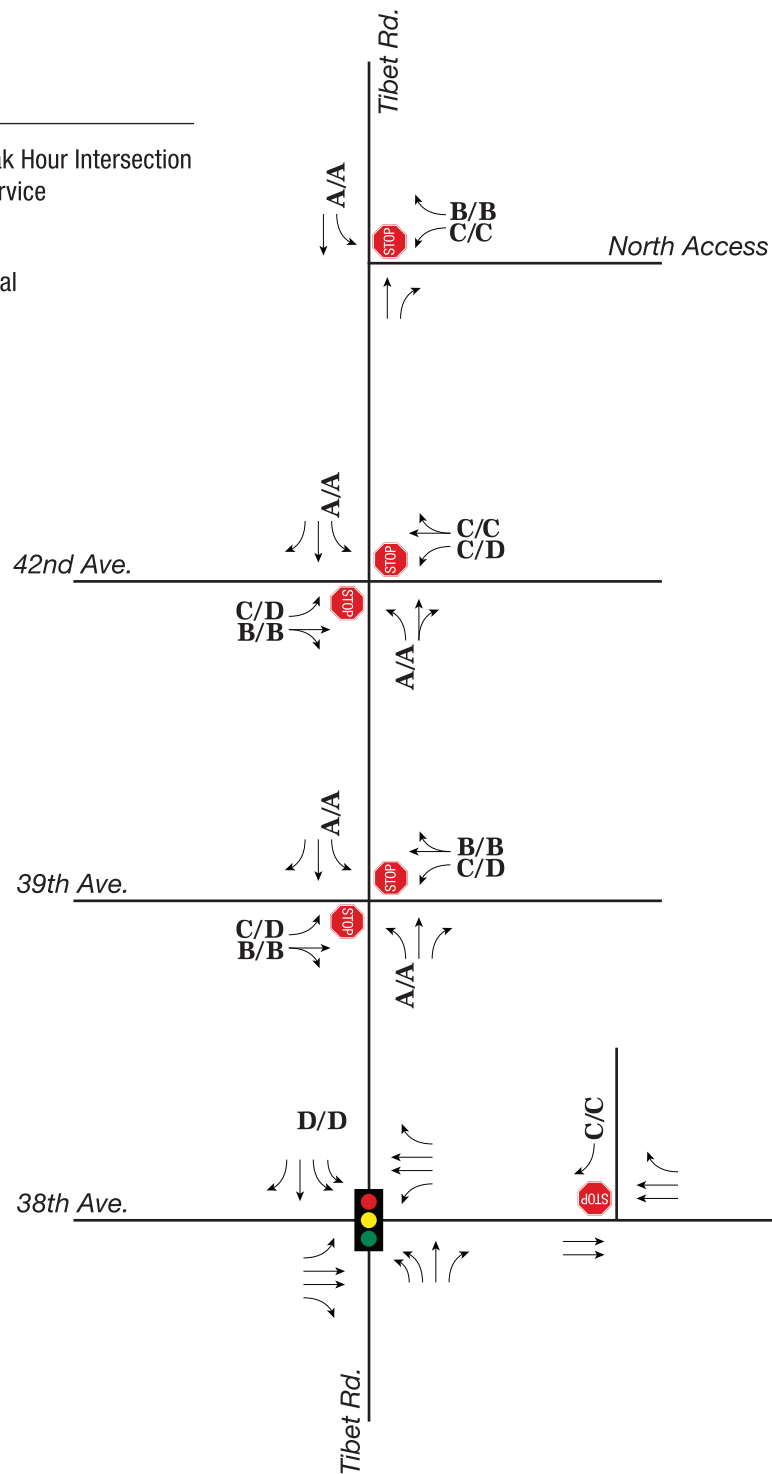
X/X = AM/PM Peak Hour Intersection
Level of Service



= Stop Sign



= Traffic Signal



The planned RRFB on Tibet Road and underpass on 38th Avenue needs to be mentioned in this section as part of a pedestrian connectivity discussion

addressed

V.B. Internal Traffic Control

At Tibet Road/42nd Avenue, traffic operations would be acceptable under STOP sign control. Per our previous traffic engineering efforts for CSP 3 and Filing 7, however, this intersection is adjacent to a future school site and could require a protected pedestrian crossing in the future. Therefore, future traffic and pedestrian conditions should be periodically monitored, and appropriate traffic control measures implemented, when warranted. Particular consideration of Warrant 5, School Crossing, would be anticipated. If signalized, the intersection would operate acceptably during peak times.

Traffic control at the internal intersections within Planning Areas 8 & 9 would be unsignalized, with STOP sign control on the minor approaches. **Figure 8** depicts the proposed internal traffic control.

V.C. Street Layout

The proposed street layout for Planning Areas 8 & 9 is generally consistent with Section 4.04.1 of the City's Roadway Design and Construction Standards, as follows:

- Arterial spacing (38th Avenue, 48th Avenue, Picadilly Road and E-470 are at the approximate one-mile spacing per standards)
- Collector spacing (42nd Avenue and Tibet Road) generally meets the half-mile spacing requirement and is consistent with previous planning at Green Valley Ranch East.
- There are two local street connections and one collector connection to Tibet Road, which forms the western perimeter of the site. Of note, the proposed collector connection to Tibet would provide for a potential future local connection into the Windler site north of Planning Areas 8 & 9. The site plan also shows one local street connection to 38th Avenue on the southern site perimeter.
- There are no cul-de-sacs longer than 500 feet proposed. No dead ends or hammerheads are proposed.

Several areas within Planning Areas 8 & 9 require travel on three local streets to connect to an internal destination (Aurora standards specify no more than two local streets to a destination)

V.D. Traffic Calming

Given the length of several internal streets, some potential traffic calming measures would help provide speed mitigation. Based on the site layout, curb extensions (or neckdowns) on the eastbound and westbound approaches at the first internal intersection on 39th Avenue would discourage speeding within Planning Area 8. Midblock curb extensions on the northbound and southbound approaches at the first intersection north of 39th Avenue on the primary north-south roadway within Planning Area 9 would also help to maintain low speeds within the site. These traffic calming locations are also depicted on **Figure 8**.



 = Traffic Calming



FIGURE 8

Internal Traffic Control

V.E. Queues

The 95th percentile maximum probable queue lengths for Long Range Future conditions were extracted from the SYNCHRO LOS worksheets contained in the Appendix. The queue lengths are converted into feet (assuming a typical length of 25 feet per vehicle) and are summarized in **Table 3**. The table also provides CDOT storage requirements per the State Highway Access Code (SHAC). The recommended storage lengths consider both the CDOT criteria and the queueing projections.

Table 3. Queue Length Summary – Long Range Future

Intersection/Movement	95 % Queue Length (ft)		CDOT Storage Requirement (ft)	Recommended Storage (ft)
	AM Peak Hour	PM Peak Hour		
38 th Ave/Tibet Road	Traffic Signal			
Northbound Left (2-lane)	125	300	200	300
Northbound Right	75	200	165	200
Southbound Left (2-lane)	225	200	145	225
Southbound Right	175	150	165	175
Eastbound Left	150	300	250	300
Eastbound Right	400	125	405	400
Westbound Left	200	75	170	200
Westbound Right	200	275	305	300
Tibet Rd/39 th Ave	STOP Sign			
Northbound Left	25	25	60	75
Northbound Right	–	–	60	75
Southbound Left	0	25	40	50
Southbound Right	–	–	40	50
Eastbound Left	25	25	40	50
Eastbound Thru-Right	25	25	45	50
Westbound Left	50	25	75	75
Westbound Thru-Right	25	25	40	50
Tibet Rd/42 nd Ave	STOP Sign			
Northbound Left	25	25	100	100
Northbound Right	–	–	40	50
Southbound Left	0	0	40	50
Southbound Right	–	–	55	75
Eastbound Left	25	25	50	50
Eastbound Thru-Right	25	25	125	125
Westbound Left	25	25	40	50
Westbound Thru-Right	25	25	40	50
Tibet Rd/North Site Access	STOP Sign			
Northbound Right	–	–	75	75
Southbound Left	0	25	50	50
Westbound Left	25	25	65	75
Westbound Right	25	25	40	50
38 th Ave/Site RIRO Access	STOP Sign			
Westbound Right	–	–	60	75

V.F. Auxiliary Lanes

The site access intersections along Tibet Road and 38th Avenue were evaluated relative to auxiliary lane criteria in the CDOT *State Highway Access Code*. The proposed design for Tibet Road is a two-lane Collector with an assumed 35 MPH posted speed limit (typical for collector roads in Aurora). 38th Avenue is planned to be a four-lane arterial with an assumed speed limit of 40 MPH. For this evaluation, CDOT NR-B criteria was applied. **Table 4** summarizes the auxiliary lane length requirements for the site accesses.

Table 4. Auxiliary Lanes – Planning Areas 8 & 9 Accesses⁽¹⁾

Intersection	Direction	Left-Turn Lane			Right-Turn Lane		
		Storage	Taper	Total	Storage	Taper	Total
39 th Avenue	SB	50	100	150			
	NB				75	100	175
42 nd Avenue	SB	50	100	150			
	NB						
North Access	SB	50	100	150			
	NB				75	100	175
RIRO Access	WB				75	144	219
1. Dimensions are given in feet.							

This section is repeated in the conclusion section

V.G. Recommendations

The roadway and intersection improvements that should ultimately be in the study area include the following:

It is common to repeat key points of the entire report within the conclusion section. This is helpful for those that choose to only read the conclusion section and not the rest of the report; however, the report should go into greater detail than the conclusion. Will not change

- Construct 38th Avenue adjacent to the site as a four-lane Arterial.
- Construct Tibet Road as a two-lane Collector.
- Construct the intersection of Tibet Road/38th Avenue to include separate left-turn and right-turn lanes along each approach. Dual left-turn lanes will be required on the northbound and southbound approaches. Periodically monitor this intersection and install a traffic signal, when warranted.
- Install STOP-sign control on the westbound approach at Tibet Road/39th Place. Provide a southbound left-turn lane and a northbound right-turn lane.
- Install STOP sign control on the westbound site access approach at the 42nd Avenue/Tibet Road intersection. Provide a southbound left-turn lane. Periodically monitor traffic and pedestrian conditions at this intersection. Ultimately, a signal could be warranted due to its proximity to the future school site and the potential need for a protected school crossing.
- Install STOP-sign control on the westbound approach at the Tibet Road/north site access intersection. Provide a southbound left-turn lane and a northbound right-turn lane.
- Install STOP sign control on the southbound RIRO access approach to 38th Avenue. Provide a westbound right-turn lane at this site access.
- Install STOP-sign control at the site-internal intersections as previously depicted.
- Install curb extensions as a traffic calming measure at two internal intersections as previously depicted.

VI. CONCLUSIONS AND RECOMMENDATIONS

It is currently proposed to develop 568 single-family homes within Green Valley Ranch East Planning Areas 8 & 9. The site is located along the east side of the future Tibet Road alignment, north of the future 38th Avenue alignment. Vehicular access would be via three roadway connections along Tibet Road and one along 38th Avenue.

The proposed development at Planning Areas 8 & 9 would have a trip generation potential of about 4,990 trips per day, with 365 AM peak hour trips and 510 PM peak hour trips. Because the adjacent roadway system has yet to be developed, the potential impacts of the site-generated traffic were evaluated under a Long Range Future scenario. In general, the existing and planned roadway system would have sufficient reserve capacity to accommodate the projected increases. Relative to this, the following findings and recommendations are specific to planning Areas 8 & 9:

- Construct 38th Avenue adjacent to the site as a four-lane Arterial.
- Construct Tibet Road as a two-lane Collector.
- Construct the intersection of Tibet Road/38th Avenue to include separate left-turn and right-turn lanes along each approach. Dual left-turn lanes will be required on the northbound and southbound approaches – all other approaches would have single left-turn lanes. Periodically monitor this intersection and install a traffic signal, when warranted.
- Install STOP-sign control on the westbound approach at Tibet Road/39th Place. Provide a southbound left-turn lane and a northbound right-turn lane.
- Install STOP-sign control on the westbound site access approach at the 42nd Avenue/Tibet Road intersection. Provide a southbound left-turn lane. Periodically monitor traffic and pedestrian conditions at this intersection. Ultimately, a signal could be warranted due to its proximity to the future school site and the potential need for a protected school crossing.
- Install STOP-sign control on the westbound approach at the Tibet Road/north site access intersection. Provide a southbound left-turn lane and a northbound right-turn lane.
- Install STOP-sign control on the southbound RIRO access approach to 38th Avenue. Provide a westbound right-turn lane at this site access.
- Install STOP-sign control at the site-internal intersections as previously depicted on **Figure 8**.
- Install curb extensions as a traffic calming measure at two internal intersections as previously depicted.

APPENDIX A. TRIP GENERATION

Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 174

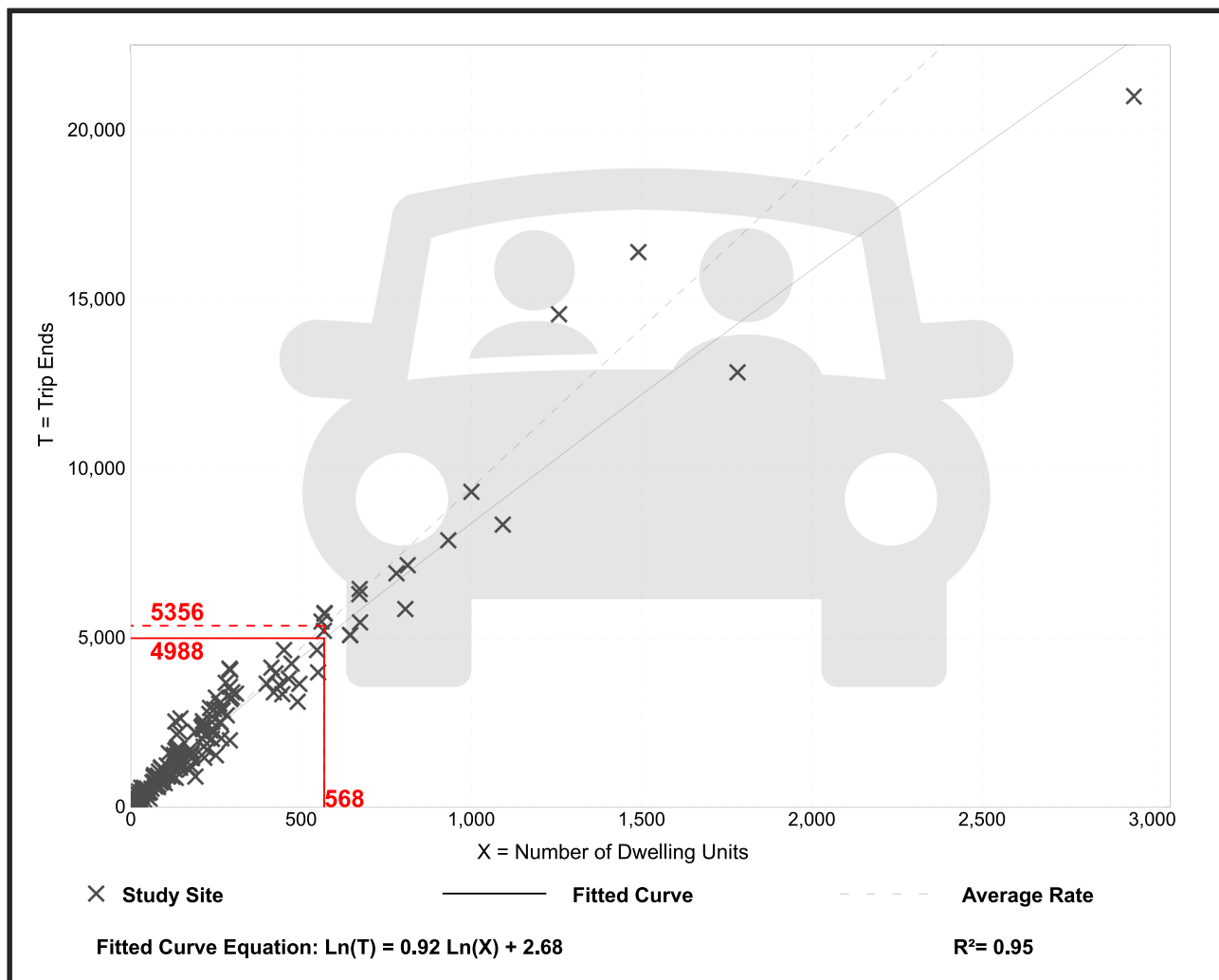
Avg. Num. of Dwelling Units: 246

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 192

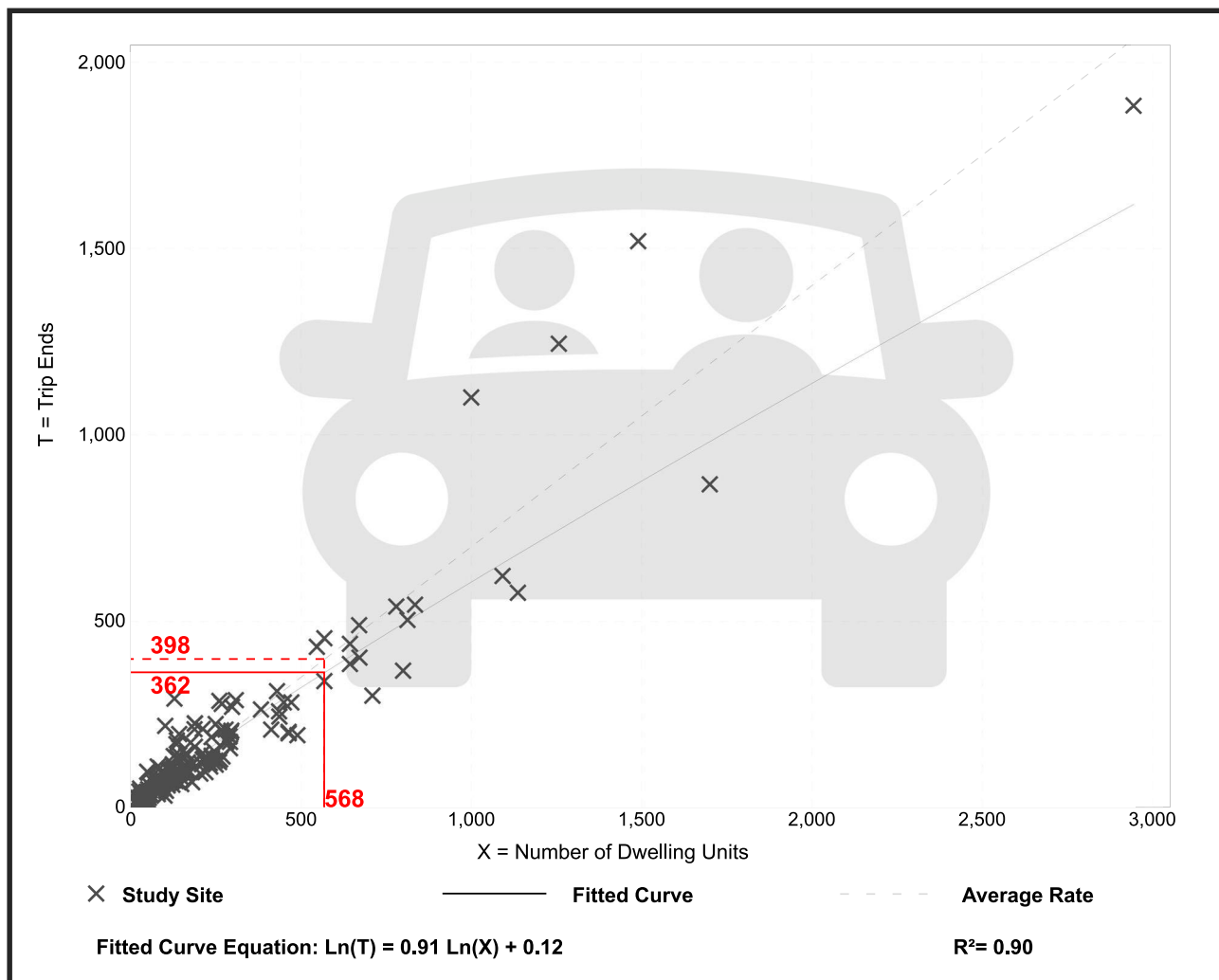
Avg. Num. of Dwelling Units: 226

Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 208

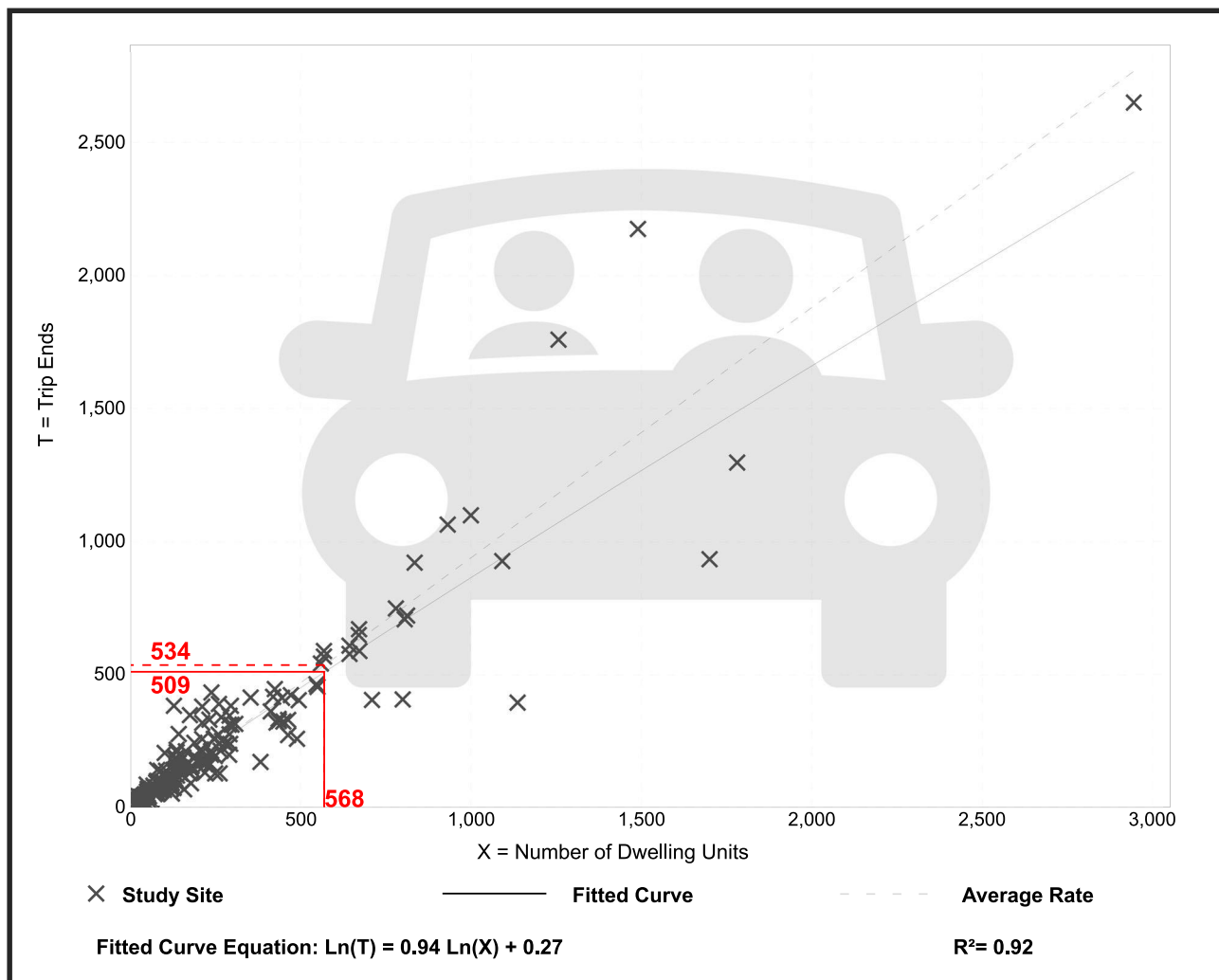
Avg. Num. of Dwelling Units: 248

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

























Data Plot and Equation



APPENDIX B. LONG RANGE FUTURE BACKGROUND LOS

Timings 2: Tibet Rd & 38th Ave

Long Range Background
PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	910	405	170	980	210	165	10	65	210	15	105
Future Volume (vph)	95	910	405	170	980	210	165	10	65	210	15	105
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	2 3	1	6	7
Permitted Phases	4		4	8		8						6
Detector Phase	7	4	5	3	8	1	5	2	2 3	1	6	7
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	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	12.0	52.0	27.0	17.0	57.0	27.0	27.0	24.0		27.0	24.0	12.0
Total Split (%)	10.0%	43.3%	22.5%	14.2%	47.5%	22.5%	22.5%	20.0%		22.5%	20.0%	10.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	None
Act Effect Green (s)	49.0	41.6	58.1	57.5	46.0	70.1	12.0	29.0	45.3	19.6	36.6	48.5
Actuated g/C Ratio	0.41	0.35	0.48	0.48	0.38	0.58	0.10	0.24	0.38	0.16	0.30	0.40
v/c Ratio	0.58	0.81	0.44	0.78	0.78	0.22	0.52	0.02	0.11	0.79	0.03	0.16
Control Delay	30.2	40.9	2.7	47.5	36.8	1.5	56.4	41.2	7.3	67.5	34.6	5.7
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	30.2	40.9	2.7	47.5	36.8	1.5	56.4	41.2	7.3	67.5	34.6	5.7
LOS	C	D	A	D	D	A	E	D	A	E	C	A
Approach Delay		29.2			32.7			42.4			46.4	
Approach LOS		C			C			D			D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 19.5 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 33.3









Intersection LOS: C

Intersection Capacity Utilization 64.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: Tibet Rd & 38th Ave

























 Ø1	 Ø2 (R)	 Ø3	 Ø4
27 s	24 s	17 s	52 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
27 s	24 s	12 s	57 s

HCM 6th Signalized Intersection Summary

2: Tibet Rd & 38th Ave

Long Range Background

PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	910	405	170	980	210	165	10	65	210	15	105
Future Volume (veh/h)	95	910	405	170	980	210	165	10	65	210	15	105
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	103	989	440	185	1065	228	179	11	71	228	16	114
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	1195	646	239	1305	811	246	534	585	258	672	652
Arrive On Green	0.05	0.34	0.34	0.08	0.37	0.37	0.07	0.29	0.29	0.14	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	103	989	440	185	1065	228	179	11	71	228	16	114
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.5	30.7	27.3	7.9	32.5	9.8	6.1	0.5	3.6	15.1	0.7	5.5
Cycle Q Clear(g_c), s	4.5	30.7	27.3	7.9	32.5	9.8	6.1	0.5	3.6	15.1	0.7	5.5
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	195	1195	646	239	1305	811	246	534	585	258	672	652
V/C Ratio(X)	0.53	0.83	0.68	0.77	0.82	0.28	0.73	0.02	0.12	0.88	0.02	0.17
Avail Cap(c_a), veh/h	212	1407	740	276	1555	923	648	534	585	334	672	652
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	36.6	29.2	28.2	34.3	16.7	54.6	30.8	25.0	50.3	24.9	22.4
Incr Delay (d2), s/veh	2.2	3.7	2.1	11.3	3.0	0.2	4.1	0.1	0.4	19.6	0.1	0.6
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	2.0	13.8	10.7	4.1	14.4	3.6	2.8	0.2	1.4	8.1	0.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	40.3	31.3	39.4	37.3	16.9	58.7	30.9	25.4	69.9	24.9	23.0
LnGrp LOS	C	D	C	D	D	B	E	C	C	E	C	C
Approach Vol, veh/h		1532			1478			261			358	
Approach Delay, s/veh		37.1			34.4			48.5			52.9	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.9	38.8	14.5	44.8	13.0	47.6	10.8	48.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	22.5	19.5	12.5	47.5	22.5	19.5	7.5	52.5				
Max Q Clear Time (g_c+l1), s	17.1	5.6	9.9	32.7	8.1	7.5	6.5	34.5				
Green Ext Time (p_c), s	0.3	0.2	0.1	7.6	0.5	0.3	0.0	8.3				

Intersection Summary

HCM 6th Ctrl Delay 38.4







HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection







Int Delay, s/veh 1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	45	20	295	285	5
Future Vol, veh/h	20	45	20	295	285	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	49	22	321	310	5

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	675	310	315
Stage 1	310	-	-
Stage 2	365	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	419	730	1245
Stage 1	744	-	-
Stage 2	702	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	411	730	1245
Mov Cap-2 Maneuver	411	-	-
Stage 1	731	-	-
Stage 2	702	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.5	0
HCM LOS	B		

























Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1245	-	411	730	-	-
HCM Lane V/C Ratio	0.017	-	0.053	0.067	-	-
HCM Control Delay (s)	7.9	-	14.2	10.3	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.2	-	-

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	70	70	245	220	40
Future Vol, veh/h	40	70	70	245	220	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	76	76	266	239	43
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	657	239	282	0	-	0
Stage 1	239	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	430	800	1280	-	-	-
Stage 1	801	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	405	800	1280	-	-	-
Mov Cap-2 Maneuver	405	-	-	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.8	1.8		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1280	-	405	800	-	-
HCM Lane V/C Ratio	0.059	-	0.107	0.095	-	-
HCM Control Delay (s)	8	-	15	10	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.3	-	-

Timings
2: Tibet Rd & 38th Ave

Long Range Background PM

PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	1270	185	80	1125	270	400	25	165	195	10	85
Future Volume (vph)	140	1270	185	80	1125	270	400	25	165	195	10	85
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	2 3	1	6	7
Permitted Phases	4		4	8		8						6
Detector Phase	7	4	5	3	8	1	5	2	2 3	1	6	7
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	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	12.0	52.0	27.0	17.0	57.0	27.0	27.0	24.0		27.0	24.0	12.0
Total Split (%)	10.0%	43.3%	22.5%	14.2%	47.5%	22.5%	22.5%	20.0%		22.5%	20.0%	10.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	None
Act Effect Green (s)	58.7	51.2	75.5	60.6	52.1	75.4	19.8	23.6	36.6	18.8	22.6	34.6
Actuated g/C Ratio	0.49	0.43	0.63	0.50	0.43	0.63	0.16	0.20	0.30	0.16	0.19	0.29
v/c Ratio	0.86	0.92	0.19	0.47	0.80	0.27	0.77	0.07	0.33	0.77	0.03	0.18
Control Delay	62.5	43.1	1.6	23.0	34.0	1.4	57.4	42.6	18.9	66.4	42.5	7.3
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	62.5	43.1	1.6	23.0	34.0	1.4	57.4	42.6	18.9	66.4	42.5	7.3
LOS	E	D	A	C	C	A	E	D	B	E	D	A
Approach Delay		40.0			27.5			46.0			48.3	
Approach LOS		D			C			D			D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 19.5 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 36.8









Intersection LOS: D

Intersection Capacity Utilization 68.9%

ICU Level of Service C

Analysis Period (min) 15

























Splits and Phases: 2: Tibet Rd & 38th Ave







 Ø1	 Ø2 (R)	 Ø3	 Ø4
27 s	24 s	17 s	52 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
27 s	24 s	12 s	57 s

HCM 6th Signalized Intersection Summary 2: Tibet Rd & 38th Ave

Long Range Background PM

PM Peak







												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	1270	185	80	1125	270	400	25	165	195	10	85
Future Volume (veh/h)	140	1270	185	80	1125	270	400	25	165	195	10	85
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	152	1380	201	87	1223	293	435	27	179	212	11	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	1478	892	152	1411	845	507	476	473	242	456	486
Arrive On Green	0.06	0.42	0.42	0.04	0.40	0.40	0.15	0.25	0.25	0.14	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	152	1380	201	87	1223	293	435	27	179	212	11	92
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.1	44.5	7.6	3.4	38.0	12.7	14.7	1.3	10.7	14.0	0.5	5.1
Cycle Q Clear(g_c), s	6.1	44.5	7.6	3.4	38.0	12.7	14.7	1.3	10.7	14.0	0.5	5.1
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	199	1478	892	152	1411	845	507	476	473	242	456	486
V/C Ratio(X)	0.76	0.93	0.23	0.57	0.87	0.35	0.86	0.06	0.38	0.88	0.02	0.19
Avail Cap(c_a), veh/h	199	1478	892	260	1555	909	648	476	473	334	456	486
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	33.5	13.2	28.7	33.3	16.1	50.0	33.8	33.3	50.9	34.5	30.6
Incr Delay (d2), s/veh	16.0	11.2	0.1	3.3	5.1	0.2	9.2	0.2	2.3	17.2	0.1	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(95%),veh/ln	6.1	28.5	4.9	2.8	23.8	8.1	11.3	1.1	7.9	11.8	0.5	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	44.6	13.3	32.1	38.4	16.3	59.1	34.1	35.6	68.0	34.6	31.5
LnGrp LOS	D	D	B	C	D	B	E	C	D	E	C	C
Approach Vol, veh/h	1733		1603				641		315			
Approach Delay, s/veh	40.9		34.0				51.5		56.2			
Approach LOS	D		C				D		E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.8	35.1	9.7	54.4	22.1	33.8	12.0	52.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	22.5	19.5	12.5	47.5	22.5	19.5	7.5	52.5				
Max Q Clear Time (g_c+l1), s	16.0	12.7	5.4	46.5	16.7	7.1	8.1	40.0				
Green Ext Time (p_c), s	0.3	0.4	0.1	0.8	0.8	0.2	0.0	7.7				
Intersection Summary												
HCM 6th Ctrl Delay	41.0											
HCM 6th LOS	D											
Notes												

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	40	60	375	250	25
Future Vol, veh/h	20	40	60	375	250	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	43	65	408	272	27

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	810	272	299	0	-	0
Stage 1	272	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	349	767	1262	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	331	767	1262	-	-	-
Mov Cap-2 Maneuver	331	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	585	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	1.1	0
HCM LOS	B		

























Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1262	-	331	767	-	-
HCM Lane V/C Ratio	0.052	-	0.066	0.057	-	-
HCM Control Delay (s)	8	-	16.6	10	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	0.2	-	-

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	105	100	295	170	45
Future Vol, veh/h	35	105	100	295	170	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	114	109	321	185	49
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	724	185	234	0	-	0
Stage 1	185	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	393	857	1333	-	-	-
Stage 1	847	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	361	857	1333	-	-	-
Mov Cap-2 Maneuver	361	-	-	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.4	2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1333	-	361	857	-	-
HCM Lane V/C Ratio	0.082	-	0.105	0.133	-	-
HCM Control Delay (s)	7.9	-	16.1	9.8	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.3	0.5	-	-

APPENDIX C. LONG RANGE FUTURE TOTAL TRAFFIC LOS

Timings
2: Tibet Rd & 38th Ave

Long Range Total
AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	910	405	170	1015	220	165	10	65	290	15	165
Future Volume (vph)	130	910	405	170	1015	220	165	10	65	290	15	165
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	2 3	1	6	7
Permitted Phases	4		4	8		8						6
Detector Phase	7	4	5	3	8	1	5	2	2 3	1	6	7
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	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	12.0	48.0	31.0	17.0	53.0	31.0	31.0	24.0		31.0	24.0	12.0
Total Split (%)	10.0%	40.0%	25.8%	14.2%	44.2%	25.8%	25.8%	20.0%		25.8%	20.0%	10.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	None
Act Effect Green (s)	48.1	40.6	57.0	56.4	44.9	65.9	12.0	33.1	49.5	16.5	37.6	49.6
Actuated g/C Ratio	0.40	0.34	0.48	0.47	0.37	0.55	0.10	0.28	0.41	0.14	0.31	0.41
v/c Ratio	0.82	0.83	0.45	0.78	0.83	0.24	0.52	0.02	0.10	0.67	0.03	0.24
Control Delay	57.6	43.1	2.9	48.4	40.2	1.8	56.4	36.6	6.3	56.1	32.7	6.2
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	57.6	43.1	2.9	48.4	40.2	1.8	56.4	36.6	6.3	56.1	32.7	6.2
LOS	E	D	A	D	D	A	E	D	A	E	C	A
Approach Delay		33.1			35.2			41.9			37.8	
Approach LOS		C			D			D			D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 19.5 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 35.2









Intersection LOS: D

Intersection Capacity Utilization 61.4%

ICU Level of Service B

Analysis Period (min) 15

























Splits and Phases: 2: Tibet Rd & 38th Ave

			
Ø1	Ø2 (R)	Ø3	Ø4
31 s	24 s	17 s	48 s
			
Ø5	Ø6 (R)	Ø7	Ø8
31 s	24 s	12 s	53 s

HCM 6th Signalized Intersection Summary











2: Tibet Rd & 38th Ave

Long Range Total
AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	910	405	170	1015	220	165	10	65	290	15	165
Future Volume (veh/h)	130	910	405	170	1015	220	165	10	65	290	15	165
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	141	989	440	185	1103	239	179	11	71	315	16	179
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	1203	650	241	1280	751	247	587	631	392	665	663
Arrive On Green	0.06	0.34	0.34	0.08	0.36	0.36	0.07	0.31	0.31	0.11	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	141	989	440	185	1103	239	179	11	71	315	16	179
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	6.2	30.6	27.2	8.0	34.6	11.2	6.1	0.5	3.4	10.7	0.7	8.9
Cycle Q Clear(g_c), s	6.2	30.6	27.2	8.0	34.6	11.2	6.1	0.5	3.4	10.7	0.7	8.9
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	201	1203	650	241	1280	751	247	587	631	392	665	663
V/C Ratio(X)	0.70	0.82	0.68	0.77	0.86	0.32	0.72	0.02	0.11	0.80	0.02	0.27
Avail Cap(c_a), veh/h	201	1288	688	277	1436	820	763	587	631	763	665	663
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	36.4	28.9	28.3	35.6	19.6	54.5	28.4	22.7	51.9	25.1	22.9
Incr Delay (d2), s/veh	10.5	4.2	2.5	10.7	5.1	0.2	4.0	0.1	0.4	3.9	0.1	1.0
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(95%),veh/ln	5.7	19.9	16.0	7.3	22.1	7.5	5.0	0.4	2.4	8.4	0.6	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	40.6	31.4	39.0	40.8	19.8	58.5	28.5	23.1	55.8	25.2	23.9
LnGrp LOS	D	D	C	D	D	B	E	C	C	E	C	C
Approach Vol, veh/h	1570				1527				261			
Approach Delay, s/veh	37.9				37.3				47.6			
Approach LOS	D				D				D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.1	42.2	14.6	45.1	13.1	47.2	12.0	47.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	26.5	19.5	12.5	43.5	26.5	19.5	7.5	48.5				
Max Q Clear Time (g_c+l1), s	12.7	5.4	10.0	32.6	8.1	10.9	8.2	36.6				
Green Ext Time (p_c), s	0.9	0.2	0.1	6.2	0.5	0.4	0.0	6.7				
Intersection Summary												
HCM 6th Ctrl Delay	39.1											
HCM 6th LOS	D											
Notes												

HCM 6th TWSC
3: Tibet Rd & 39th Ave

Long Range Total
AM Peak

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	0	45	75	0	20	20	330	10	10	350	5
Future Vol, veh/h	20	0	45	75	0	20	20	330	10	10	350	5
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	-	-	100	-	-	100	-	100	100	-	100
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	22	0	49	82	0	22	22	359	11	11	380	5










Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	822	816	380	832	810	359	385	0	0	370	0	0
Stage 1	402	402	-	403	403	-	-	-	-	-	-	-
Stage 2	420	414	-	429	407	-	-	-	-	-	-	-
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	293	311	667	288	314	685	1173	-	-	1189	-	-
Stage 1	625	600	-	624	600	-	-	-	-	-	-	-
Stage 2	611	593	-	604	597	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	278	302	667	261	305	685	1173	-	-	1189	-	-
Mov Cap-2 Maneuver	278	302	-	261	305	-	-	-	-	-	-	-
Stage 1	613	595	-	612	589	-	-	-	-	-	-	-
Stage 2	581	582	-	555	592	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.3		21.8		0.5		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1173	-	-	278	667	261	685	1189	-	-
HCM Lane V/C Ratio	0.019	-	-	0.078	0.073	0.312	0.032	0.009	-	-
HCM Control Delay (s)	8.1	-	-	19	10.8	24.9	10.4	8.1	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.2	1.3	0.1	0	-	-

HCM 6th TWSC
4: Tibet Rd & 42nd Ave







Long Range Total
AM Peak

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	5	70	10	15	10	70	295	5	5	285	50
Future Vol, veh/h	45	5	70	10	15	10	70	295	5	5	285	50
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	-	-	100	-	-	100	-	-	100	-	100
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	49	5	76	11	16	11	76	321	5	5	310	54

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	809	798	310	864	850	324	364	0	0	326	0	0
Stage 1	320	320	-	476	476	-	-	-	-	-	-	-
Stage 2	489	478	-	388	374	-	-	-	-	-	-	-
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	299	319	730	274	298	717	1195	-	-	1234	-	-
Stage 1	692	652	-	570	557	-	-	-	-	-	-	-
Stage 2	561	556	-	636	618	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	267	297	730	230	278	717	1195	-	-	1234	-	-
Mov Cap-2 Maneuver	267	297	-	230	278	-	-	-	-	-	-	-
Stage 1	648	649	-	534	521	-	-	-	-	-	-	-
Stage 2	501	520	-	563	616	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.1		17.3		1.6		0.1	
HCM LOS	C		C					

























Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1195	-	-	267	665	230	368	1234	-	-
HCM Lane V/C Ratio	0.064	-	-	0.183	0.123	0.047	0.074	0.004	-	-
HCM Control Delay (s)	8.2	-	-	21.5	11.2	21.4	15.6	7.9	-	-
HCM Lane LOS	A	-	-	C	B	C	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7	0.4	0.1	0.2	0	-	-

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	40	315	35	10	275
Future Vol, veh/h	65	40	315	35	10	275
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	100	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	43	342	38	11	299
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	663	342	0	0	380	0
Stage 1	342	-	-	-	-	-
Stage 2	321	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	426	701	-	-	1178	-
Stage 1	719	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	422	701	-	-	1178	-
Mov Cap-2 Maneuver	422	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	13.4	0	0.3			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 422 701 1178	-	-		
HCM Lane V/C Ratio	-	- 0.167 0.062 0.009	-	-		
HCM Control Delay (s)	-	- 15.2 10.5 8.1	-	-		
HCM Lane LOS	-	- C B A	-	-		
HCM 95th %tile Q(veh)	-	- 0.6 0.2 0	-	-		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↗		↗
Traffic Vol, veh/h	0	1265	1370	15	0	35
Future Vol, veh/h	0	1265	1370	15	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1375	1489	16	0	38
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	745
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	357
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	357
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		16.3		
HCM LOS	C					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	357		
HCM Lane V/C Ratio	-	-	-	0.107		
HCM Control Delay (s)	-	-	-	16.3		
HCM Lane LOS	-	-	-	C		
HCM 95th %tile Q(veh)	-	-	-	0.4		

Timings 2: Tibet Rd & 38th Ave

Long Range Total
PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	1270	185	80	1155	305	400	25	165	250	10	120
Future Volume (vph)	250	1270	185	80	1155	305	400	25	165	250	10	120
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	2 3	1	6	7
Permitted Phases	4		4	8		8						6
Detector Phase	7	4	5	3	8	1	5	2	2 3	1	6	7
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	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	20.0	52.0	28.0	16.0	48.0	28.0	28.0	24.0		28.0	24.0	20.0
Total Split (%)	16.7%	43.3%	23.3%	13.3%	40.0%	23.3%	23.3%	20.0%		23.3%	20.0%	16.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	None
Act Effect Green (s)	63.4	50.5	75.1	52.1	43.6	63.1	20.2	28.0	41.1	15.0	22.8	42.7
Actuated g/C Ratio	0.53	0.42	0.63	0.43	0.36	0.53	0.17	0.23	0.34	0.12	0.19	0.36
v/c Ratio	0.94	0.93	0.19	0.47	0.98	0.34	0.76	0.06	0.31	0.64	0.03	0.22
Control Delay	72.3	45.1	1.6	24.5	58.1	2.3	56.2	38.2	19.6	56.5	42.2	17.4
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	72.3	45.1	1.6	24.5	58.1	2.3	56.2	38.2	19.6	56.5	42.2	17.4
LOS	E	D	A	C	E	A	E	D	B	E	D	B
Approach Delay		44.4			45.3			45.2			43.8	
Approach LOS		D			D			D			D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 19.5 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 44.8









Intersection LOS: D

Intersection Capacity Utilization 75.1%

ICU Level of Service D

Analysis Period (min) 15

























Splits and Phases: 2: Tibet Rd & 38th Ave

 Ø1	 Ø2 (R)	 Ø3	 Ø4
28 s	24 s	16 s	52 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
28 s	24 s	20 s	48 s

HCM 6th Signalized Intersection Summary











2: Tibet Rd & 38th Ave

Long Range Total
PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1270	185	80	1155	305	400	25	165	250	10	120
Future Volume (veh/h)	250	1270	185	80	1155	305	400	25	165	250	10	120
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	272	1380	201	87	1255	332	435	27	179	272	11	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	1587	941	171	1288	733	509	484	481	344	395	539
Arrive On Green	0.13	0.45	0.45	0.05	0.36	0.36	0.15	0.26	0.26	0.10	0.21	0.21
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	272	1380	201	87	1255	332	435	27	179	272	11	130
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	13.7	42.2	7.1	3.7	41.8	17.1	14.7	1.3	10.6	9.2	0.6	7.1
Cycle Q Clear(g_c), s	13.7	42.2	7.1	3.7	41.8	17.1	14.7	1.3	10.6	9.2	0.6	7.1
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	295	1587	941	171	1288	733	509	484	481	344	395	539
V/C Ratio(X)	0.92	0.87	0.21	0.51	0.97	0.45	0.85	0.06	0.37	0.79	0.03	0.24
Avail Cap(c_a), veh/h	295	1587	941	262	1288	733	677	484	481	677	395	539
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	30.0	11.3	28.0	37.7	22.0	49.9	33.5	32.8	52.8	37.6	28.5
Incr Delay (d2), s/veh	33.0	5.5	0.1	2.3	19.1	0.4	8.1	0.2	2.2	4.1	0.1	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(95%),veh/ln	11.4	25.9	4.5	3.0	28.8	10.6	11.2	1.1	7.8	7.6	0.5	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.7	35.5	11.4	30.3	56.8	22.4	58.0	33.7	35.0	56.9	37.7	29.5
LnGrp LOS	E	D	B	C	E	C	E	C	C	E	D	C
Approach Vol, veh/h	1853				1674				641		413	
Approach Delay, s/veh	37.8				48.6				50.6		47.7	
Approach LOS	D				D				D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.5	35.5	9.9	58.1	22.2	29.8	20.0	48.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	23.5	19.5	11.5	47.5	23.5	19.5	15.5	43.5				
Max Q Clear Time (g_c+l1), s	11.2	12.6	5.7	44.2	16.7	9.1	15.7	43.8				
Green Ext Time (p_c), s	0.7	0.4	0.1	2.7	0.9	0.3	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	44.4											
HCM 6th LOS	D											
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
3: Tibet Rd & 39th Ave

Long Range Total
PM Peak

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	0	40	35	0	20	60	460	60	20	305	25
Future Vol, veh/h	20	0	40	35	0	20	60	460	60	20	305	25
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	-	-	100	-	-	100	-	100	100	-	100
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	22	0	43	38	0	22	65	500	65	22	332	27










Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1050	1071	332	1041	1033	500	359	0	0	565	0	0
Stage 1	376	376	-	630	630	-	-	-	-	-	-	-
Stage 2	674	695	-	411	403	-	-	-	-	-	-	-
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	205	221	710	208	232	571	1200	-	-	1007	-	-
Stage 1	645	616	-	470	475	-	-	-	-	-	-	-
Stage 2	444	444	-	618	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	186	204	710	184	215	571	1200	-	-	1007	-	-
Mov Cap-2 Maneuver	186	204	-	184	215	-	-	-	-	-	-	-
Stage 1	610	602	-	445	449	-	-	-	-	-	-	-
Stage 2	404	420	-	567	587	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.9		23.1		0.8		0.5	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1200	-	-	186	710	184	571	1007	-	-
HCM Lane V/C Ratio	0.054	-	-	0.117	0.061	0.207	0.038	0.022	-	-
HCM Control Delay (s)	8.2	-	-	26.9	10.4	29.6	11.6	8.7	-	-
HCM Lane LOS	A	-	-	D	B	D	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	0.2	0.8	0.1	0.1	-	-

HCM 6th TWSC
4: Tibet Rd & 42nd Ave

Long Range Total
PM Peak

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	20	105	10	10	5	100	375	25	10	235	55
Future Vol, veh/h	50	20	105	10	10	5	100	375	25	10	235	55
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	-	-	100	-	-	100	-	-	100	-	100
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	54	22	114	11	11	5	109	408	27	11	255	60







Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	925	930	255	1015	977	422	315	0	0	435	0	0
Stage 1	277	277	-	640	640	-	-	-	-	-	-	-
Stage 2	648	653	-	375	337	-	-	-	-	-	-	-
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	250	267	784	217	251	632	1245	-	-	1125	-	-
Stage 1	729	681	-	464	470	-	-	-	-	-	-	-
Stage 2	459	464	-	646	641	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	221	241	784	160	227	632	1245	-	-	1125	-	-
Mov Cap-2 Maneuver	221	241	-	160	227	-	-	-	-	-	-	-
Stage 1	665	674	-	423	429	-	-	-	-	-	-	-
Stage 2	405	423	-	529	635	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	17		22.6		1.6		0.3	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1245	-	-	221	576	160	289	1125	-	-
HCM Lane V/C Ratio	0.087	-	-	0.246	0.236	0.068	0.056	0.01	-	-
HCM Control Delay (s)	8.2	-	-	26.5	13.2	29.1	18.2	8.2	-	-
HCM Lane LOS	A	-	-	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.9	0.9	0.2	0.2	0	-	-

HCM 6th TWSC
10: Tibet Rd & North Access

Long Range Total
PM Peak

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	25	355	75	50	245
Future Vol, veh/h	55	25	355	75	50	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	100	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	27	386	82	54	266
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	760	386	0	0	468	0
Stage 1	386	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	374	662	-	-	1094	-
Stage 1	687	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	356	662	-	-	1094	-
Mov Cap-2 Maneuver	356	-	-	-	-	-
Stage 1	687	-	-	-	-	-
Stage 2	662	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.1	0		1.4		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	356	662	1094	-
HCM Lane V/C Ratio	-	-	0.168	0.041	0.05	-
HCM Control Delay (s)	-	-	17.1	10.7	8.5	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.1	0.2	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↑		↑
Traffic Vol, veh/h	0	1685	1510	60	0	30
Future Vol, veh/h	0	1685	1510	60	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1832	1641	65	0	33

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 821
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.32
Pot Cap-1 Maneuver	0	-	- - 0 318
Stage 1	0	-	- - 0 -
Stage 2	0	-	- - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 318
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.6
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	318
HCM Lane V/C Ratio	-	-	-	0.103
HCM Control Delay (s)	-	-	-	17.6
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.3