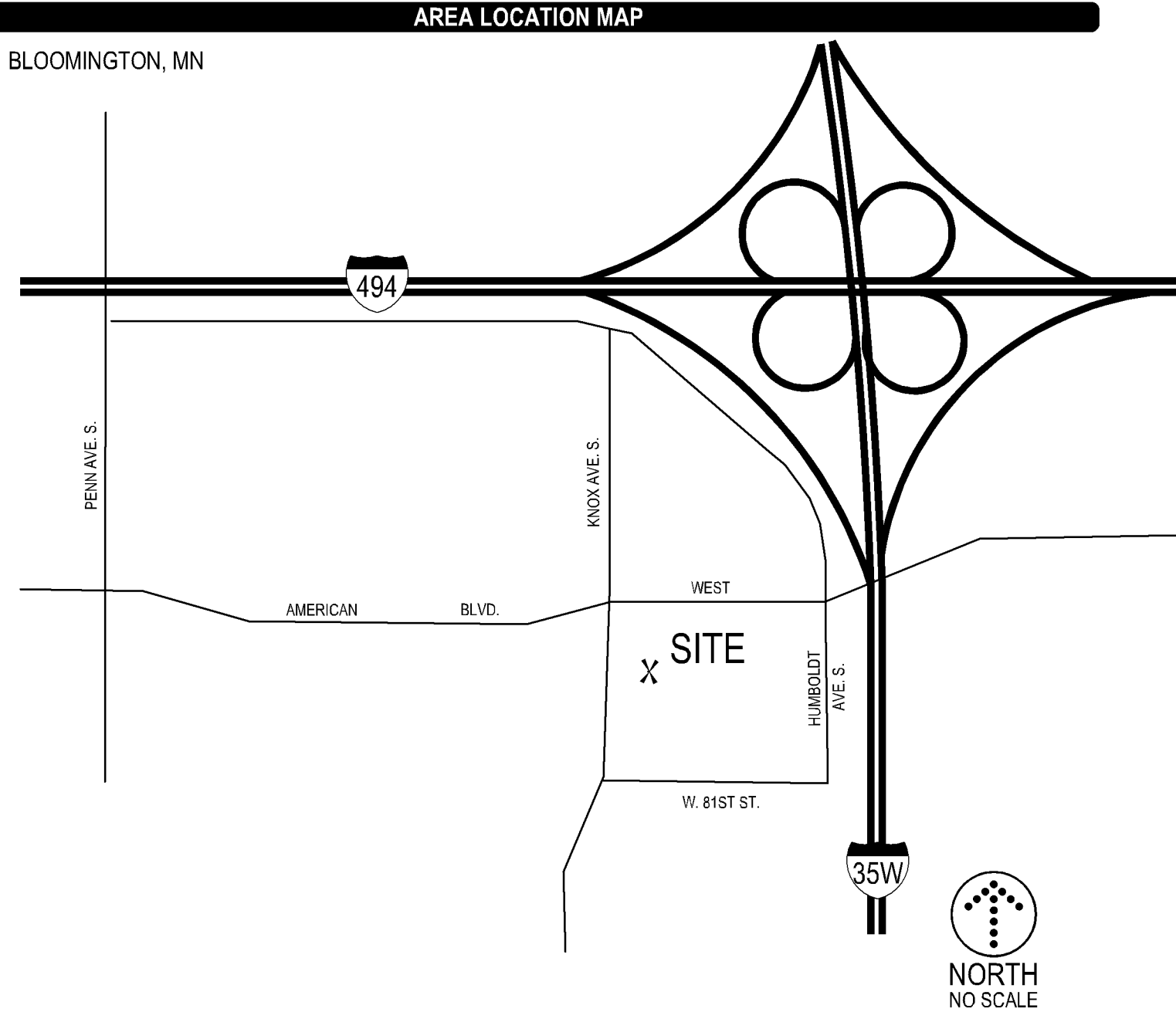




LUTHER BLOOMINGTON KIA

BLOOMINGTON, MINNESOTA

DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8800 - FAX (952) 258-8900

MUNICIPALITY



PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

OWNER

THE LUTHER COMPANY, LLLP

3701 ALABAMA AVE SOUTH
ST. LOUIS PARK, MN 55416
TEL 952-258-8800
FAX 952-258-8900
CONTACT: LINDA MCGINTY

PROJECT CONTACTS

CIVIL ENGINEER LANDFORM

105 SOUTH FIFTH AVENUE, SUITE 513
MINNEAPOLIS, MN 55401
TEL 612-252-9070
CONTACT: STEVE SABRASKI

SURVEYOR LANDFORM

105 SOUTH FIFTH AVENUE, SUITE 513
MINNEAPOLIS, MN 55401
TEL 612-252-9070
CONTACT: LARRY HUHN

LANDSCAPE ARCHITECT LANDFORM

105 SOUTH FIFTH AVENUE, SUITE 513
MINNEAPOLIS, MN 55401
TEL 612-252-9070
CONTACT: JOSH POPEHN

ARCHITECT GRIES ARCHITECTURAL GROUP INC.

500 NORTH COMMERCIAL STREET
NEENAH, WI 54956
TEL 920-722-2445
CONTACT: BRANNIN GRIES

CIVIL / LANDSCAPE SHEET INDEX & REVISION MATRIX

SHEETS ISSUED BY DATE		02/24/24	02/24/24	02/24/24	02/24/24
SHEET NO.	DESCRIPTION				
C0.1	CIVIL & LANDSCAPE TITLE SHEET	X	X	X	
C1.1	EXISTING CONDITIONS - BOUNDARY	X	X	X	
C1.2	EXISTING CONDITIONS - SITE	X	X	X	
C1.3	DEMOLITION	X	X	X	
C2.1	SITE PLAN	X	X	X	
C3.1	GRADING, DRAINAGE, PAVING & EROSION CONTROL	X	X	X	
C3.1A	GRADING, DRAINAGE, PAVING & EROSION CONTROL - ENLARGED		X		
C3.2	SWPPP		X	X	
C4.1	UTILITIES	X	X	X	
C7.1	CIVIL CONSTRUCTION DETAILS	X	X	X	
C7.2	CIVIL CONSTRUCTION DETAILS	X	X	X	
L2.1	TREE PLAN	X	X	X	
L2.2	LANDSCAPE PLAN-NORTH BOULEVARD	X	X	X	
L2.3	LANDSCAPE PLAN-SOUTH BOULEVARD	X	X	X	
L2.4	LANDSCAPE PLAN-BUILDING	X	X	X	
L4.1	PHOTOMETRICS-INITIAL VALUES	X	X	X	
L4.2	INITIAL VALUES-CALCULATIONS	X	X	X	
L4.3	PHOTOMETRICS-MAINTAINED VALUES	X	X	X	
L4.4	MAINTAINED VALUES-CALCULATIONS	X	X	X	
L4.5	LUMINAIRES	X	X	X	
L7.1	LANDSCAPE DETAILS	X	X	X	

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VOIDED, THIS SHEET HAS BEEN REPRODUCED, REVISED, OR OTHERWISE
REPRODUCED AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL

09.09.2024

LANDFORM

From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME C001LUT061.DWG

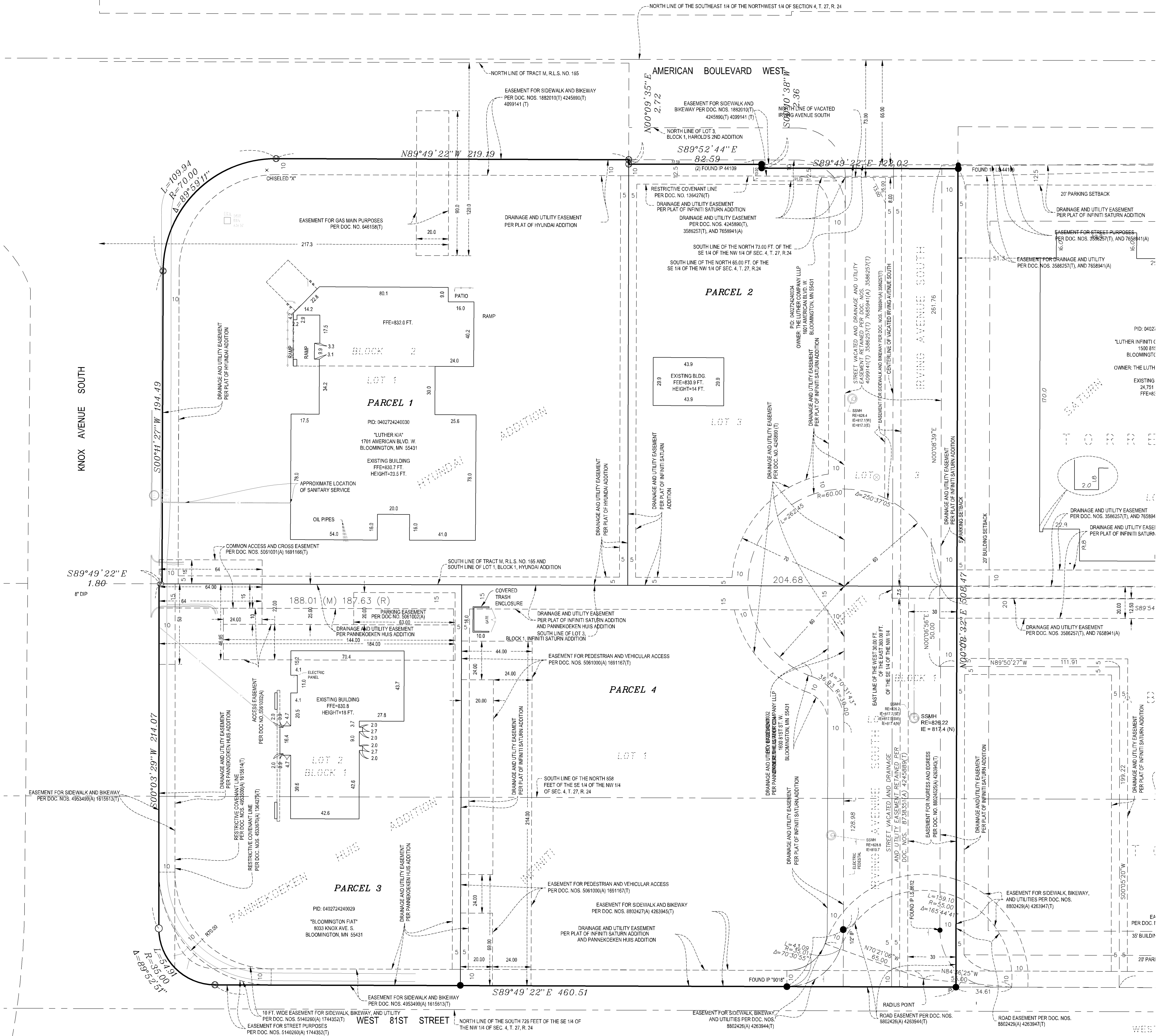
PROJECT NO. LUT23061

CIVIL & LANDSCAPE
TITLE SHEET

C0.1



Know what's Below.
Call before you dig.



- EXISTING CONDITIONS**
- Background information shown is from survey by Landform, Minneapolis, MN, on November, 30, 2023, expressly for this project. City of Bloomington, MN record drawings, and utility service providers. Landform offers no warranty, expressed or written, for information provided by others. Existing project conditions shall be verified prior to beginning construction. Errors, inconsistencies, or omissions discovered shall be reported to the Engineer IMMEDIATELY.
 - Geotechnical boring locations are approximate and are based on information provided in the Geotechnical Report prepared at a later date.

DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8800 - FAX (952) 258-8900



PROJECT

**LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN**

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

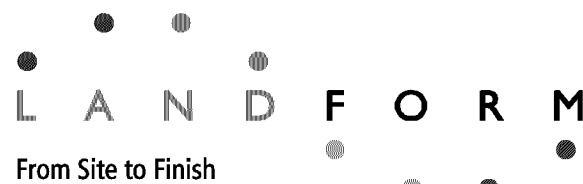
PL202400150
PL2024-150

CERTIFICATION

**PRELIMINARY
NOT FOR
CONSTRUCTION**

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

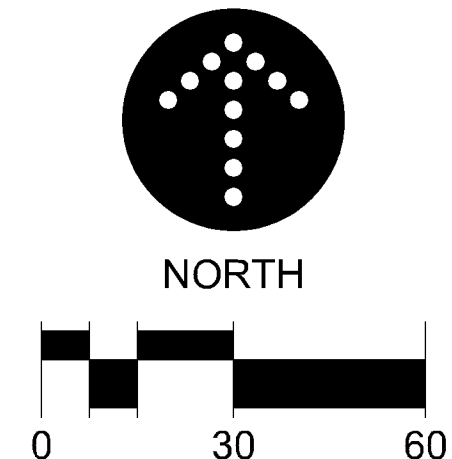
CITY RESUBMITTAL
09.09.2024

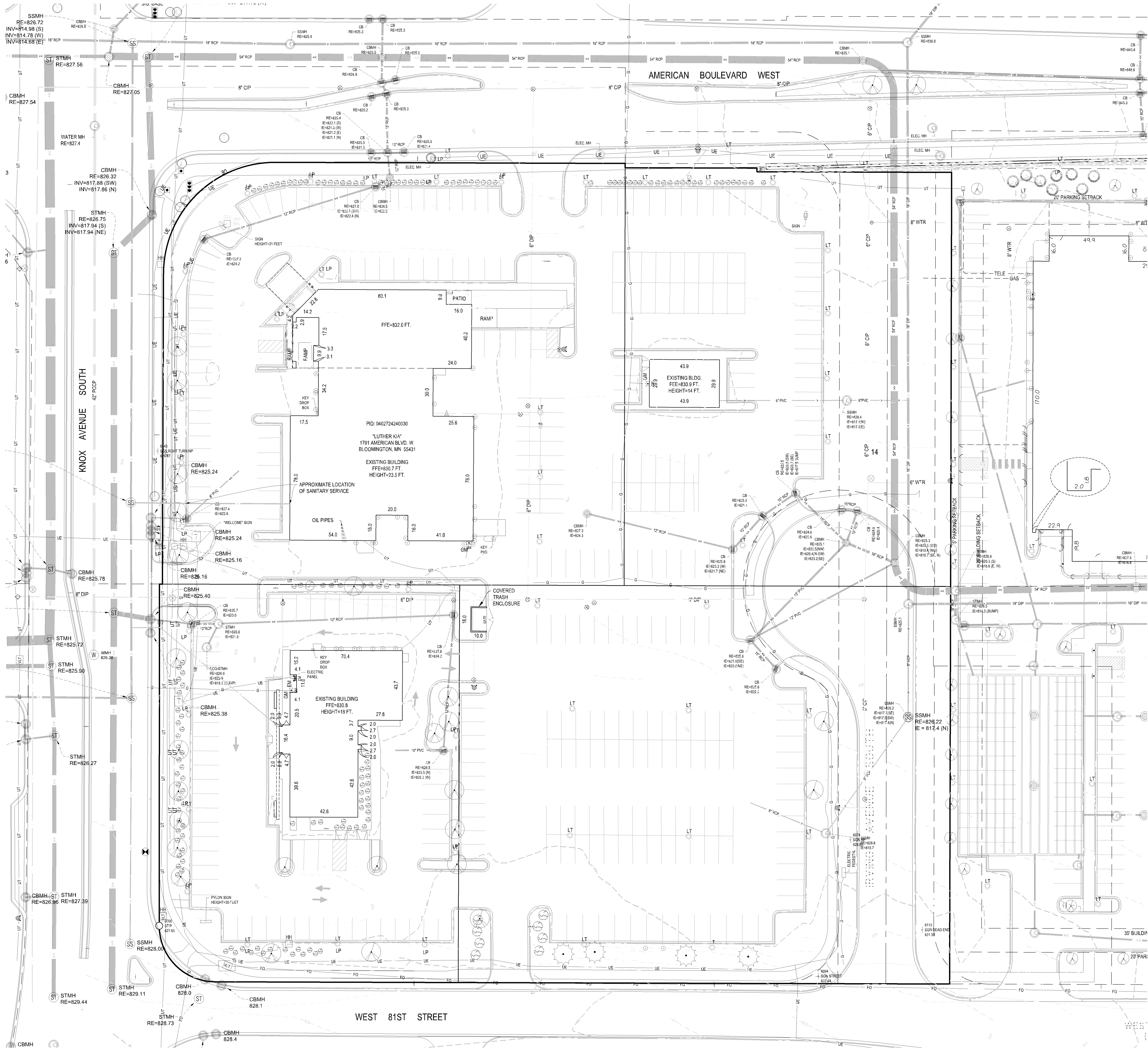


105 South Fifth Avenue Tel: 612-252-9070
Suite 513 Fax: 612-252-9077
Minneapolis, MN 55401 Web: landform.net

FILE NAME C101LUT061.DWG
PROJECT NO. LUT23061

**EXISTING CONDITIONS
BOUNDARY
C1.1**





EXISTING CONDITIONS

- Background information shown is from survey by Landform, Minneapolis, MN, on November, 30, 2023, expressly for this project. City of Bloomington, MN record drawings, and utility service providers. Landform offers no warranty, expressed or written, for information provided by others. Existing project conditions shall be verified prior to beginning construction. Errors, inconsistencies, or omissions discovered shall be reported to the Engineer IMMEDIATELY.
- Geotechnical boring locations are approximate and are based on information provided in the Geotechnical Report prepared at a later date.

DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8800 - FAX (952) 259-8900

MUNICIPALITY



PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

CONTACT ENGINEER FOR ANY PRIOR HISTORY		
DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

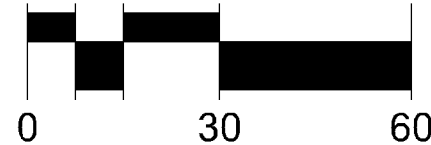
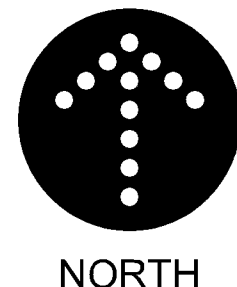
LANDFORM
From Site to Finish

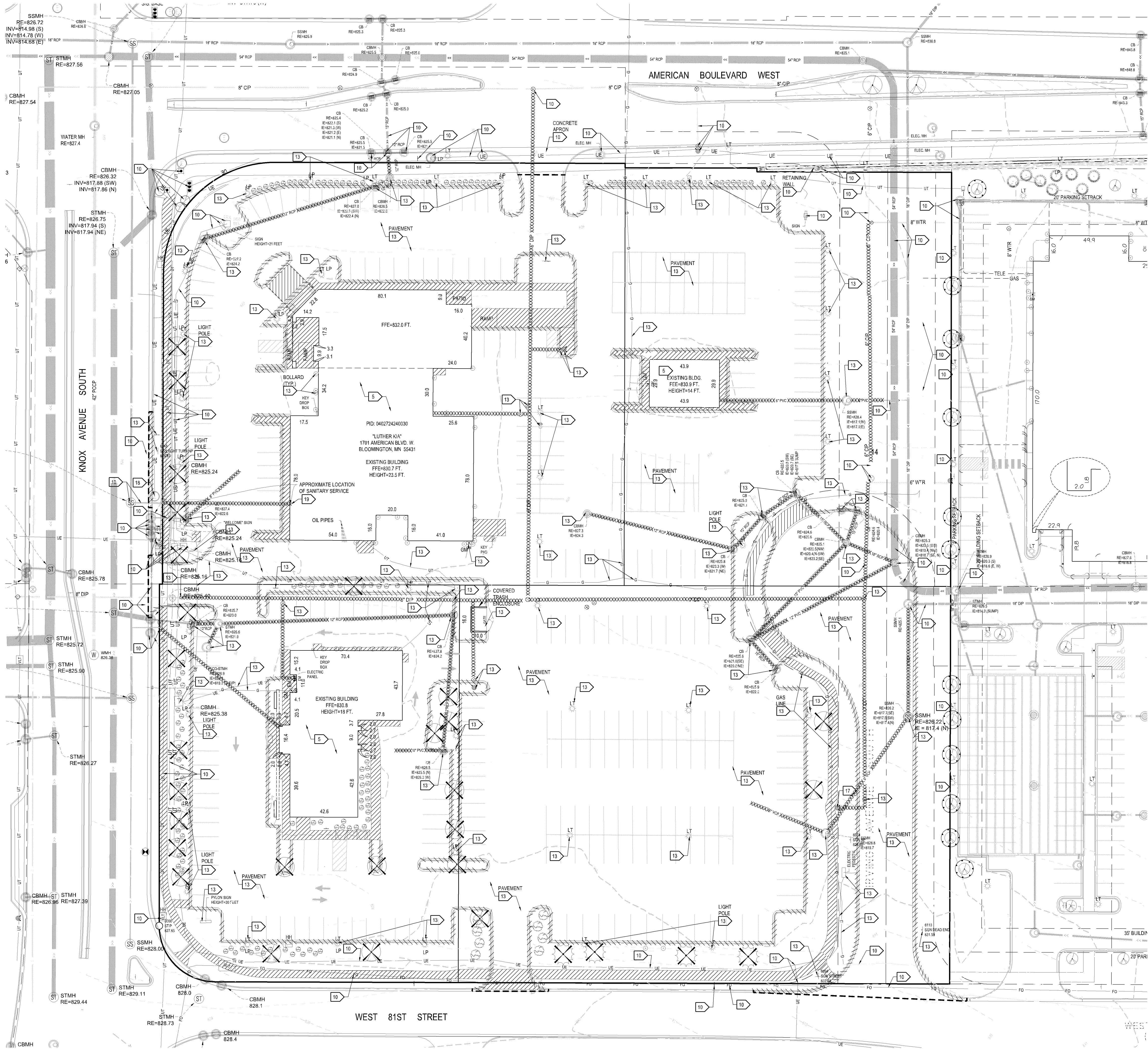
105 South Fifth Avenue Tel: 612-252-9070
Suite 513 Fax: 612-252-9077
Minneapolis, MN 55401 Web: landform.net

FILE NAME C102LUT061.DWG
PROJECT NO. LUT23061

EXISTING CONDITIONS
SITE

C1.2





- GENERAL NOTES**
- DEMOLITION AND CLEARING NOTES**
- LEGEND**

DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8800 - FAX (952) 258-8900

MUNICIPALITY

BLOOMINGTON

PROJECT

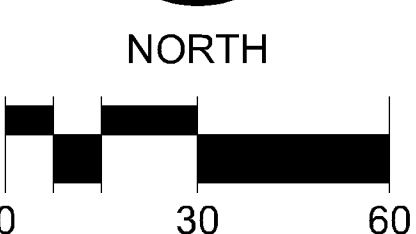
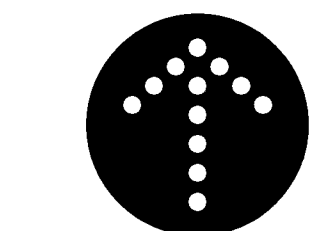
LUTHER BLOOMINGTON KIA BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 JUL 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES



Know what's Below.
Call before you dig.



PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

LANDFORM
From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

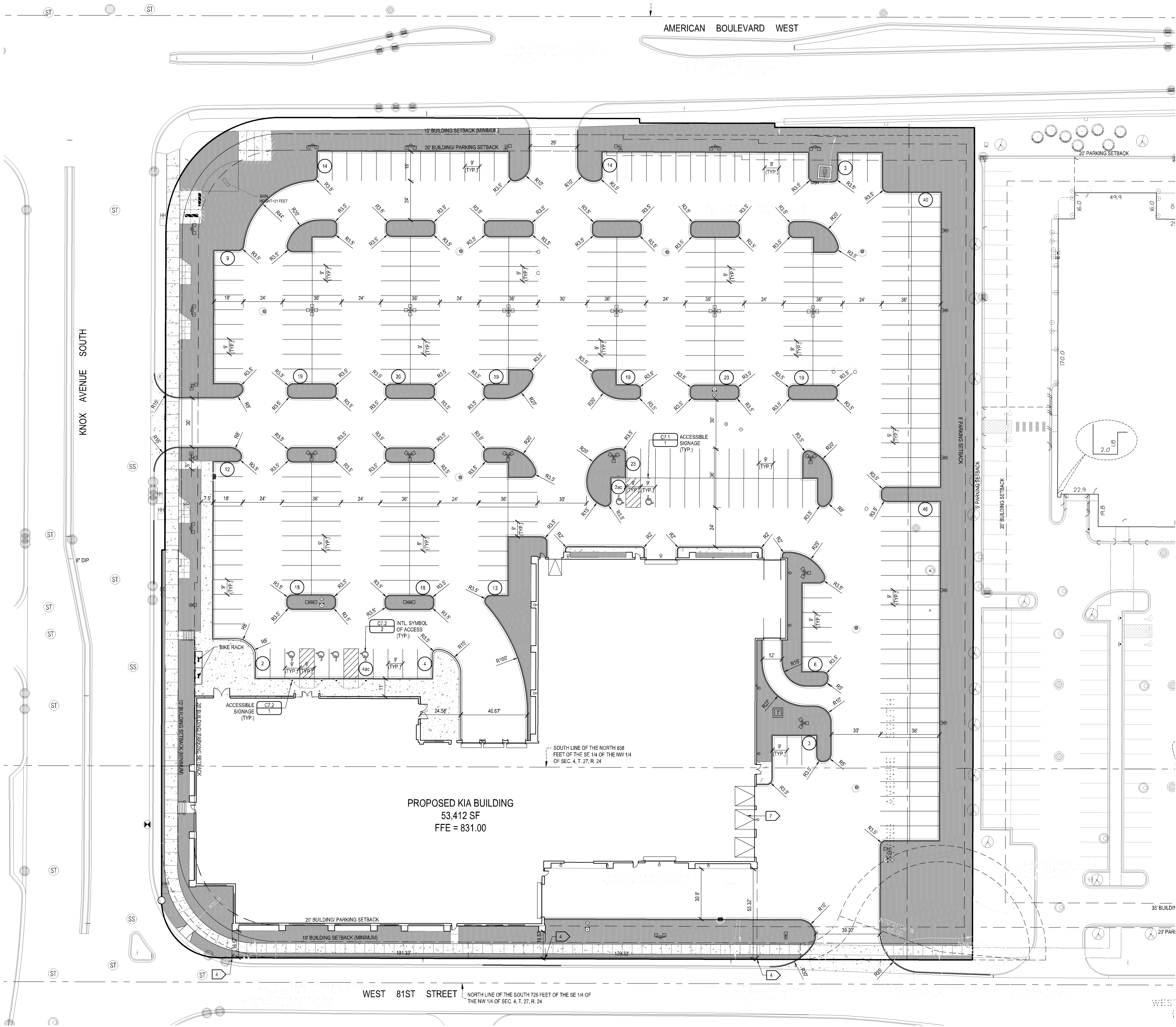
Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME: C103LUT061.DWG
PROJECT NO.: LUT23061

DEMOLITION

C1.3

Landform and Site to Finish are registered service marks of Landform Professional Services, LLC.



GENERAL NOTES

- For construction staking and surveying services contact Landform at 612.252.9070.
- Obtain all necessary permits for construction within, or use of, public right-of-way.
- The digital file, which can be obtained from the Engineer, shall be used for staking. Discrepancies between the drawings and the digital file shall be reported to the Engineer. The building footprint, as shown on these drawings, and the digital file, shall be compared to the structural drawings prior to staking.
- Building layout angles are parallel with or perpendicular to the property line at the location indicated.
- Dimensions shown are to face of curb and exterior face of building unless noted otherwise.
- Delineate parking stalls with a 4-inch wide white painted stripe. Delineate access aisles with 4-inch wide white painted stripes 19 inches on center and at 45 degree angle to direction of travel.
- Trash / Recycling areas: See Architectural drawings.
- All construction and post-construction parking and storage of equipment and materials must be on-site. Use of public streets for private construction parking, loading/unloading, and storage will not be allowed.
- Contractor shall obtain a Public Works permit for obstructions and concrete work within the right-of-way. Permit is required prior to removals or installation. Contact Susan Jenkins (952-563-4545), sjenkins@bloomingtonmn.gov for permit information.

ZONING AND SETBACK SUMMARY

The Property is Zoned Freeway Mixed Use Zone (C-5)

Building Setback Information is as follows:
50% of bldg facade must be located at bldg setback on primary street.
Knox Ave frontage = 513 ft.
50% = 257 ft. required
177 ft. proposed

30% of bldg facade must be located at bldg setback on secondary street.
81st St frontage = 455 ft.
Effective = 360 ft. (Less Living Right of Way Easement)
30% = 135 ft. required
191 ft. proposed

Parking Setback Information is as follows:
Front Yard / Street = 20 ft.
Side = 5 ft.

Existing F.A.R. : 0.09
Proposed F.A.R. : 0.23

AREA SUMMARY

Existing:			
Perivable	54,829 s.f.	1.26 ac.	21.8%
Impervious	197,054 s.f.	4.52 ac.	78.2%
Total	251,883 s.f.	5.78 ac.	100.0%
Proposed:			
Perivable	43,455 s.f.	0.99 ac.	17.3%
Impervious	208,428 s.f.	4.79 ac.	82.7%
Total	251,883 s.f.	5.78 ac.	100.0%

PARKING SUMMARY

Required Parking:		
1 space per 300 square feet of gross floor area excluding service bays, plus 2 spaces per service bay.		
53,412 gross floor area + 3 service bays		
1 space x (53,412 sf / 300 sf) + 2 spaces x 3 service bays = 171.4		
Total Parking Stalls Required		184 ea.
Provided Parking:		
Standard Stalls (9x18)		343 ea.
Accessible Stalls (9x18)		6 ea.
Total Parking Stalls Provided		349 ea.

LEGEND

Green Space (Landscape Area)

DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8800 - FAX (952) 258-8900

MUNICIPALITY



PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL

09.09.2024

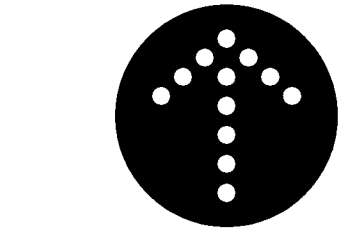
LANDFORM
From Site to Finish

105 South Fifth Avenue Tel: 612-252-9070
Suite 513 Fax: 612-252-9077
Minneapolis, MN 55401 Web: landform.net

FILE NAME C201LUT061.DWG

PROJECT NO. LUT23061

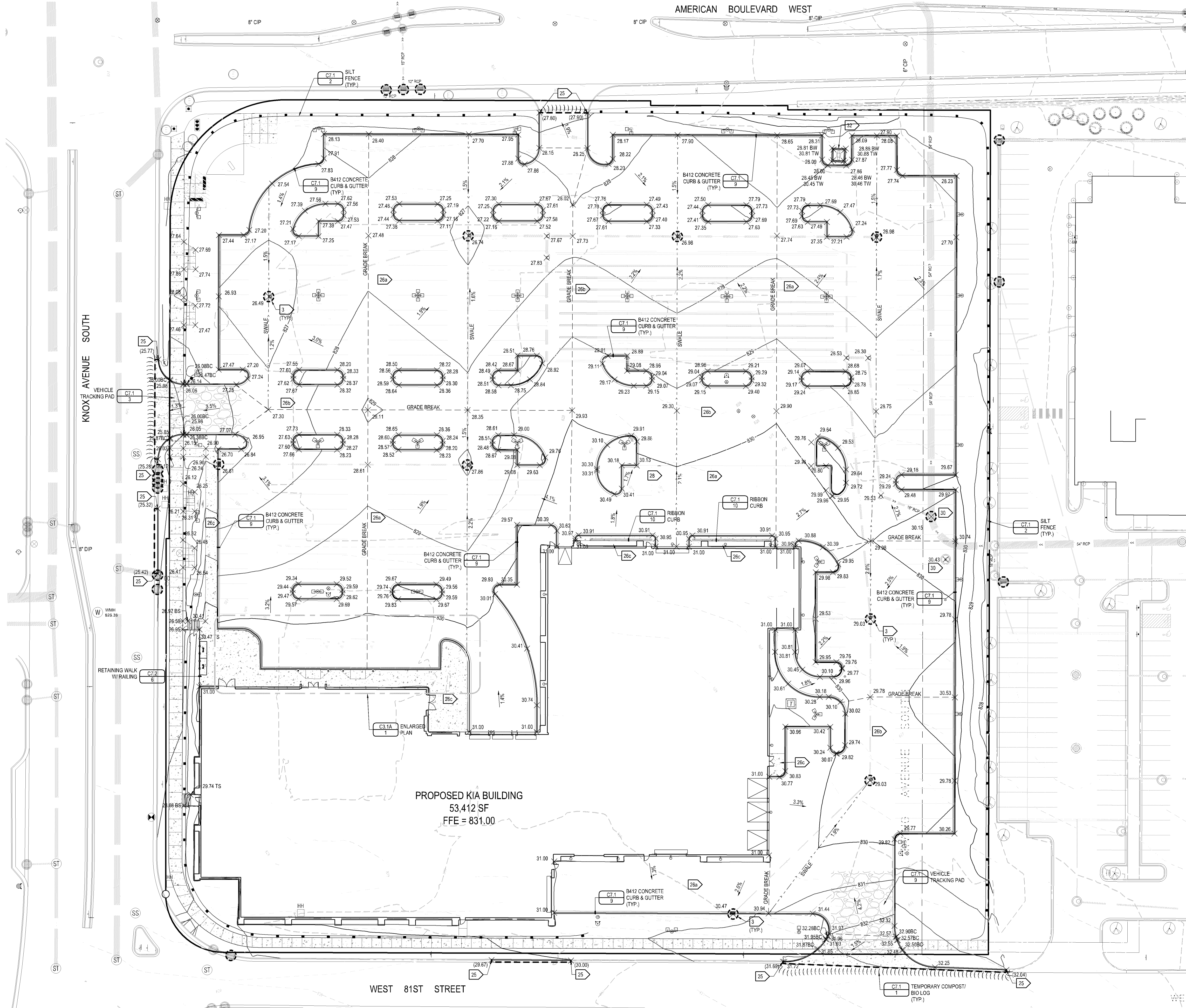
SITE
PLAN
C2.1



NORTH



0 30 60



PROPOSED KIA BUILDING
53,412 SF
FFE = 831.00

INFILTRATION BASIN INFORMATION & TESTING

37. Avoid soil compaction of infiltration practices. Any equipment used in infiltration areas should be small scaled and tracked. Install protective fencing as shown before work begins.
38. The bottom of surface infiltration basins (not underground) shall be scarified to a depth of 12" prior to placement of topsoil or planting media.
39. DESIGN PERMEABILITY RATES:
Infiltration Basin 1P was designed with a permeability of 0.45 inches/hour.
40. TESTING:
- a. Infiltration Basins: At the time of basin excavation, and prior to placement of any material (soil, chambers, etc.), permeability testing shall be performed.
- b. Filtration Basins: Once filtration basin media has been placed, permeability testing shall be performed.
- c. Contractor shall contact Landform at 612-252-9070 or engage a qualified testing firm to measure the permeability of the basin surface utilizing a Double Ring Infiltrometer, Modified Philip Dunn (MPD) Infiltrometer, or other method approved by the Civil Engineer or Geotechnical Engineer. Test results shall be greater than or equal to the following rates to meet long term rates required for design.
Infiltration Basin 1P needs a permeability of 0.9 inches/hour.
- d. Contractor to contact the following to schedule testing. Representative staff from each entity may wish to observe the tests. Contact shall be made 72 hours prior to testing.
- Civil Engineer: Steve Sabraski, sabraski@landform.net, (612) 252-9070
Geotechnical Engineer: Paul Gonfardo, cel.gonfardo@baldaniam.com, (763) 504-5266
Nine Mile Creek Watershed: Zach Sullivan, permitted@9mccreek.org, (863) 224-6690
City of Bloomington: Mike Centinoro, mcentinoro@BloomingtonMN.gov, (852) 553-8921
41. RATE OF TESTING: Contractor shall coordinate with the testing firm to provide permeameter tests at the following rates:
- | Filtration/Infiltration Basin I.D. | Basin Area (s.f.) | No. of Tests Required |
|------------------------------------|-------------------|-----------------------|
| 1P | 11,218 | 4 |
42. Test results shall be provided to the Civil Engineer, Geotechnical Engineer, Nine Mile Creek Watershed & City of Bloomington.

GENERAL NOTES

1. For construction staking and surveying services contact Landform at 612.252.9070.
- EROSION PREVENTION AND SEDIMENT CONTROL NOTES**
2. Install perimeter sediment controls prior to beginning work and maintain for duration of construction. Remove controls after areas contributing runoff are permanently stabilized and dispose of off site.
3. Install inlet protection: Winco RD or CG models as appropriate, or approved equal. Maintain protection until project is stabilized.
4. Limit soil disturbance to the grading limits shown. Schedule operations to minimize length of exposure of disturbed areas.
5. Management practices shown are the minimum requirement. Install and maintain additional controls as work proceeds to prevent erosion and control sediment carried by wind or water.
6. Refer to SWPPP Notes on Sheet C3.2 for additional requirements.
7. Reserved.
8. Contractor shall prevent sediment laden water from entering the filtration / infiltration system until the site is completely stabilized.
9. Stabilization must be started immediately to limit soil erosion when the construction activity in that portion of the site has temporarily or permanently ceased and will not resume for 14 calendar days.
10. Seed, Sod, Mulch, Erosion Control Blanket, and Fertilizer shall meet the following Specifications, as modified: Seeded areas without erosion control blanket shall be disc mulched.
- | Item | Specification Number |
|---|----------------------|
| Sod | MNDOT 3878 |
| Seed | MNDOT 3875 |
| MN Type 21-111 @ 100 lb./ac. - Temporary Erosion Control - Temporary Erosion Control, May 1 - Jul 31 | |
| MN Type 21-112 @ 100 lb./ac. - Temporary Erosion Control - Temporary Erosion Control, Aug 1 - Oct 31 | |
| MN Type 25-141 @ 59 lbs./ac. for General Roadside, 25-151 @ 120 lb./ac. for Residential Turf - Permanent Turf | |
| Mulch (MNDOT Type 1 @ 2 tons/ac., Disc Anchored) | MNDOT 3882 |
| Erosion Control Blanket (MNDOT Type 3M for 12 mo.) 4N (for 24 mo.) | MNDOT 3885 |
| Fertilizer | MNDOT 3881 |
| General Placement | MNDOT 2575 |

GRADING NOTES

12. Scrape adjacent streets clean daily and sweep clean weekly.
13. Contact utility service providers for field location of services 72 hours prior to beginning grading.
14. Refer to the Geotechnical Report prepared at later date, for additional information on backfill material and groundwater conditions.
15. Remove topsoil from grading areas and stockpile sufficient quantity for reuse. Materials may be mined from landscape areas for use on site and replaced with excess organic material with prior Owner approval.
16. Remove surface and ground water from excavations. Provide initial lifts of stable foundation material if exposed soils are wet and unstable.
17. Rough grade Building Pad to 12 inches below Finished Floor Elevation (FFE).
18. Refer to Structural Specifications for earthwork requirements for building pads.
19. An Independent Testing Firm shall verify the removal of organic and unsuitable soils, soil correction, and compaction and provide periodic reports to the Owner.
20. Place and compact fill using lift thicknesses matched to soil type and compaction equipment to obtain specified compaction throughout the fill.
21. Compact cohesive soils in paved areas to 95% of maximum dry density, Standard Proctor (ASTM D698) except the top 3 feet which shall be compacted to 100%. Compact to 95% density where fill depth exceeds 10 feet. The soils shall be within 3% of optimum moisture content. In granular soils all portions of the embankment shall be compacted to not less than 95% of Modified Proctor Density (ASTM D1557).
22. Coordinate with Architectural for building stop locations. Slopes shown on adjacent walks and pavements should continue over stops.

PAVING NOTES

23. Spot Elevations at curbs indicate flowlines unless noted otherwise. See Sheet C4.1 for rim elevations of catch basins.
24. Grades between proposed spot elevations shall be continuous and nonvariable. Spot Elevations shall govern over contour lines.
25. Meet and Match existing curb. Transition as needed.
26. Paving Sections
- a. Bituminous Paving (Light Duty)
Bituminous Wear (MNDOT 2360)
Tack Coat (MNDOT 2357)
Bituminous Base (MNDOT 2360)
Aggregate Base (MNDOT 3138, Class 5)
Compacted Subsoil
- b. Bituminous Paving (Heavy Duty)
Bituminous Wear (MNDOT 2360)
Tack Coat (MNDOT 2357)
Bituminous Base (MNDOT 2360)
Aggregate Base (MNDOT 3138, Class 5)
Compacted Subsoil
- c. Concrete Walkways
4-inch Concrete Walk, 4000 PSI, 5%-8% Air Entrained, Max. 4" Slump (MNDOT 2301)
4-inch Aggregate Base (MNDOT 3138, CLASS 5)
Compacted Subsoil
- d. Concrete Drives, Aprons, and Exterior Slabs
Concrete, 4000 PSI, 5%-8% Air Entrained, Max. 4" Slump (MNDOT 2301)
Aggregate Base (MNDOT 3138, CLASS 5)
Compacted Subsoil
27. Concrete Joints:
Install joints as shown and align across sidewalks, curbs, and pavement, paying attention to spacing of expansion joints. Joint spacing shall be as follows:
a. Tied joint: Divide panels into nominally equal areas unless shown otherwise.
b. Expansion Joints: Sidewalks - 40 feet max.; Curb - 80 feet max.; Pavement: 80 feet max.; Adjacent to building foundations and stops.
c. Contraction Joints: Sidewalks - 8 to 10 feet; Curb and Aprons - 12 to 15 feet.

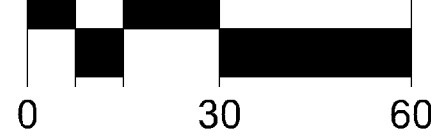
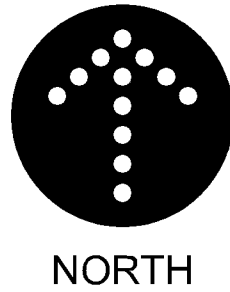
28. Accessible Parking Stalls and adjacent access aisles shall not exceed a 2.00% slope in any direction.
29. Accessible Routes shall have a maximum cross slope of 2.00% and a maximum running slope of 5.00%.
30. Adjust all structure rims to match pavement elevations.
31. Transition from B412 curb & gutter to Ribbon curb.
- 31a. Transition from B412 curb & gutter to D412 surmountable curb & gutter.

DRY CAST RETAINING WALL NOTES

32. Dry Cast Concrete Segmental Retaining Wall. Color to be determined by Owner or Architect.
33. Provide structural design of retaining walls, following MNDOT Retaining Wall specifications for minimum design and performance. Provide construction of walls in accordance with approved design.
34. Confirm architectural requirements for wall units with owner.
35. Submit design to City for approval prior to Building Permit issuance.
36. Provide coordination and assurance that related work constructed within the reinforced earth zone, including fences, underground utilities, guard rails, etc.; is in accordance with approved design and does no damage to reinforcing elements of the retaining wall.

LEGEND

SYMBOL	DESCRIPTION	ESTIMATED QUANTITY
	Inlet Protection	23 ea.
	Silt Fence	1,594 ft.
	Compost or Bio Log	249 ft.
	Vehicle Tracking Pad	2 ea.
	Pavement Sawcut	
	Top of Wall	
	Bottom of Wall	
	Tip Out Curb	



DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8800 - FAX (952) 258-8900

MUNICIPALITY



BLOOMINGTON

PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

LANDFORM
From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

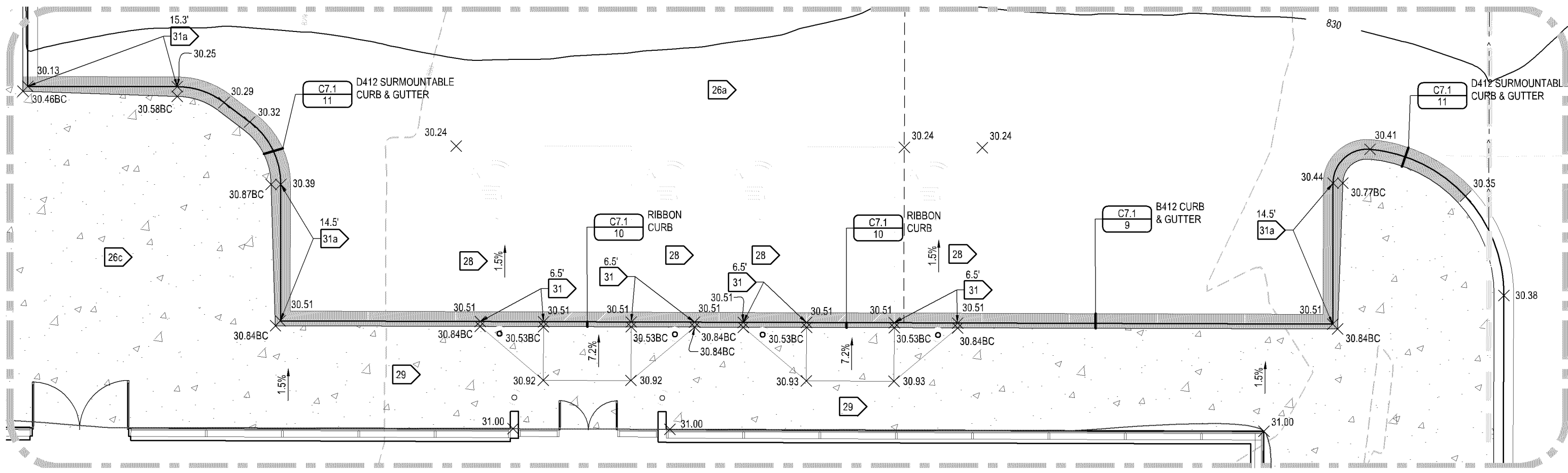
FILE NAME C301LUT061.DWG

PROJECT NO. LUT23061

GRADING, DRAINAGE, PAVING,
& EROSION CONTROL

C3.1

Landform and Site to Finish are registered service marks of Landform Professional Services, LLC.



1

ENLARGED PLAN

10 SCALE

GENERAL NOTES

1. For construction staking and surveying services contact Landform at 612.252.9070.

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

- Install perimeter sediment controls prior to beginning work and maintain for duration of construction. Remove controls after areas contributing runoff are permanently stabilized and dispose of off site.
- Install inlet protection: Winco RD or CG models as appropriate, or approved equal. Maintain protection until project is stabilized.
- Limit soil disturbance to the grading limits shown. Schedule operations to minimize length of exposure of disturbed areas.
- Management practices shown are the minimum requirement. Install and maintain additional controls as work proceeds to prevent erosion and control sediment carried by wind or water.
- Refer to SWPPP Notes on Sheet C3.2 for additional requirements.
- Reserved.
- Contractor shall prevent sediment laden water from entering the filtration / infiltration system until the site is completely stabilized.
- Stabilization must be started immediately to limit soil erosion when the construction activity in that portion of the site has temporarily or permanently ceased and will not resume for 14 calendar days.
- Seed, Sod, Mulch, Erosion Control Blanket, and Fertilizer shall meet the following Specifications, as modified: Seeded areas without erosion control blanket shall be disc mulched.

Item	Specification Number
Sod	MNDOT 3878
Seed	MNDOT 3876
MN Type 21-111 @ 100 lb./ac. - Temporary Erosion Control - Temporary Erosion Control, May 1 - Jul 31	
MN Type 21-112 @ 100 lb./ac. - Temporary Erosion Control - Temporary Erosion Control, Aug 1 - Oct 31	
MN Type 25-141 @ 59 lbs./ac. for General Roadside, 25-151 @ 120 lb./ac. for Residential Turf - Permanent Turf	
Mulch	MNDOT 3882
(MNDOT Type 1 @ 2 ton/ac.; Disc Anchored)	
Erosion Control Blanket	MNDOT 3885
(MNDOT Type 3N (for 12 mo.) 4N (for 24 mo.))	
Fertilizer	MNDOT 3881
General Placement	MNDOT 2575

11. See Landscape Sheets for permanent turf and landscape establishment.

12. Scrape adjacent streets clean daily and sweep clean weekly.

GRADING NOTES

- Contact utility service providers for field location of services 72 hours prior to beginning grading.
- Refer to the Geotechnical Report prepared at later date, for additional information on backfill material and groundwater conditions.
- Remove topsoil from grading areas and stockpile sufficient quantity for reuse. Materials may be mined from landscape areas for use on site and replaced with excess organic material with prior Owner approval.
- Remove surface and ground water from excavations. Provide initial lifts of stable foundation material if exposed soils are wet and unstable.
- Rough grade Building Pad to 12 inches below Finished Floor Elevation (FFE).
- Refer to Structural Specifications for earthwork requirements for building pads.
- An Independent Testing Firm shall verify the removal of organic and unsuitable soils, soil correction, and compaction and provide periodic reports to the Owner.
- Place and compact fill using lift thicknesses matched to soil type and compaction equipment to obtain specified compaction throughout the fill.
- Compact cohesive soils in paved areas to 95% of maximum dry density, Standard Proctor (ASTM D698) except the top 3 feet which shall be compacted to 100%. Compact to 95% density where fill depth exceeds 10 feet. The soils shall be within 3% of optimum moisture content. In granular soils all portions of the embankment shall be compacted to not less than 95% of Modified Proctor Density (ASTM D1557).

21. Coordinate with Architectural for building stoop locations. Slopes shown on adjacent walks and pavements should continue over stoops.

PAVING NOTES

- Spot Elevations at outlines indicate flowlines unless noted otherwise. See Sheet C4.1 for rim elevations of catch basins.
- Grades between proposed spot elevations shall be continuous and nonvariable. Spot Elevations shall govern over contour lines.
- Meet and Match existing curb. Transition as needed.

- Paving Sections
 - Bituminous Paving (Light Duty)
 - Bituminous Wear (MNDOT 2360)
 - Tack Coat (MNDOT 2357)
 - Bituminous Base (MNDOT 2360)
 - Aggregate Base (MNDOT 3138, Class 5)
 - Compacted Subsoil
 - Bituminous Paving (Heavy Duty)
 - Bituminous Wear (MNDOT 2360)
 - Tack Coat (MNDOT 2357)
 - Bituminous Base (MNDOT 2360)
 - Aggregate Base (MNDOT 3138, Class 5)
 - Compacted Subsoil
 - Concrete Walkways
 - 4-inch Concrete Walk, 4000 PSI, 5%-8% Air Entrained, Max. 4" Slump (MNDOT 2301)
 - 4-inch Aggregate Base (MNDOT 3138, CLASS 5)
 - Compacted Subsoil
 - Concrete Drives, Aprons, and Exterior Slabs
 - Concrete, 4000 PSI, 5%-8% Air Entrained, Max. 4" Slump (MNDOT 2301)
 - Aggregate Base (MNDOT 3138, CLASS 5)
 - Compacted Subsoil

- Concrete Joints
 - Install joints as shown and align across sidewalks, curbs, and pavement, paying attention to spacing of expansion joints. Joint spacing shall be as follows:
 - Todded joints: Divide panels into nominally equal areas unless shown otherwise.
 - Expansion Joints: Sidewalks - 40 feet max.; Curb - 60 feet max.; Pavement: 80 feet max.; Adjacent to building foundations and stoops.
 - Contraction Joints: Sidewalks - 8 to 10 feet; Curbs and Aprons - 12 to 15 feet.

28. Accessible Parking Stalls and adjacent access aisles shall not exceed a 2.00% slope in any direction.

29. Accessible Routes shall have a maximum cross slope of 2.00% and a maximum running slope of 5.00%.

30. Adjust all structure rims to match pavement elevations.

31. Transition from B412 curb & gutter to Ribbon curb.

31a. Transition from B412 curb & gutter to D412 surmountable curb & gutter.

DRY CAST RETAINING WALL NOTES

32. Dry Cast Concrete Segmental Retaining Wall. Color to be determined by Owner or Architect.

33. Provide structural design of retaining walls, following MNDOT Retaining Wall specifications for minimum design and performance. Provide construction of walls in accordance with approved design.

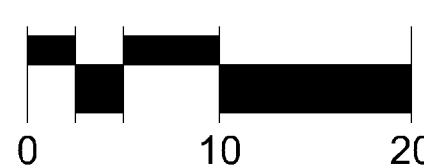
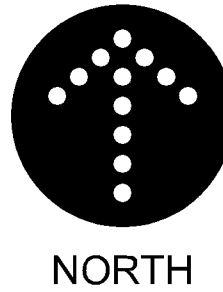
34. Confirm architectural requirements for wall units with owner.

35. Submit design to City for approval prior to Building Permit issuance.

36. Provide coordination and assurance that related work constructed within the reinforced earth zone; including fences, underground utilities, guard rails, etc.; is in accordance with approved design and does no damage to reinforcing elements of the retaining wall.

LEGEND

SYMBOL	DESCRIPTION
	Inlet Protection
	Silt Fence
	Compost or Bio Log
	Vehicle Tracking Pad
	Pavement Sawcut
	Top of Wall
	Bottom of Wall
	Tip Out Curb



INFILTRATION BASIN INFORMATION & TESTING

- Avoid soil compaction of infiltration practices. Any equipment used in infiltration areas should be small scaled and tracked. Install protective fencing as shown before work begins.
- The bottom of surface infiltration basins (not underground) shall be scarified to a depth of 12" prior to placement of topsoil or planting media.
- DESIGN PERMEABILITY RATES:
Infiltration Basin 1P was designed with a permeability of 0.45 inches/hour.
- TESTING:
 - Infiltration Basins: At the time of basin excavation, and prior to placement of any material (soil, chambers, etc.), permeability testing shall be performed.
 - Filtration Basins: Once filtration basin media has been placed, permeability testing shall be performed.
 - The bottom of surface infiltration basins (not underground) shall be scarified to a depth of 12" prior to placement of topsoil or planting media.

d. Contractor to contact the following to schedule testing: Representative staff from each entity may wish to observe the tests. Contact shall be made 72 hours prior to testing.

Civil Engineer: Steve Sabrauskas, ssabrauskas@landform.net, (612) 252-9070
Geotechnical Engineer: Paul Gionfriddo, cel.gionfriddo@calanisami.com, (763) 504-5266
Nine Mile Creek Watershed: Zach Sutcliffe, permit@9mccreek.org, (863) 224-6690
City of Bloomington: Mike Centinoro, mcentinoro@BloomingtonMN.gov, (652) 553-8921

41. RATE OF TESTING: Contractor shall coordinate with the testing firm to provide permeameter tests at the following rates:

Filtration/Infiltration Basin I.D.	Basin Area (s.f.)	No. of Tests Required
1P	11,218	4

42. Test results shall be provided to the Civil Engineer, Geotechnical Engineer, Nine Mile Creek Watershed & City of Bloomington.

DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952)258-8800 - FAX (952) 258-8900

MUNICIPALITY



BLOOMINGTON

PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

LANDFORM
From Site to Finish

105 South Fifth Avenue Tel: 612-252-9070
Suite 513 Fax: 612-252-9077
Minneapolis, MN 55401 Web: landform.net

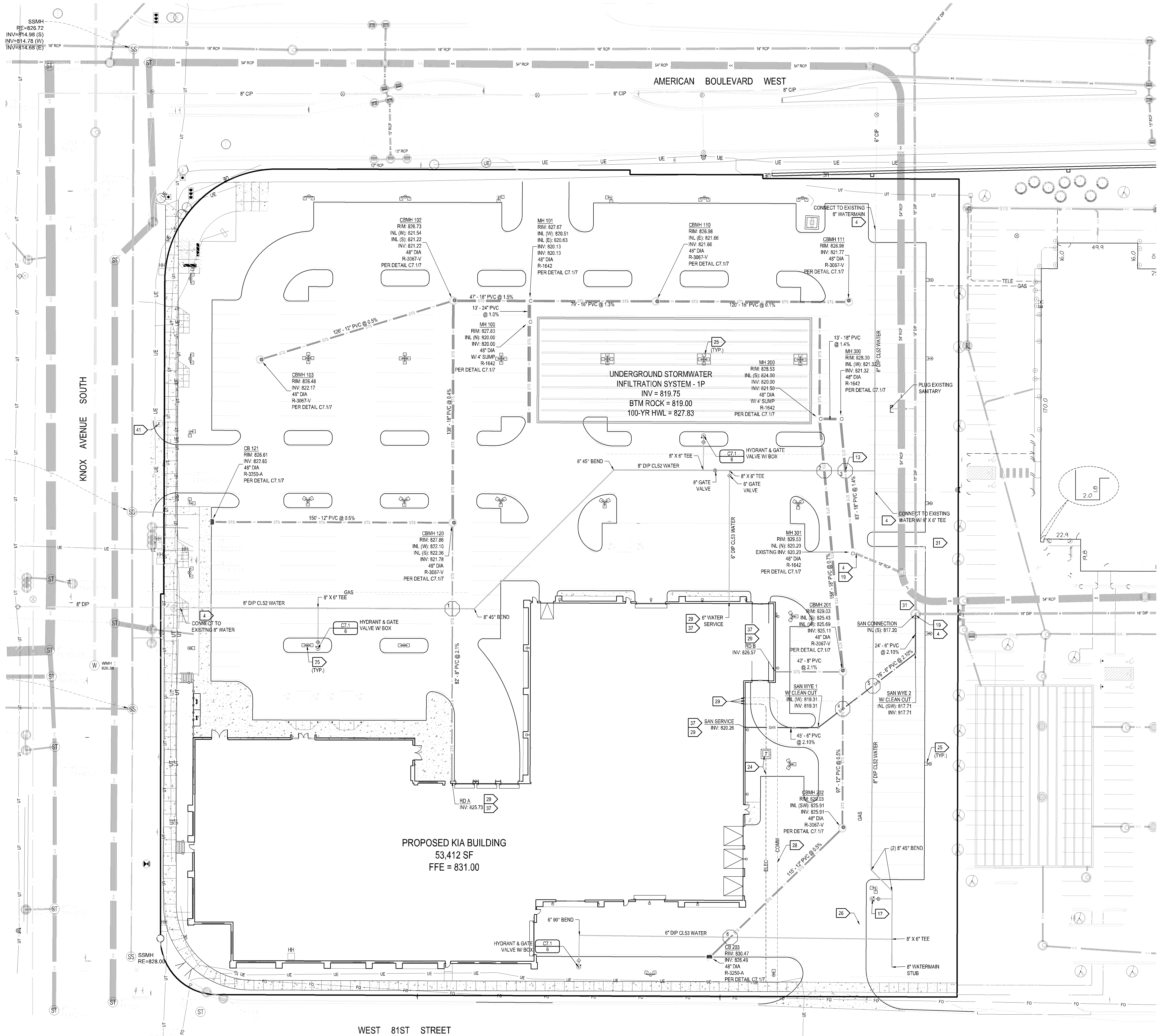
FILE NAME C301LUT061.DWG

PROJECT NO. LUT23061

GRADING, DRAINAGE, PAVING,
& EROSION CONTROL-ENLARGED

C3.1A

Landform and Site to Finish are registered service marks of Landform Professional Services, LLC.



GENERAL NOTES

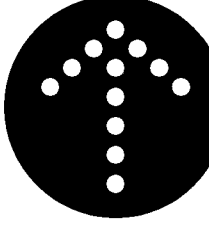
- For construction staking and surveying services contact Landform at 612.252.9070.
- Pipe Materials
 - Watermain: D1P Class 52 (ANSI A21.51/AWWA C151)
 - Water Service: Copper Type K (ASTM B88)
 - Private Sanitary Sewer: PVC Schedule 40 (ASTM D1785, D2865, F891, F1488 & F1760)
 - Storm Sewer: PVC Schedule 40 (ASTM D1785, D2865, F891, F1488 & F1760)
 - RCP: 12"-18" Class 5 (ASTM C79)
 - RCP: 24"-48" Class 3 (ASTM C79)
 - HDPE: Corrugated, Smooth Interior, Water Tight (ASTM D3350, ASTM D4976, ASTM F2306, AASHTO M252)
 - HDPE: Corrugated & Perforated (ASTM F405 & F667)
- Drain Tile
- Contact utility service providers for field location of services 72 hours prior to beginning.
- Contractor to field verify location and elevation of all utility points of connection prior to construction of any proposed utilities.
- Contractor to notify Engineer immediately if there is any discrepancy.
- Contractor to probe all utility crossings prior to construction of new utilities to verify depths of existing lines. Contact Engineer immediately if any conflicts are discovered.
- Provide means and measures to protect adjacent property from damage during utility installation.
- Pipe lengths shown are from center of structure to center of structure or end of end section.
- Install tracer wire with all non-conductive utilities in accordance with City of Bloomington Standards.
- Connect to City utilities in accordance with City of Bloomington Standards.
- Contact the City of Bloomington for wet tap inspection.
- Maintain 8.0 feet of cover on water.
- Deflect water to maintain 18-inch minimum outside separation at sewer crossings. Center pipe lengths to provide greatest separation between joints.
- Contact City of Bloomington Utilities Department, at 952.563.8777 for flushing and pressure test inspections.
- The water distribution system shall be disinfected per Minnesota Rules, Part 4714.
- Provide 4-inch rigid foam (ASTM D1621) insulation on sanitary sewer less than 6 feet deep.
- Proposed location of salvaged hydrant.
- All portions of the storm sewer system, located within 10 feet of the building or water service line must be tested in accordance with Minnesota Rules, Part 4714.
- All joints and connections in the storm sewer and sanitary sewer system shall be gasket or water tight. Approved resilient rubber joints must be used to make watertight connections to manholes, catch basins, and other structures.
- Catch basins in curb and gutter are sumped 2 inches below the gutter grade.
- Rock media in infiltration or filtration systems shall be angular, non-calicheous rock.
- Irrigation sleeve to be 4 inch Schedule 80 PVC buried 24" below grade. Extend sleeves 3-feet beyond the edge of pavement. Mark each end of sleeve with 3/4-inch rebar 12 inches below finish grade. (Coordinate with irrigation contractor.)
- Coordinate with Private Utilities to provide electric, natural gas, and communications services to building.
- The primary electric feed, transformer, and meter are provided and installed by Xcel Energy. The transformer pad design is provided by the Utility and construction is by the Contractor. Contact Utility for pad detail. The secondary electric and conduits shall be installed by the Electrical Contractor.
- See site lighting plan for additional information.
- Xcel Energy will furnish and install gas service piping from the mainline to the meter and the meter. Gas service from the meter shall be installed by the Mechanical Contractor.
- Provide one 2-inch PVC conduit with pull-string from existing telephone service to building.
- Provide conduits for cable television and other electronic communication.
- Coordinate with Mechanical, Plumbing, and Electrical Drawings for locations of service connections and confirmation of services within building.
- Compact cohesive soils in paved areas to 95% of maximum dry density, Standard Proctor (ASTM D698) except the top 3 feet which shall be compacted to 100%; compared to 95% density where fill depth exceeds 10 feet. The soils shall be within 3% of optimum moisture content. In granular soils all portions of the embankment shall be compacted to not less than 95% of Modified Proctor Density (ASTM D1557).
- Adjust structures to final grade where disturbed. Comply with requirements of Utility. Meet requirements for traffic loading in paved areas.
- Refer to the C3.1 sheet notes for infiltration requirements.
- Combination fire and domestic services must be terminated with a thread on flange or an MJ to flange adapter.
- Contractor shall obtain a Public Works permit for underground work within the right-of-way. The permit is required prior to removals or installation. Contact Utilities at (952) 563-4568 for permit information.
- Utility permits are required for connection to the public storm, sanitary, and water system. Contact Utilities at (952) 563-8777 for permit information.
- All components of the water system, up to the water meter or fire service equipment must utilize protective internal coatings meeting current ANSI/AWWA standards for cement mortar lining or special coatings. The use of unlined or uncoated pipe is not allowed.
- Utility and mechanical contractors must coordinate the installation of all water and sewer service pipes into the building to accommodate city inspection and testing.
- A minimum 8 mil polywrap is required on all DIP.
- Utility as-builts must be provided prior to issuance of Certificate of Occupancy.
- HDPE pipe connections into all concrete structures must be made with water tight materials utilizing an A-Lok or WaterStop gasket or bolt, cast-in-place rubber boot, or approved equal. Where the alignment precludes the use of the above approved watertight methods, Conesal 231 WaterStop sealant, or approved equal will only be allowed as approved by the Engineer.
- Proposed location of salvaged electric manhole.

UTILITY CROSSINGS

- | | |
|---|--|
| 1 | Crossing 1
Storm Sewer Inv. = 823.44
Watermain Top = 821.02
Clearance = 2.42' |
| 2 | Crossing 2
Storm Sewer Inv. = 824.16
Watermain Top = 821.04
Clearance = 3.12' |
| 3 | Crossing 3
Storm Sewer Inv. = 820.85
Watermain Top = 820.79
Clearance = 0.06'
CONFLICT - LOWER WATERMAIN |
| 4 | Crossing 4
Storm Sewer Inv. = 825.49
Sanitary Sewer Top = 619.42
Clearance = 6.07' |
| 5 | Crossing 5
Watermain Inv. = 820.78
Sanitary Sewer Top = 619.92
Clearance = 1.86' |
| 6 | Crossing 6
Storm Sewer Inv. = 826.37
Watermain Top = 822.76
Clearance = 3.61' |



Know what's Below.
Call before you dig.



NORTH



0 30 60

DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8800 - FAX (952) 258-8900

MUNICIPALITY



PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

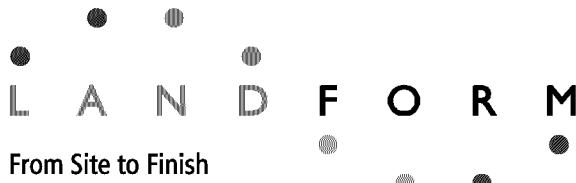
CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED REVERSED. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL

09.09.2024



From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME C401LUT061.DWG

PROJECT NO. LUT23061

UTILITIES

C4.1



NO SCALE



NO SCAL



NO SCAI



NO SCAI



NO SCALE



NO SCALE



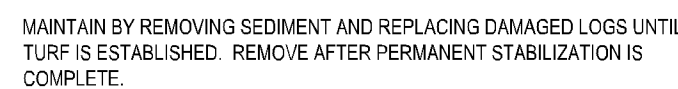
NO SCALE



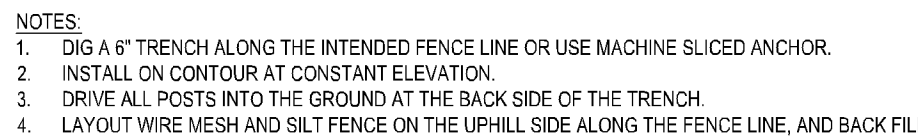
NO SCALE



NO SCALE



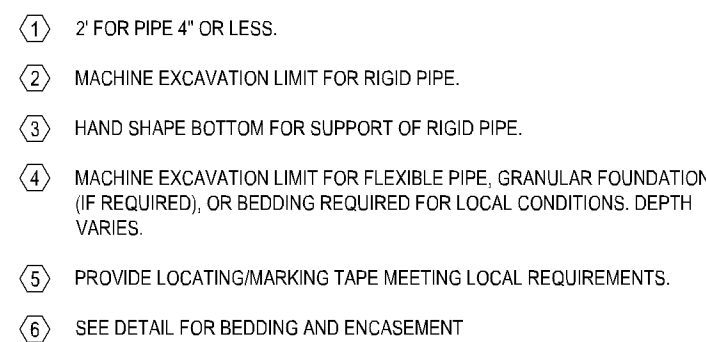
NO SCALE



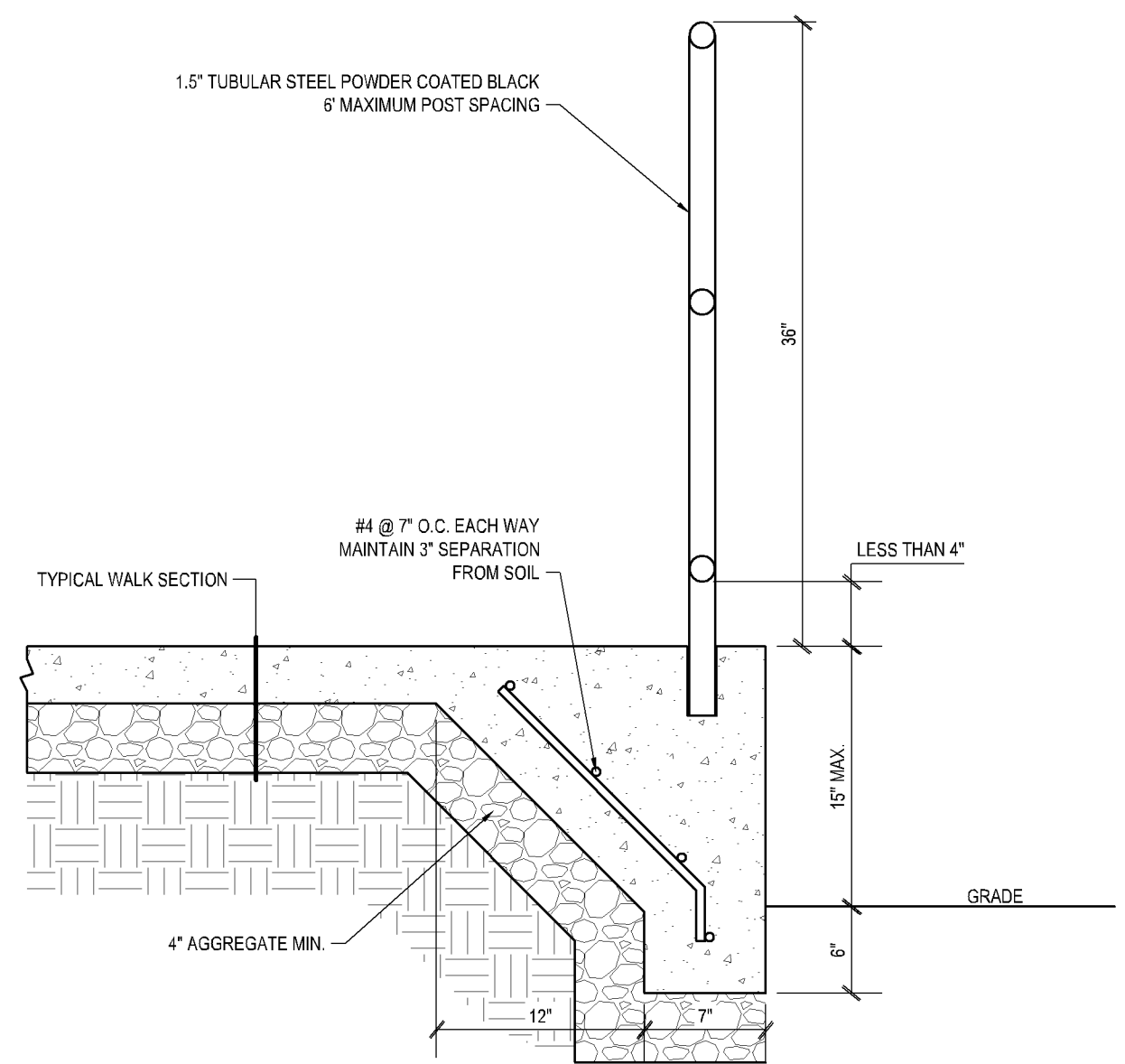
NO SCALE



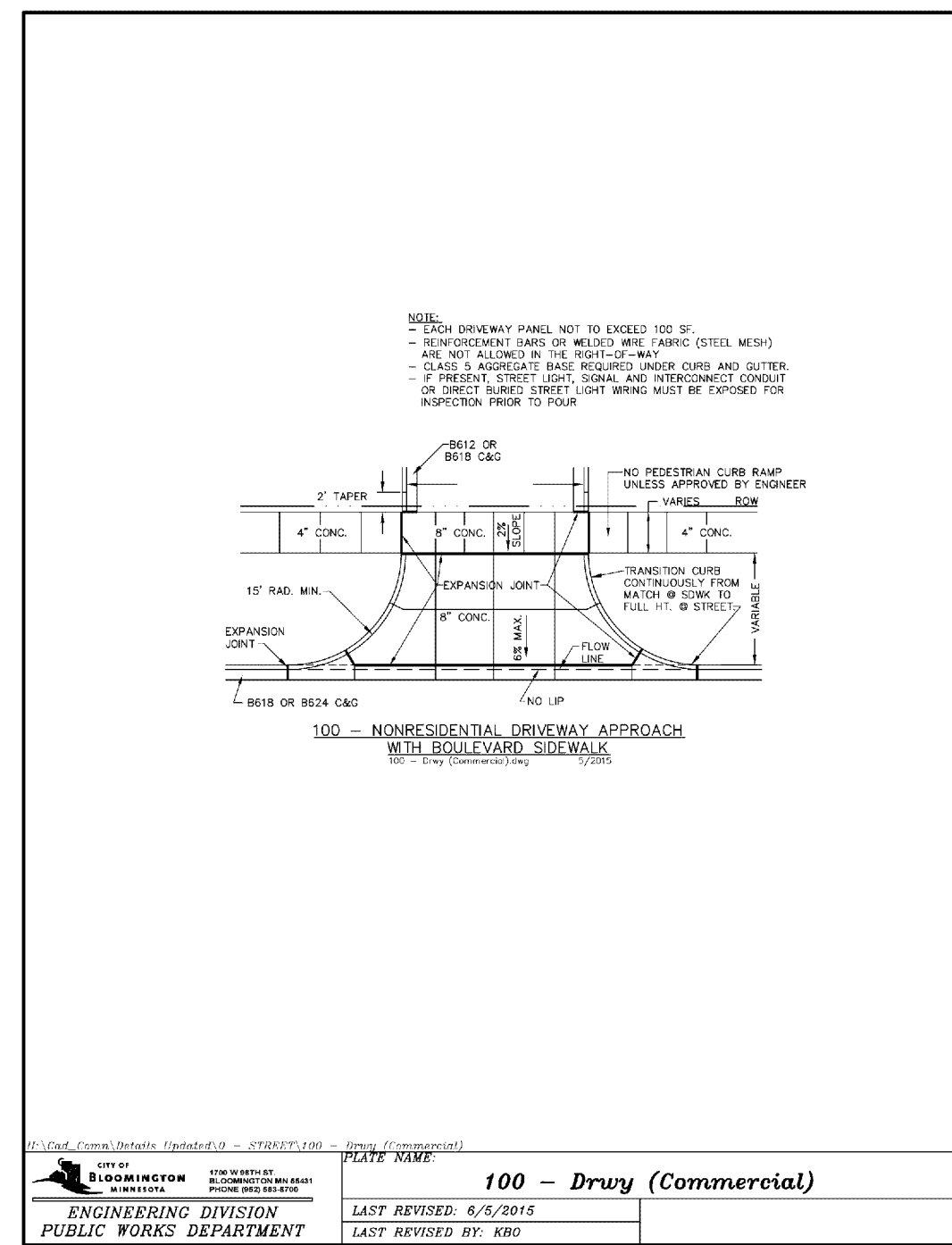
NO SCALE



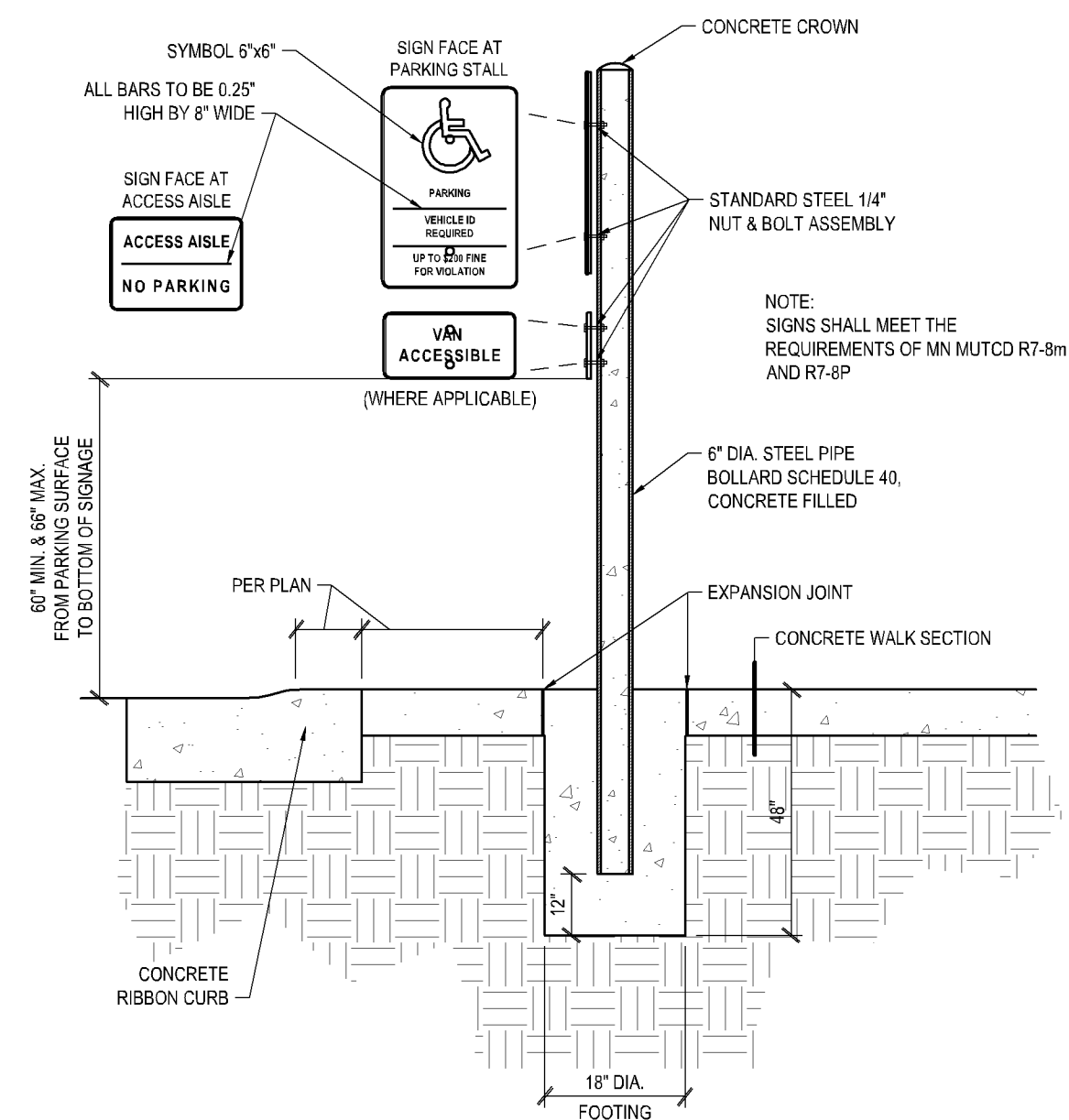
NO SCALE



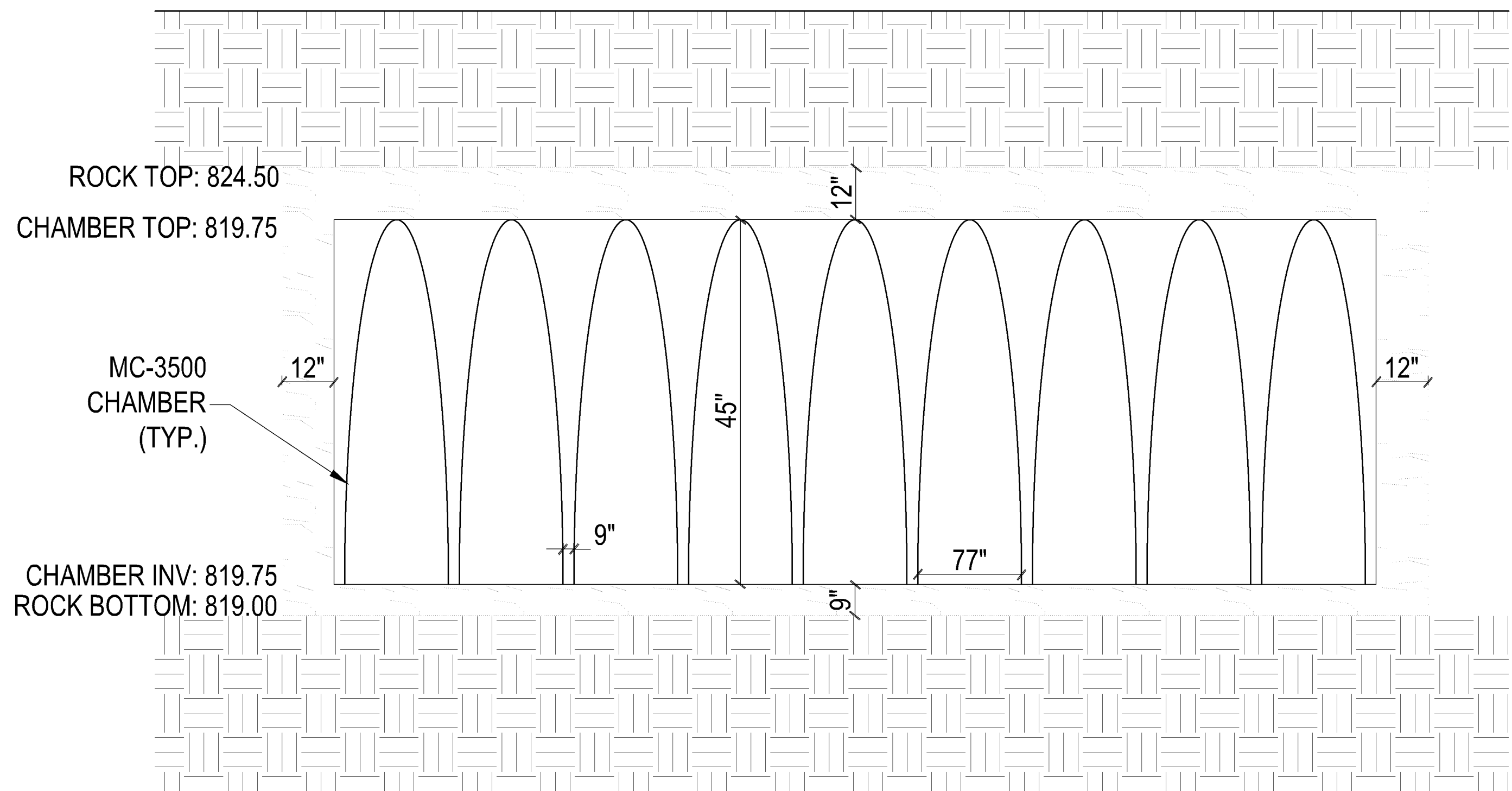
6 RETAINING WALK WITH RAILING



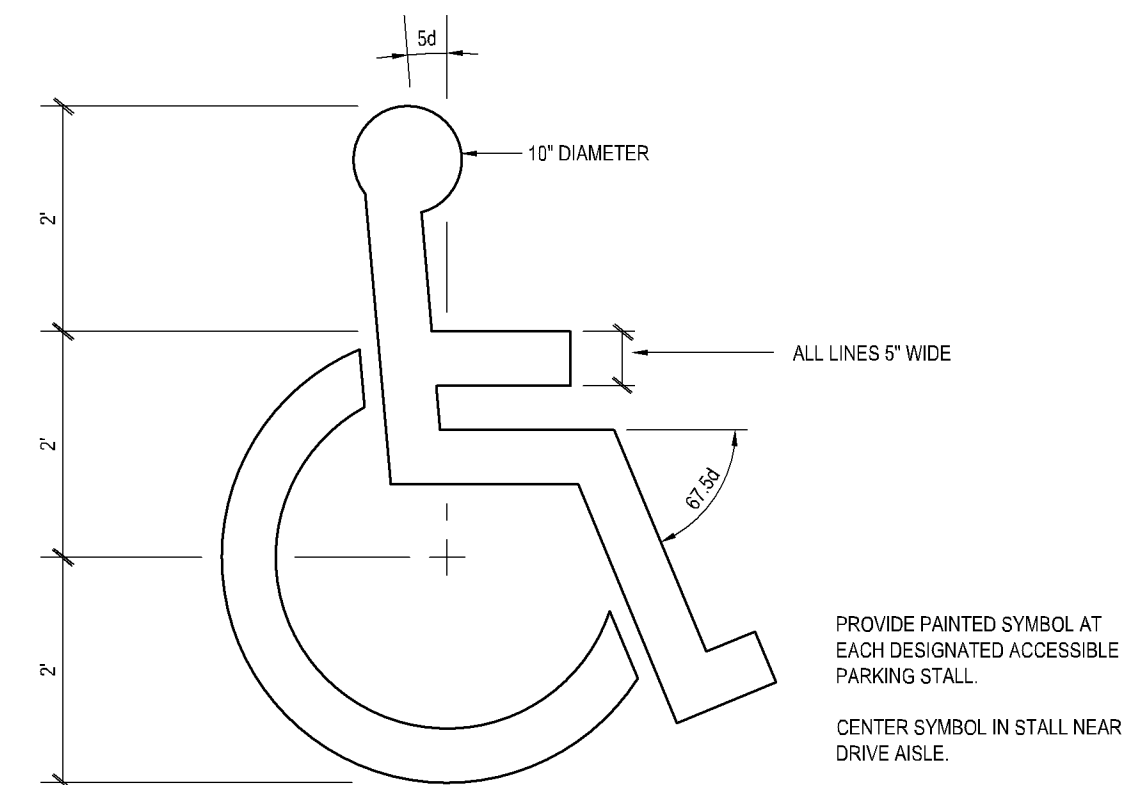
4 COMMERCIAL DRIVEWAY
CITY OF BLOOMINGTON NO SCALE



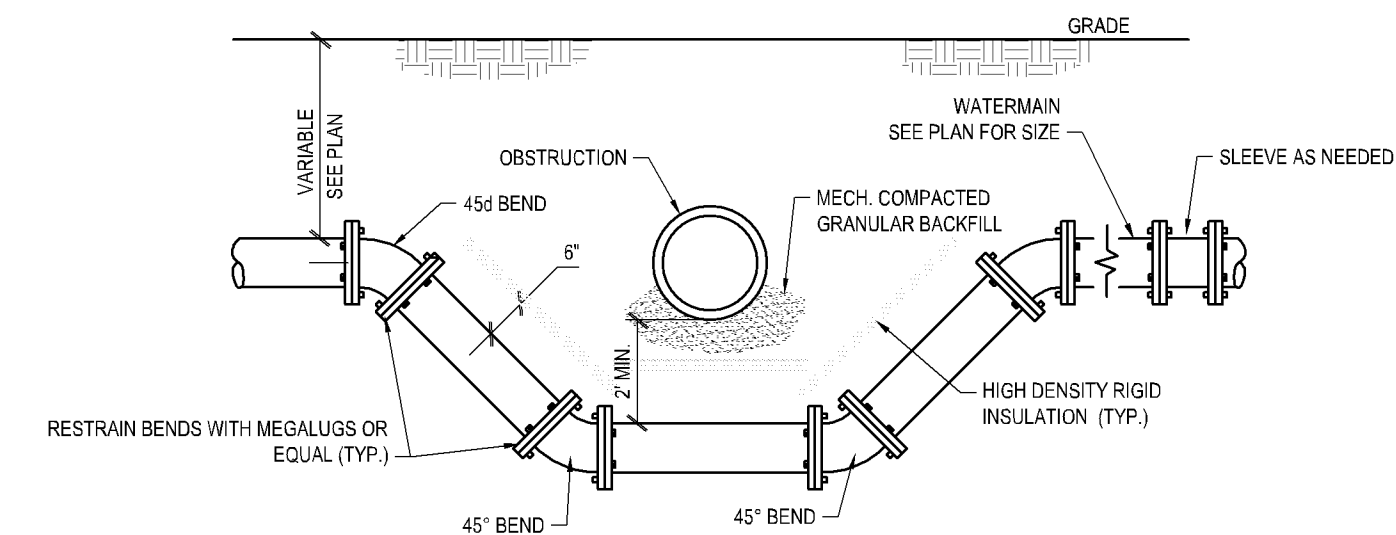
1 PIPE BOLLARD/ACCESSIBLE SIGN - MN NO SCALE



5 UNDERGROUND INFILTRATION SYSTEM



2 INTERNATIONAL SYMBOL OF ACCESS



1. USE MEGALUG THRUST RESTRAINTS ON ALL FITTINGS.
2. ON NEW CONSTRUCTION: RESTRAIN A MINIMUM OF TWO PIPE JOINTS (40 LF) LEFT AND RIGHT OF THE LOWERING.
3. ANTI CORROSIVE COATING REQUIRED ON ALL BOLT AND RESTRAINT ASSEMBLIES.
4. INSTALL POLYETHYLENE FILM WRAP AROUND ALL PIPE INCLUDING IN THE LOWERING.
5. INSULATION SHALL BE OF 1" OR 2" THICK BOARDS OF EXTRUDED OR EXPANDING POLYSTYRENE PLASTIC FOAM SPECIFICALLY DESIGNED FOR USE IN UNDERGROUND CONSTRUCTION AND HAVING A MINIMUM COMPRESSIVE STRENGTH OF 10 PSI. SPECIAL NOTE IS TO BE TAKEN THAT THIS TYPE IS DIFFERENT THAN THE TYPE USED IN ORDINARY BUILDING CONSTRUCTION. THE INSULATION BOARD SHALL COMPLY WITH ASTM D1621.

3 WATERMAIN LOWERING WITH INSULATION

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952)258-8800 - FAX (952) 258-8900



B L O O M I N G T O N

**LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN**

CONTACT ENGINEER FOR ANY PRIOR HISTORY		
DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRC SUBMITTAL	SE
05 AUG 2024	CLIENT REVIEW	SE
14 AUG 2024	CITY SUBMITTAL	SE
09 SEP 2024	CITY RESUBMITTAL	SE

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

LAND FORM
From Site to Finish

105 South Fifth Avenue Tel: 612-252-9071
Suite 513 Fax: 612-252-9072
Minneapolis, MN 55401 Web: landform.net

FILE NAME	C702LUT061.DWG
PROJECT NO.	LUT23061

CIVIL CONSTRUCTION DETAILS

C7.2

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRC SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
09 SEP 2024	CITY RESUBMITTAL	SES

1. For construction Staking and Surveying services contact Landform at 612.252.9070

1. For construction Staking and Surveying services contact Landform at 612.252.9070

2. Contact Utility Service providers for field location of services 72 hours prior to beginning

3. Coordinate installation with Contractors performing related work.
4. Reserved.
5. Reserved.
6. Reserved.
7. Import site topsoil for all sod areas. Spread topsoil to a minimum depth of (4) inches over all proposed sod areas. Coordinate with grading contractor to ensure final design grades are met.
8. Repair any and all areas disturbed beyond the project area. Repair with seed if existing area is unmowed or unmanicured grass. Rake area to be repaired and add topsoil as defined in Note 7 prior to final sod or seed repair.
9. Planting soil shall consist of 4 parts loam soil to 1 part peat humus, with 3 pounds of commercial fertilizer added per cubic yard. See planting details for design of planting soil.
10. Place plants according to layout with proper nominal spacing. Plants shown on Plant Schedule are for this sheet only. For discrepancy between the number of plants on the Schedule and the number shown on the Drawing, the Drawing shall govern.
11. Plant material shall conform to the American Association of Nurserymen Standards and be of hardy stock, free from disease, infestation, damage, and disfigurement. The Landscape Architect or designated representative reserves the right to reject any plant material not meeting these standards at the Contractor's cost.
12. Any substitutions of plant genus, species and/or variety, or planting sizes shall be approved by Landscape Architect of record prior to purchase and installation.
13. Reserved.
14. Edge planting beds with 5-inch, 2" thick, black, commercial grade steel edging (Star-Loc or approved equal) except where adjacent to curbing, walks or buildings.
15. Install 4 inch depth of triple-shredded hardwood mulch in Shrub Bed Areas.
16. Install 2 to 3 inch depth of triple-shredded hardwood mulch in Perennial Bed Areas.
17. Install a 4-foot diameter triple-shredded hardwood mulch around trees not placed within a Shrub or Perennial Planting Bed. Edging is not required.
18. Install 2 to 3 inch (nominal size) grey trap rock to a depth of 4 inches in all planting beds unless noted otherwise. Landscape fabric shall be installed under all areas of rock mulch. Seal all edges and seams of fabric with 6-inch landscape staples.
19. All existing diseased/confemuric trees are to be. Secured all dead wood and pruned to a natural uniform shape.
20. Irrigation is required. Irrigation shall be designed by irrigation contractor. Contractor shall submit design plan and all shop drawings and system components to Landscape Architect for review, prior to purchase and installation. Contractor shall follow all applicable codes and obtain all necessary permits from local jurisdiction.
21. All plant material shall have a 1-year warranty. The warranty shall begin after the last plant has been installed and the Landscape Architect has approved the installation. Landscape contractor is responsible for replacing any and all plant material that dies during the warranty period. Landscape contractor shall assume all costs to any replacements. All replacements shall be same species, sizes and equal or better vigor as original installation.

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	MATURE SIZE	PLANTING SIZE	ROOT CONDITION
--------	------	-----	-------------------------	-------------	---------------	----------------

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	MATURE SIZE	PLANTING SIZE	ROOT CONDITION
--------	------	-----	-------------------------	-------------	---------------	----------------

	•	ACER	24	Acer rubrum 'Frankred' / Red Sunset® Maple	40' H x 30' W	2.5" CAL.	B & B
	•	GINK	28	Ginkgo biloba 'Princeton Sentry' / Princeton Sentry Ginkgo	40' H x 30' W	2.5" Cal	B & B
	•	GTSK	23	Gleditsia triacanthos 'Skyline' / Skyline Honeylocust	40' H x 30' W	2.5" Cal	B & B
	•	QUWA	12	Quercus x warrlei 'Regal Prince' / Regal Prince Oak	50' H x 25' W	2.5" CAL.	B & B

	PIAB	7	<i>Picea abies</i> / Norway Spruce	50'H x 30'W	6' Ht.	B & B
	PIDE	8	<i>Picea glauca</i> "Densata" / Black Hills Spruce	45'H x 20'W	8' HT	B & B

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

LAND FORM
From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME L201LUT061.DWG

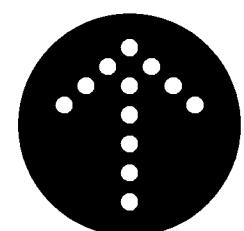
PROJECT NO. LUT23061

TREE PLAN

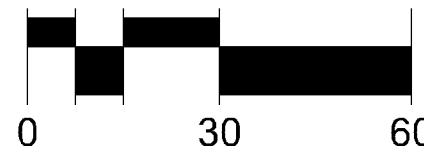
L2.1

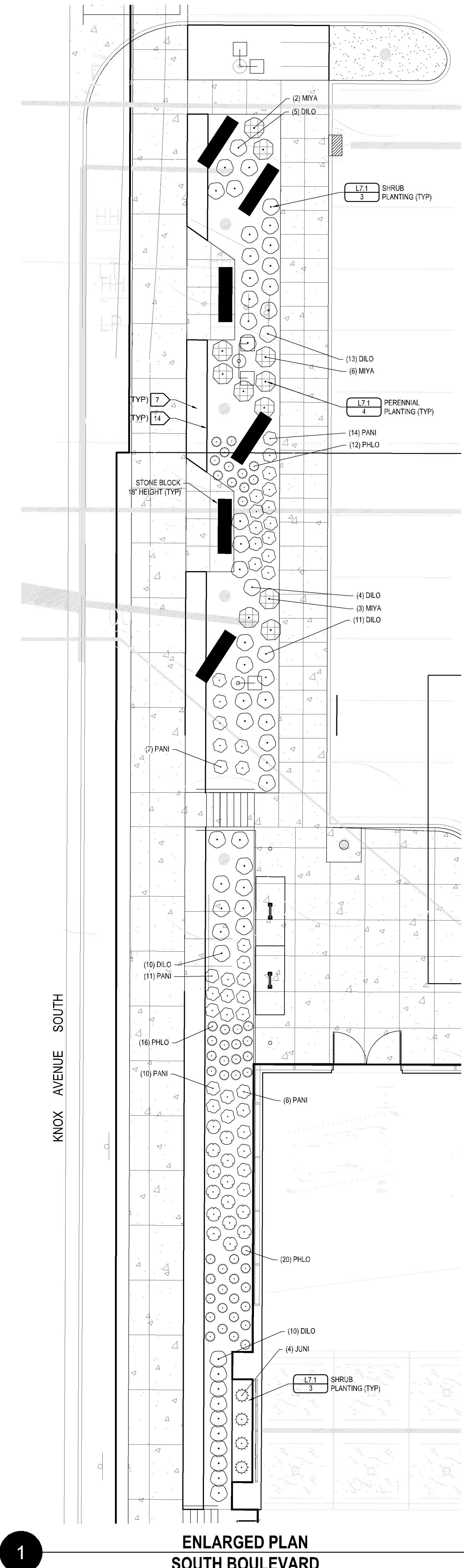


Know what's **Below.**
Call before you dig

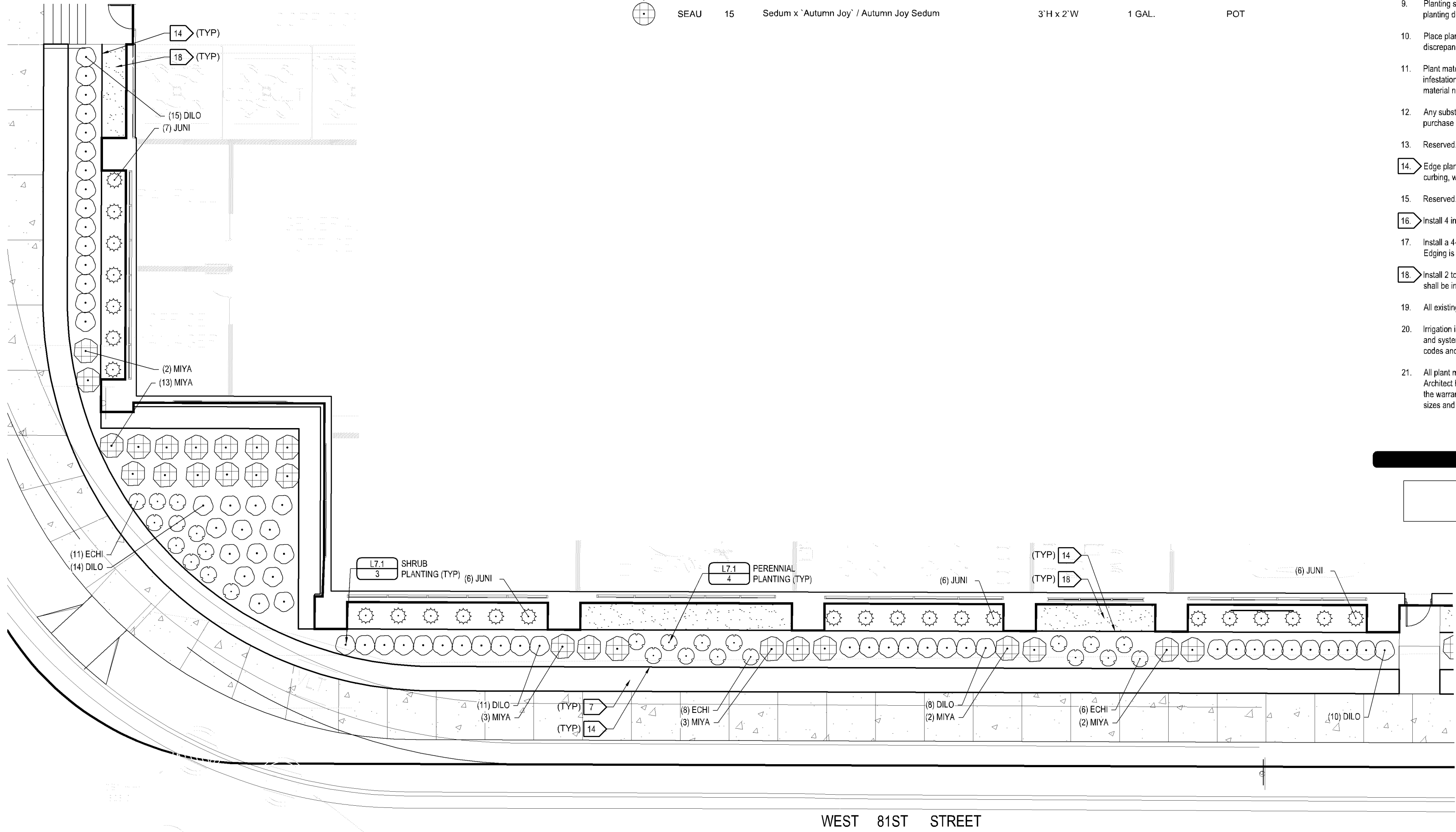


NORTH

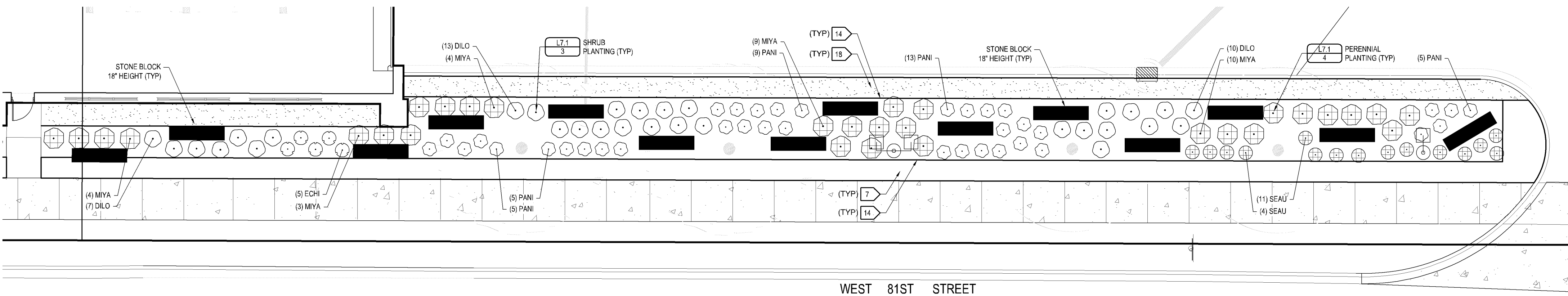




ENLARGED PLAN
SOUTH BOULEVARD



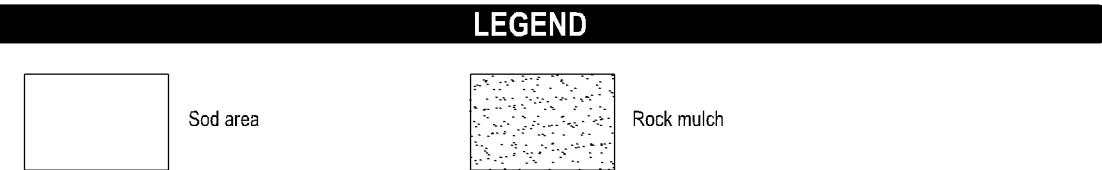
ENLARGED PLAN
SOUTH BOULEVARD



ENLARGED PLAN
SOUTH BOULEVARD

PLANT SCHEDULE - NORTH BOULEVARD						
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	MATURE SIZE	PLANTING SIZE	ROOT CONDITION
SHRUBS						
	DILO	141	Diervilla lonicera / Dwarf Bush Honeysuckle	4'H x 3'W	#3 Cont.	POT
	JUNI	29	Juniperus scopulorum "Blue Arrow" / Blue Arrow Juniper	12'H x 2'W	3 GAL.	POT
GRASSES						
	MIYA	66	Miscanthus sinensis "Yaku Jima" / Yaku Jima Dwarf Maiden Grass	4'H x 4'W	1 GAL.	POT
	PANI	79	Panicum virgatum "Northwind" / Northwind Switch Grass	4'H x 2'W	1 GAL.	POT
PERENNIALS						
	ECHI	44	Echinacea purpurea / Purple Coneflower	3'H x 3'W	1 GAL.	POT
	PHLO	48	Phlox pilosa / Downy Phlox	2'H x 2'W	1 GAL.	POT
	SEAU	15	Sedum x "Autumn Joy" / Autumn Joy Sedum	3'H x 2'W	1 GAL.	POT

- GENERAL NOTES
- LANDSCAPE NOTES
- For construction Staking and Surveying services contact Landform at 612.252.9070.
 - Contact Utility Service providers for field location of services 72 hours prior to beginning.
 - Coordinate installation with Contractors performing related work.
 - Reserved.
 - Reserved.
 - Reserved.
 - Import off site topsoil for all sod areas. Spread topsoil to a minimum depth of (4) inches over all proposed sod areas. Coordinate with grading contractor to ensure final design grades are met.
 - Repair any and all areas disturbed beyond the project area. Repair with sod if existing area is manicured turf. Repair with seed if existing area is unmowed or unmanicured grass. Reas area to be repaired and add topsoil as defined in Note 7 prior to final sod or seed repair.
 - Planting soil shall consist of 4 parts topsoil to 1 part peat humus, with 3 pounds of commercial fertilizer added per cubic yard. See planting details for depth of planting soil.
 - Place plants according to layout with proper nominal spacing. Plants shown on Plant Schedule are for this sheet only. For discrepancy between the number of plants on the Schedule and the number shown on the Drawing, the Drawing shall govern.
 - Plant material shall conform to the American Association of Nurserymen Standards and be of hardy stock, free from disease, infestation, damage, and disfigurement. The Landscape Architect or designated representative reserves the right to reject any/all plant material not meeting these standards at the Contractor's cost.
 - Any substitutions of plant genus, species and/or variety, or planting size shall be approved by Landscape Architect of record prior to purchase and installation.
 - Reserved.
 - Edge planting beds with 5-inch, 1/2" thick, black, commercial grade steel edging (Sur-Loc or approved equal) except where adjacent to curbing, walks or buildings.
 - Reserved.
 - Install 4 inch depth of triple-shredded hardwood mulch in planting bed areas.
 - Install a 4-foot diameter triple-shredded hardwood mulch dish around trees not placed within a Shrub or Perennial Planting Bed. Edging is not required.
 - Install 2 to 3 inch (nominal size) grey trap rock to a depth of 4 inches in all planting beds unless noted otherwise. Landscape fabric shall be installed under all areas of rock mulch. Secure all edges and seams of fabric with 6-inch landscape staples.
 - All existing deciduous/coniferous trees are to be trimmed of dead wood and pruned to a natural uniform shape.
 - Irrigation is required. Irrigation shall be designed by irrigation contractor. Contractor shall submit design plan and all shop drawings and system components to Landscape Architect for review, prior to purchase and installation. Contractor shall follow all applicable codes and obtain all necessary permits from local jurisdiction.
 - All plant material shall have a 1-year warranty. The warranty shall begin after the last plant has been installed and the Landscape Architect has approved the installation. Landscape contractor is responsible for replacing any and all plant material that dies during the warranty period. Landscape contractor shall assume all costs to any replacements. All replacements shall be same species and sizes and equal or better vigor as original installation.



DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8800 - FAX (952) 258-8900

MUNICIPITY

BLOOMINGTON

PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	CONTACT ENGINEER FOR ANY PRIOR HISTORY	REVIEW
07 FEB 2024	ORC SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED WITHOUT INTENTIONED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

LANDFORM

From Site to Finish

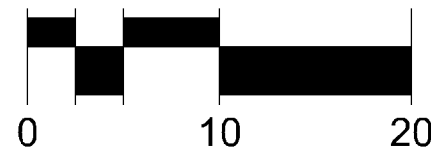
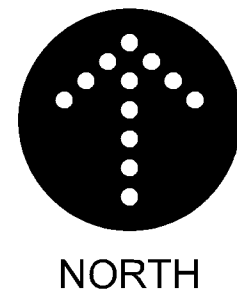
105 South Fifth Avenue Tel: 612-252-9070
Suite 513 Fax: 612-252-9077
Minneapolis, MN 55401 Web: landform.net

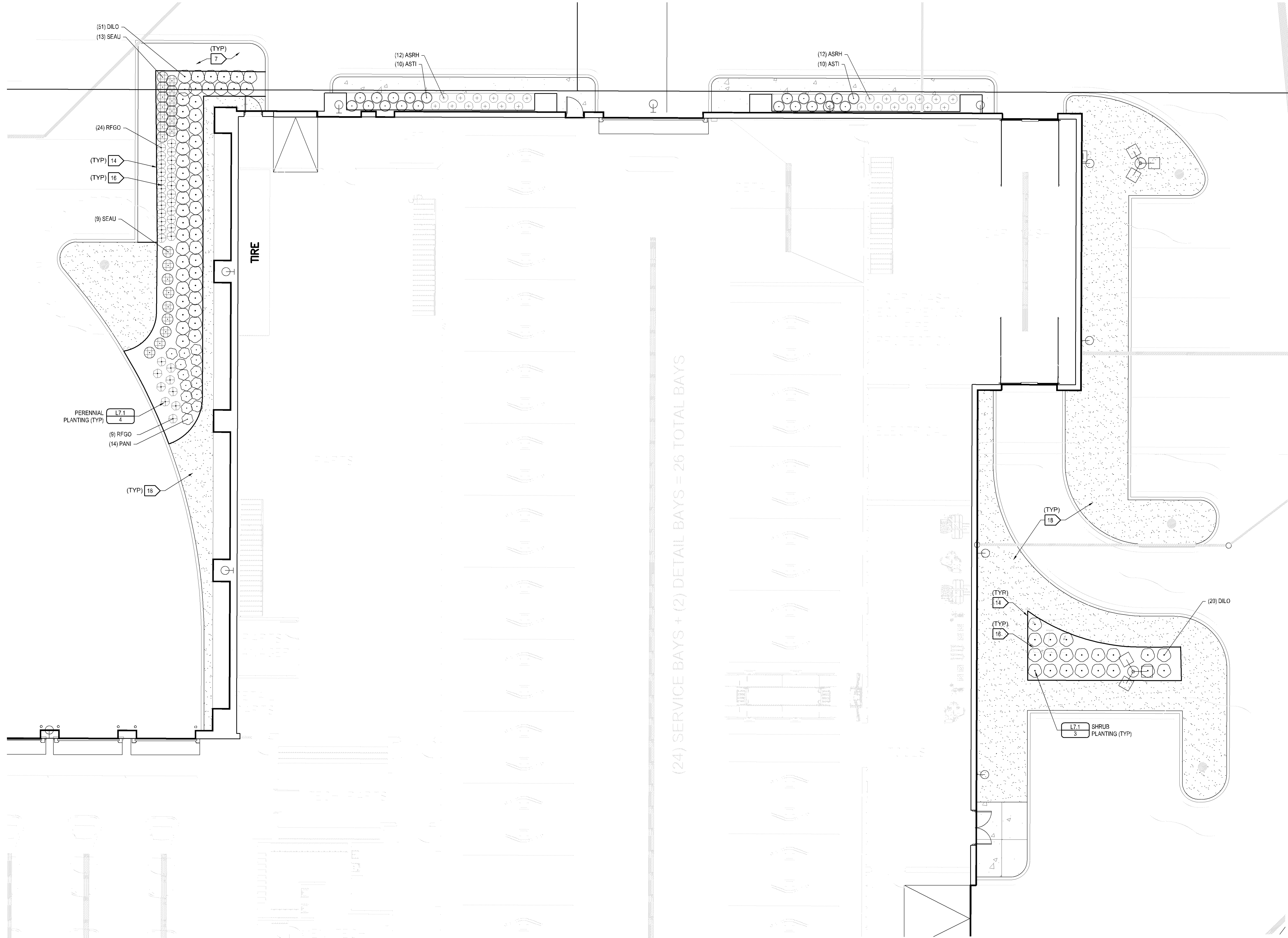
FILE NAME L201LUT061.DWG
PROJECT NO. LUT23061

LANDSCAPE PLAN
SOUTH BOULEVARD
L2.3



Know what's Below.
Call before you dig.





PLANT SCHEDULE - BUILDING

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	MATURE SIZE	PLANTING SIZE	ROOT CONDITION
SHRUBS						
	DILO	71	Diervilla lonicera / Dwarf Bush Honeysuckle	4'H x 3'W	#3 Cont.	POT
GRASSES						
	PANI	14	Panicum virgatum 'Northwind' / Northwind Switch Grass	4'H x 2'W	1 GAL.	POT
PERENNIALS						
	ASTI	20	Astilbe x arendsii 'Deutschland' / Deutschland False Spiraea	2'H x 2'W	1 GAL.	POT
	ASRH	24	Astilbe x arendsii 'Rheinland' / Rhineland False Spiraea	2'H x 2'W	1 GAL.	POT
	RFGO	33	Rudbeckia fulgida 'Goldstrum' / Black Eyed Susan	3'H x 2'W	1 GAL.	POT
	SEAU	22	Sedum x 'Autumn Joy' / Autumn Joy Sedum	3'H x 2'W	1 GAL.	POT

GENERAL NOTES

- For construction Staking and Surveying services contact Landform at 612.252.8070.
- Contact Utility Service providers for field location of services 72 hours prior to beginning.
- Coordinate installation with Contractors performing related work.
- Reserved.
- Reserved.
- Reserved.
- Import off site topsoil for all sod areas. Spread topsoil to a minimum depth of (4) inches over all proposed sod areas. Coordinate with grading contractor to ensure final design grades are met.
- Repair any and all areas disturbed beyond the project area. Repair with sod if existing area is manicured turf. Repair with seed if existing area is unmowed or unmaintained grass. Re-soil area to be repaired and add topsoil as defined in Note 7 prior to final sod or seed repair.
- Planting soil shall consist of 4 parts topsoil to 1 part peat humus, with 3 pounds of commercial fertilizer added per cubic yard. See planting details for depth of planting soil.
- Place plants according to layout with proper nominal spacing. Plants shown on Plant Schedule are for this sheet only. For discrepancy between the number of plants on the Schedule and the number shown on the Drawing, the Drawing shall govern.
- Plant material shall conform to the American Association of Nurserymen Standards and be of hardy stock, free from disease, infestation, damage, and disfigurement. The Landscape Architect or designated representative reserves the right to reject any/all plant material not meeting these standards at the Contractor's cost.
- Any substitutions of plant genus, species and/or variety, or planting size shall be approved by Landscape Architect of record prior to purchase and installation.
- Reserved.
- Edge planting beds with 54-inch, 1/2" thick, black, commercial grade steel edging (Sur-Loc or approved equal) except where adjacent to curbing, walks or buildings.
- Reserved.
- Install 4 inch depth of triple-shredded hardwood mulch in planting bed areas.
- Install a 4-foot diameter triple-shredded hardwood mulch dish around trees not placed within a Shrub or Perennial Planting Bed. Edging is not required.
- Install 2 to 3 inch (nominal size) grey trap rock to a depth of 4 inches in all planting beds unless noted otherwise. Landscape fabric shall be installed under all areas of rock mulch. Secure all edges and seams of fabric with 6-inch landscape staples.
- All existing deciduous/coniferous trees are to be trimmed of dead wood and pruned to a natural uniform shape.
- Irrigation is required. Irrigation shall be designed by irrigation contractor. Contractor shall submit design plan and all shop drawings and system components to Landscape Architect for review, prior to purchase and installation. Contractor shall follow all applicable codes and obtain all necessary permits from local jurisdiction.
- All plant material shall have a 1-year warranty. The warranty shall begin after the last plant has been installed and the Landscape Architect has approved the installation. Landscape contractor is responsible for replacing any and all plant material that dies during the warranty period. Landscape contractor shall assume all costs to any replacements. All replacements shall be same species and sizes and equal or better vigor as original installation.

LEGEND



DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952)258-8800 - FAX (952) 258-8900

MUNICIPALITY



PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

CONTACT ENGINEER FOR ANY PRIOR HISTORY		
DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	ORC SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

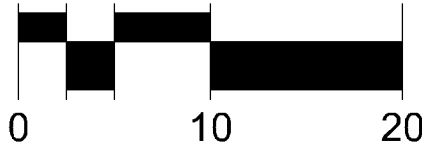
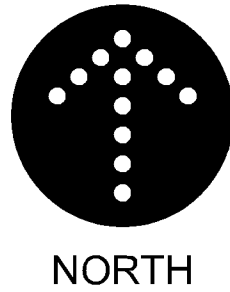
LANDFORM
From Site to Finish

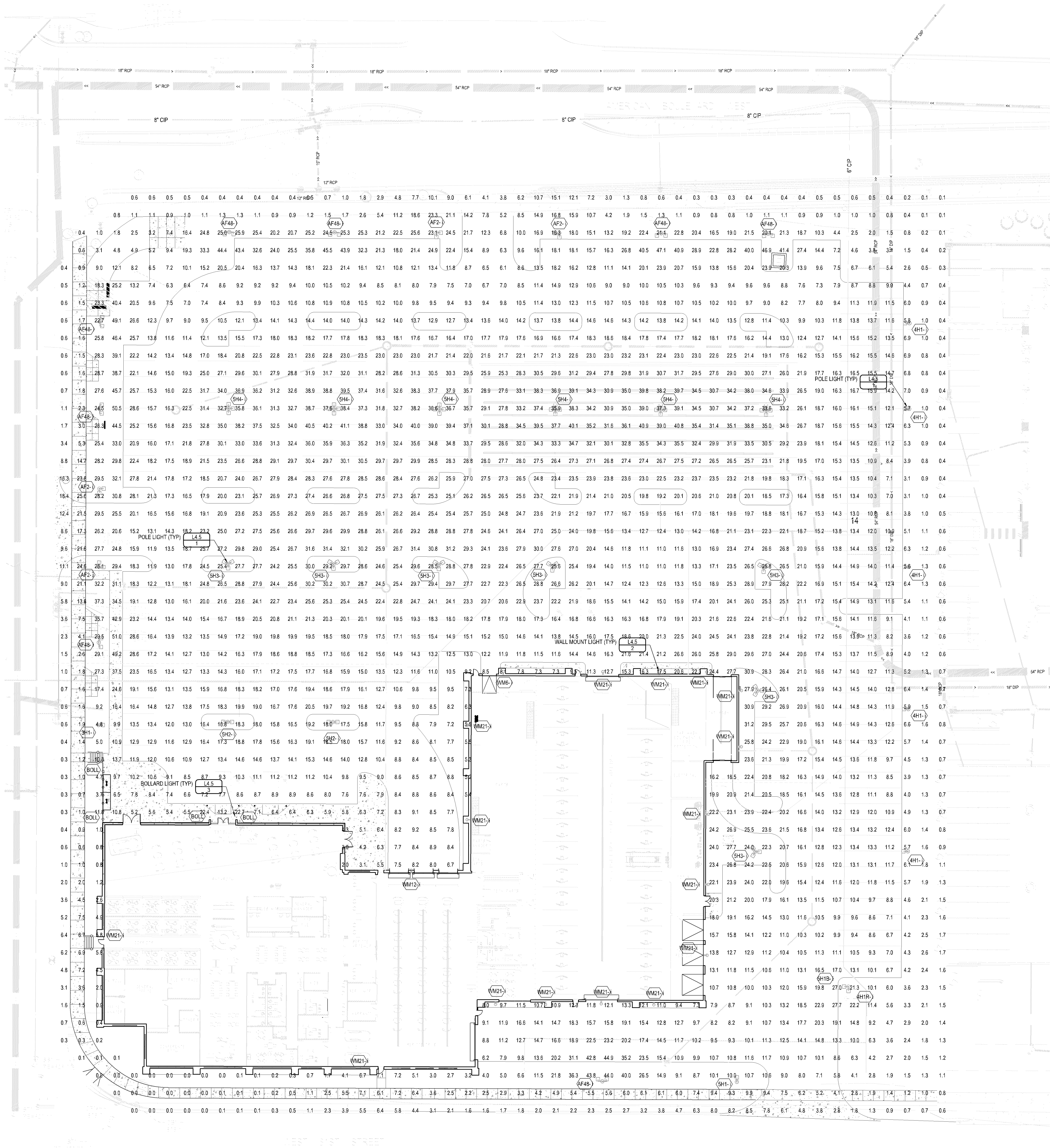
105 South Fifth Avenue Tel: 612-252-9070
Suite 513 Fax: 612-252-9077
Minneapolis, MN 55401 Web: landform.net

FILE NAME L204LUT061.DWG
PROJECT NO. LUT23061

LANDSCAPE PLAN
BUILDING

L2.4





GENERAL NOTES

- Coordinate with electrical contractor to provide conduits for site lighting.
 - Light pole base shall be designed and provided by others. All bases in green space shall be eight (8") inch height. All bases in pavement shall be thirty-six (36") inch height.
 - Mounting height listed in luminaire schedule includes height of light pole base.
 - Calculations based on LSI lighting fixtures. Any substitutions need to meet city code requirements.
- Existing light pole and luminaire.
- All existing light poles shall be replaced with bronze poles. All proposed light poles shall be bronze.
- Quantities shown are for this sheet only.

BLOOMINGTON CODE REQUIREMENTS

- 33' - maximum pole height
- 10:1 - maximum uniformity ratio (50% reduction for perimeter 25')
- 2.0 fc - minimum foot candles (pavement surface)
- 2.0 fc - maximum foot candles (at property line)
- 10.0 fc - minimum foot candles (primary building entrance/exit, radius of 2x door opening)
- 2.0 fc - minimum foot candles (secondary building entrance/exit, 5' radius)
- 3.0 fc - minimum foot candles (pedestrian access surface from primary building entrance, within 30')
- 2.0 fc - minimum foot candles (pedestrian access surface to primary building entrance, beyond 30')
- 4.0 fc - minimum foot candles (pedestrian crosswalk, 2x fc level of pavement)
- 50,000 maximum lumens (per single site source, initial lumens)

LEGEND



Luminaire callout

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	QUANTITY	MOUNTING	MODEL	MOUNTING HEIGHT
SH1-M		1	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-3-50-70CRI-IL	25'
4H1-M		5	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-4-50-70CRI-IL	25'
4H1R-M		1	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-RC-50-70CRI	25'
SH1B-M		1	POLE	LSI INDUSTRIES, INC., MRM-LED-36-SL-SW-50-70CRI	25'
SH1-M		1	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-SW-50-70CRI	25'
SH2-M		2	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-SW-50-70CRI	25'
SH3-M		7	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-SW-50-70CRI	25'
SH4-M		6	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-SW-50-70CRI	25'
AF2-M		4	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-FTA-50-70CRI-IL	25'
AF4B-M		16	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-FTA-50-70CRI-IL	25'
BOLL-M		4	POLE	LSI INDUSTRIES, INC., MRB-LED-30L-ACR-S-50-HSS	3'-6"
WM6-M		1	WALL	LSI INDUSTRIES, INC., XWM-4-LED-66L-50	18'

DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8900 - FAX (952) 258-8900

MUNICIPALITY



PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

LANDFORM
From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

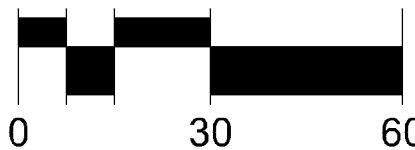
FILE NAME L401LUT061.DWG
PROJECT NO. LUT23061

PHOTOMETRICS
INITIAL VALUES

L4.1



NORTH



LEGEND

- Calculation Area Boundary
- EEE Luminaire callout

GENERAL NOTES

- Coordinate with electrical contractor to provide conduits for site lighting.
- Light pole base shall be designed and provided by others. All bases in green space shall be eight (8") inch height. All bases in pavement shall be thirty-six (36") inch height.
- Mounting height listed in luminaire schedule includes height of light pole base.
- Calculations based on LSI lighting fixtures. Any substitutions need to meet city code requirements.

CALCULATIONS

EAST PROPERTY LINE

AVERAGE FOOT-CANDLES	0.85
MAXIMUM FOOT-CANDLES	1.9
MINIMUM FOOT-CANDLES	0.1
MAXIMUM TO MINIMUM FC RATIO	0.05
MINIMUM TO MAXIMUM FC RATIO	21.3
AVERAGE TO MINIMUM FC RATIO	9.85

MAIN ENTRANCE 12' RADIUS

AVERAGE FOOT-CANDLES	18.13
MAXIMUM FOOT-CANDLES	20.8
MINIMUM FOOT-CANDLES	13.5
MAXIMUM TO MINIMUM FC RATIO	1.55
AVERAGE TO MINIMUM FC RATIO	1.35

25' PERIMETER ZONE

AVERAGE FOOT-CANDLES	17.52
MAXIMUM FOOT-CANDLES	43.1
MINIMUM FOOT-CANDLES	6
MAXIMUM TO MINIMUM FC RATIO	7.13
AVERAGE TO MINIMUM FC RATIO	2.9

FRONT PAVEMENT

AVERAGE FOOT-CANDLES	15.22
MAXIMUM FOOT-CANDLES	46.9
MINIMUM FOOT-CANDLES	2.3
MAXIMUM TO MINIMUM FC RATIO	20.14
AVERAGE TO MINIMUM FC RATIO	6.54

REAR PARKING

AVERAGE FOOT-CANDLES	16.41
MAXIMUM FOOT-CANDLES	35.4
MINIMUM FOOT-CANDLES	4
MAXIMUM TO MINIMUM FC RATIO	8.83
AVERAGE TO MINIMUM FC RATIO	4.1

FRONT PARKING

AVERAGE FOOT-CANDLES	20.63
MAXIMUM FOOT-CANDLES	40.5
MINIMUM FOOT-CANDLES	4.3
MAXIMUM TO MINIMUM FC RATIO	9.35
AVERAGE TO MINIMUM FC RATIO	4.76

PRIMARY ENTRANCE

AVERAGE FOOT-CANDLES	10.1
MAXIMUM FOOT-CANDLES	21.1
MINIMUM FOOT-CANDLES	5.2
MAXIMUM TO MINIMUM FC RATIO	4.05
AVERAGE TO MINIMUM FC RATIO	1.93

DOOR 2

AVERAGE FOOT-CANDLES	3.6
MAXIMUM FOOT-CANDLES	3.6
MINIMUM FOOT-CANDLES	3.6
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 3

AVERAGE FOOT-CANDLES	8.2
MAXIMUM FOOT-CANDLES	8.2
MINIMUM FOOT-CANDLES	8.2
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 4

AVERAGE FOOT-CANDLES	10.47
MAXIMUM FOOT-CANDLES	10.5
MINIMUM FOOT-CANDLES	10.5
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 5

AVERAGE FOOT-CANDLES	16.4
MAXIMUM FOOT-CANDLES	16.4
MINIMUM FOOT-CANDLES	16.4
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 6

AVERAGE FOOT-CANDLES	11.61
MAXIMUM FOOT-CANDLES	11.6
MINIMUM FOOT-CANDLES	11.6
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 7

AVERAGE FOOT-CANDLES	9.91
MAXIMUM FOOT-CANDLES	9.9
MINIMUM FOOT-CANDLES	9.9
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 8

AVERAGE FOOT-CANDLES	6.89
MAXIMUM FOOT-CANDLES	6.9
MINIMUM FOOT-CANDLES	6.9
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 9

AVERAGE FOOT-CANDLES	5.58
MAXIMUM FOOT-CANDLES	5.6
MINIMUM FOOT-CANDLES	5.6
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 10

AVERAGE FOOT-CANDLES	3.99
MAXIMUM FOOT-CANDLES	4
MINIMUM FOOT-CANDLES	4
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

CROSSWALK 1

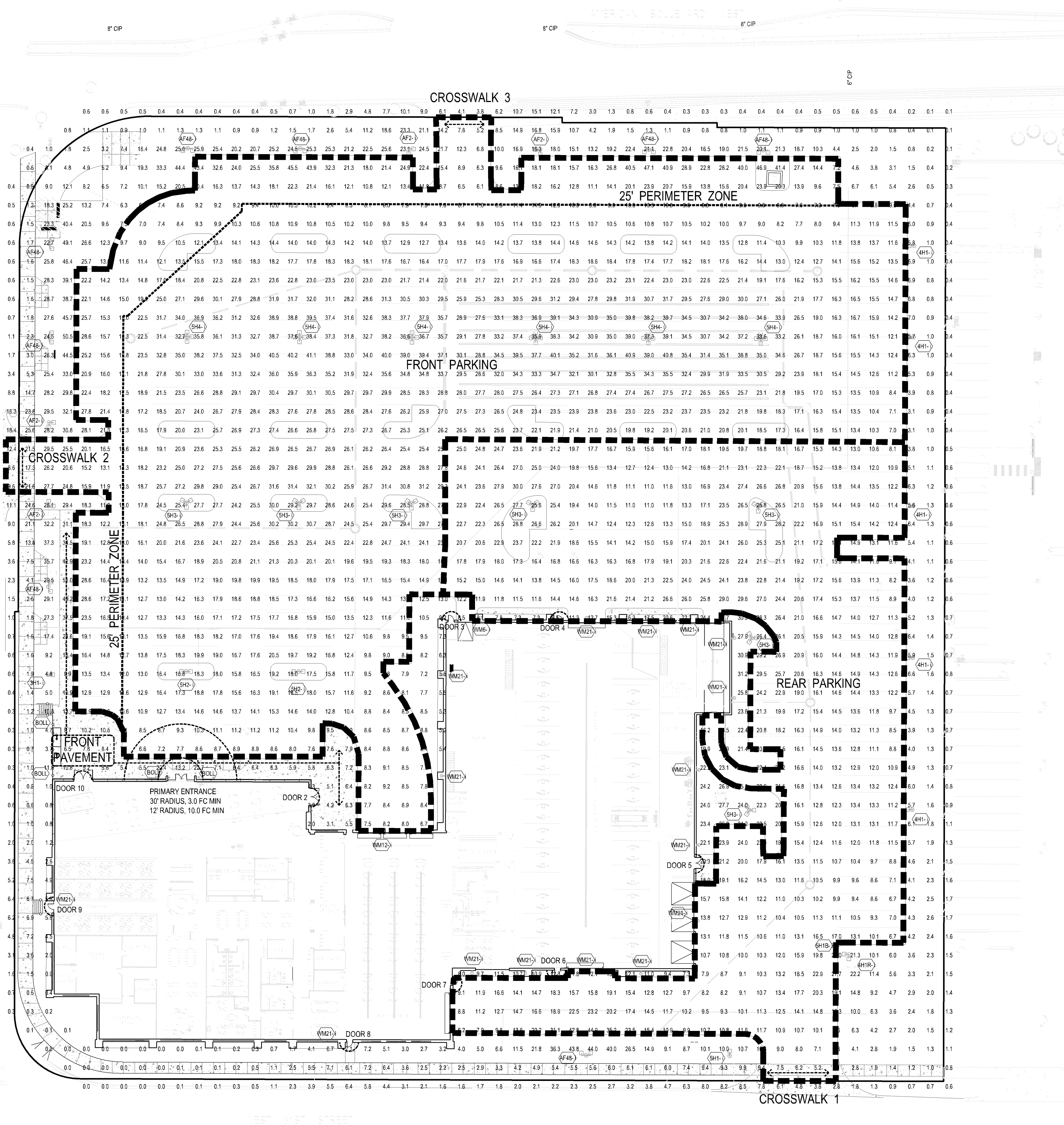
AVERAGE FOOT-CANDLES	6.83
MAXIMUM FOOT-CANDLES	9.8
MINIMUM FOOT-CANDLES	4
MAXIMUM TO MINIMUM FC RATIO	0.4
MINIMUM TO MAXIMUM FC RATIO	2.47
AVERAGE TO MINIMUM FC RATIO	1.68

CROSSWALK 2

AVERAGE FOOT-CANDLES	19.25
MAXIMUM FOOT-CANDLES	22.5
MINIMUM FOOT-CANDLES	16.7
MAXIMUM TO MINIMUM FC RATIO	0.74
MINIMUM TO MAXIMUM FC RATIO	1.35
AVERAGE TO MINIMUM FC RATIO	1.15

CROSSWALK 3

AVERAGE FOOT-CANDLES	6.54
MAXIMUM FOOT-CANDLES	8.8
MINIMUM FOOT-CANDLES	4.8
MAXIMUM TO MINIMUM FC RATIO	0.54
MINIMUM TO MAXIMUM FC RATIO	1.84
AVERAGE TO MINIMUM FC RATIO	1.35



DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952)258-8900 - FAX (952) 258-8900

MUNICIPALITY



BLOOMINGTON

PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED WITHOUT INTENTION.
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL

09.09.2024

LANDFORM
From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME L402LUT061.DWG

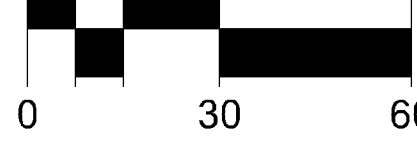
PROJECT NO. LUT23061

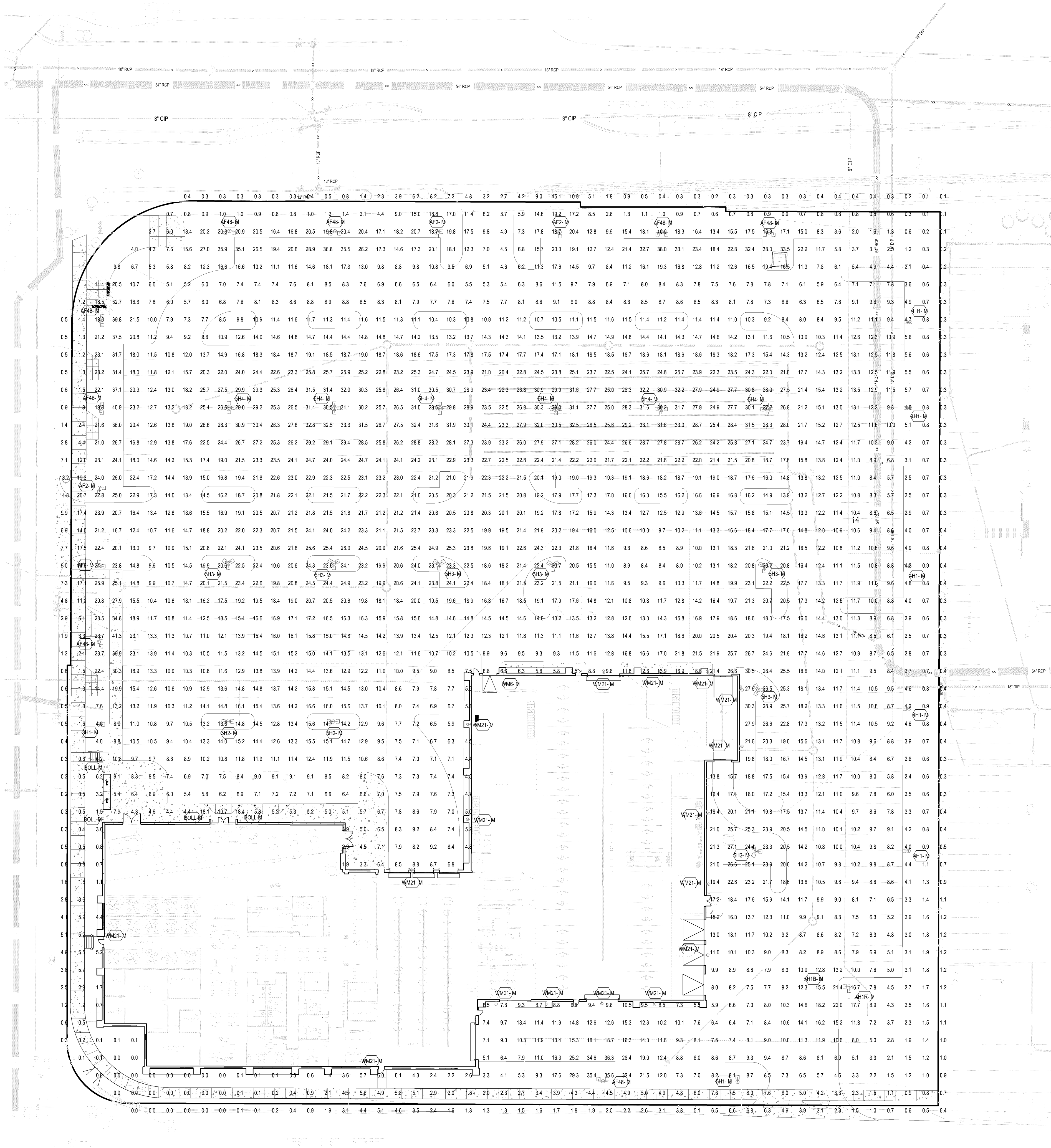
INITIAL VALUES
CALCULATIONS

L4.2



NORTH





GENERAL NOTES

- Coordinate with electrical contractor to provide conduits for site lighting.
 - Light pole base shall be designed and provided by others. All bases in green space shall be eight (8") inch height. All bases in pavement shall be thirty-six (36") inch height.
 - Mounting height listed in luminaire schedule includes height of light pole base.
 - Calculations based on LSI lighting fixtures. Any substitutions need to meet city code requirements.
- Existing light pole and luminaire.
- All existing light poles shall be replaced with bronze poles. All proposed light poles shall be bronze.
- Quantities shown are for this sheet only.

BLOOMINGTON CODE REQUIREMENTS

- 33' - maximum pole height
- 10:1 - maximum uniformity ratio (50% reduction for perimeter 25')
- 2.0 fc - minimum foot candles (pavement surface)
- 2.0 fc - maximum foot candles (at property line)
- 10.0 fc - minimum foot candles (primary building entrance/exit, radius of 2x door opening)
- 2.0 fc - minimum foot candles (secondary building entrance/exit, 5' radius)
- 3.0 fc - minimum foot candles (pedestrian access surface from primary building entrance, within 30')
- 2.0 fc - minimum foot candles (pedestrian access surface to primary building entrance, beyond 30')
- 4.0 fc - minimum foot candles (pedestrian crosswalk, 2x fc level of pavement)
- 50,000 maximum lumens (per single site source, initial lumens)

LEGEND



Luminaire callout

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	QUANTITY	MOUNTING	MODEL	MOUNTING HEIGHT
3H1-M		1	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-3-50-70CRI-IL	25'
4H1-M		5	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-4-50-70CRI-IL	25'
4H1R-M		1	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-RC-50-70CRI	25'
5H1B-M		1	POLE	LSI INDUSTRIES, INC., MRM-LED-36-SL-SW-50-70CRI	25'
5H1-M		1	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-SW-50-70CRI	25'
5H2-M		2	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-SW-50-70CRI	25'
5H3-M		7	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-SW-50-70CRI	25'
5H4-M		6	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-SW-50-70CRI	25'
AF2-M		4	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-FTA-50-70CRI-IL	25'
AF4B-M		16	POLE	LSI INDUSTRIES, INC., MRM-LED-48-SL-FTA-50-70CRI-IL	25'
BOLL-M		4	POLE	LSI INDUSTRIES, INC., MRB-LED-30L-ACR-S-50-HSS	3'-6"
WM6-M		1	WALL	LSI INDUSTRIES, INC., XWM-4-LED-50L-50	18'
WM21-M		18	WALL	LSI INDUSTRIES, INC., XWM-4-LED-21L-50	18'

DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8900 - FAX (952) 258-8900

MUNICIPALITY



PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

LANDFORM
From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME L403LUT061.DWG
PROJECT NO. LUT23061

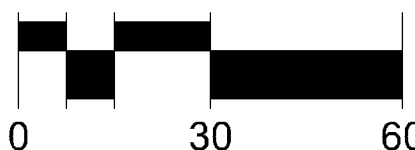
PHOTOMETRICS
MAINTAINED VALUES

L4.3



Know what's Below.
Call before you dig.

NORTH



LEGEND

----- Calculation Area Boundary

EEE Luminaire callout

GENERAL NOTES

- Coordinate with electrical contractor to provide conduits for site lighting.
- Light pole base shall be designed and provided by others. All bases in green space shall be eight (8") inch height. All bases in pavement shall be thirty-six (36") inch height.
- Mounting height listed in luminaire schedule includes height of light pole base.
- Calculations based on LSI lighting fixtures. Any substitutions need to meet city code requirements.

CALCULATIONS

EAST PROPERTY LINE

AVERAGE FOOT-CANDLES	0.58
MAXIMUM FOOT-CANDLES	1.4
MINIMUM FOOT-CANDLES	0.1
MINIMUM TO MAXIMUM FC RATIO	0.05
MAXIMUM TO MINIMUM FC RATIO	19.75
AVERAGE TO MINIMUM FC RATIO	8.28

MAIN ENTRANCE 12' RADIUS

AVERAGE FOOT-CANDLES	14.96
MAXIMUM FOOT-CANDLES	17.3
MINIMUM FOOT-CANDLES	10.9
MAXIMUM TO MINIMUM FC RATIO	1.59
AVERAGE TO MINIMUM FC RATIO	1.37

25' PERIMETER ZONE

AVERAGE FOOT-CANDLES	14.23
MAXIMUM FOOT-CANDLES	34.9
MINIMUM FOOT-CANDLES	4.8
MAXIMUM TO MINIMUM FC RATIO	7.57
AVERAGE TO MINIMUM FC RATIO	3.09

FRONT PAVEMENT

AVERAGE FOOT-CANDLES	10.27
MAXIMUM FOOT-CANDLES	36
MINIMUM FOOT-CANDLES	2.5
MAXIMUM TO MINIMUM FC RATIO	14.61
AVERAGE TO MINIMUM FC RATIO	4.17

REAR PARKING

AVERAGE FOOT-CANDLES	13.32
MAXIMUM FOOT-CANDLES	29.7
MINIMUM FOOT-CANDLES	3.2
MAXIMUM TO MINIMUM FC RATIO	9.2
AVERAGE TO MINIMUM FC RATIO	4.12

FRONT PARKING

AVERAGE FOOT-CANDLES	16.82
MAXIMUM FOOT-CANDLES	32.8
MINIMUM FOOT-CANDLES	3.2
MAXIMUM TO MINIMUM FC RATIO	10.18
AVERAGE TO MINIMUM FC RATIO	5.21

PRIMARY ENTRANCE

AVERAGE FOOT-CANDLES	7.94
MAXIMUM FOOT-CANDLES	17.1
MINIMUM FOOT-CANDLES	4.2
MAXIMUM TO MINIMUM FC RATIO	4.05
AVERAGE TO MINIMUM FC RATIO	1.88

DOOR 2

AVERAGE FOOT-CANDLES	3.53
MAXIMUM FOOT-CANDLES	3.5
MINIMUM FOOT-CANDLES	3.5
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 3

AVERAGE FOOT-CANDLES	6.81
MAXIMUM FOOT-CANDLES	6.8
MINIMUM FOOT-CANDLES	6.8
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 4

AVERAGE FOOT-CANDLES	8.33
MAXIMUM FOOT-CANDLES	8.3
MINIMUM FOOT-CANDLES	8.3
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 5

AVERAGE FOOT-CANDLES	14.16
MAXIMUM FOOT-CANDLES	14.2
MINIMUM FOOT-CANDLES	14.2
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 6

AVERAGE FOOT-CANDLES	10.78
MAXIMUM FOOT-CANDLES	10.8
MINIMUM FOOT-CANDLES	10.8
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 7

AVERAGE FOOT-CANDLES	8.09
MAXIMUM FOOT-CANDLES	8.1
MINIMUM FOOT-CANDLES	8.1
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 8

AVERAGE FOOT-CANDLES	5.1
MAXIMUM FOOT-CANDLES	5.1
MINIMUM FOOT-CANDLES	5.1
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 9

AVERAGE FOOT-CANDLES	5.06
MAXIMUM FOOT-CANDLES	5.1
MINIMUM FOOT-CANDLES	5.1
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

DOOR 10

AVERAGE FOOT-CANDLES	3.55
MAXIMUM FOOT-CANDLES	3.6
MINIMUM FOOT-CANDLES	3.6
MAXIMUM TO MINIMUM FC RATIO	1
AVERAGE TO MINIMUM FC RATIO	1

CROSSWALK 1

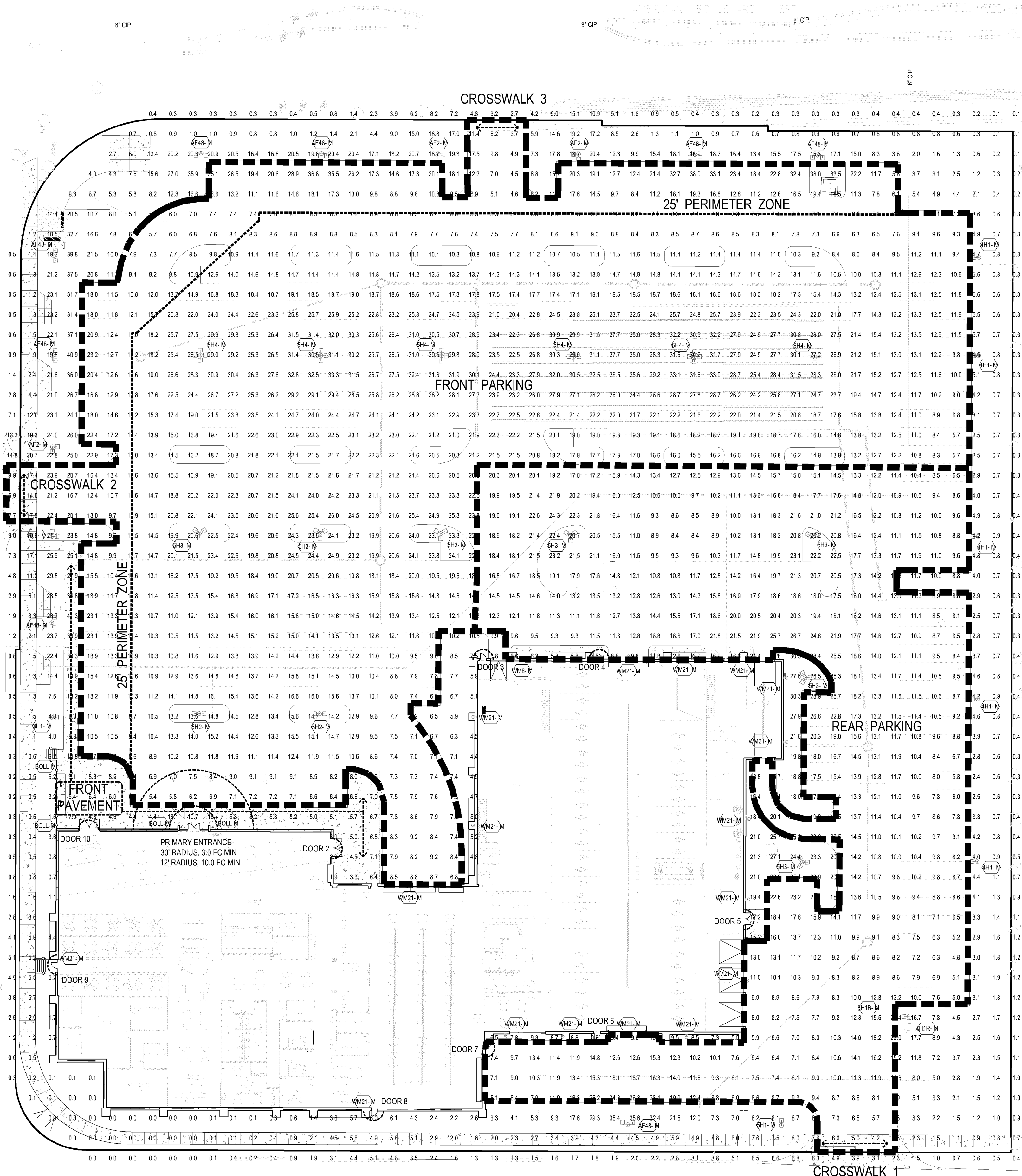
AVERAGE FOOT-CANDLES	5.43
MAXIMUM FOOT-CANDLES	7.7
MINIMUM FOOT-CANDLES	3.5
MINIMUM TO MAXIMUM FC RATIO	0.46
MAXIMUM TO MINIMUM FC RATIO	2.16
AVERAGE TO MINIMUM FC RATIO	1.53

CROSSWALK 2

AVERAGE FOOT-CANDLES	13.97
MAXIMUM FOOT-CANDLES	16.7
MINIMUM FOOT-CANDLES	12
MINIMUM TO MAXIMUM FC RATIO	0.72
MAXIMUM TO MINIMUM FC RATIO	1.39
AVERAGE TO MINIMUM FC RATIO	1.16

CROSSWALK 3

AVERAGE FOOT-CANDLES	5.44
MAXIMUM FOOT-CANDLES	8.9
MINIMUM FOOT-CANDLES	3.5
MINIMUM TO MAXIMUM FC RATIO	0.38
MAXIMUM TO MINIMUM FC RATIO	2.55
AVERAGE TO MINIMUM FC RATIO	1.55



DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952)258-8900 - FAX (952) 258-8900

MUNICIPALITY



PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED WITHOUT INTENTION.
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL
09.09.2024

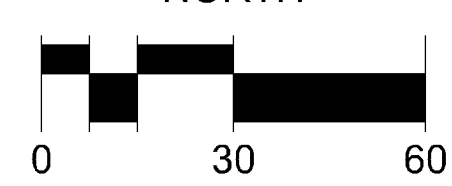
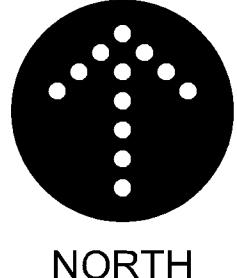
LANDFORM
From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME L404LUT061.DWG
PROJECT NO. LUT23061

MAINTAINED VALUES
CALCULATIONS
L4.4



3

LSI BOLLARD LIGHT

NO SCALE

2

LSI WALL MOUNT LIGHT

NO SCALE

1

LSI POLE LIGHT

NO SCALE

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT
VISIBLE, THIS SHEET HAS BEEN REPRODUCED WITHOUT INTENTION.
READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT
THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL

09.09.2024

LANDFORM
From Site to Finish

105 South Fifth Avenue Tel: 612-252-9070
Suite 513 Fax: 612-252-9077
Minneapolis, MN 55401 Web: landform.net

FILE NAME L40SLUT061.DWG

PROJECT NO. LUT23061

LUMINAIRES

L4.5

DEVELOPER

THE LUTHER COMPANY, LLLP.

3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8800 - FAX (952) 258-8900

MUNICIPALITY



BLOOMINGTON

PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	DRG SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES



Catalog #: _____ Project: _____
Prepared By: _____ Date: _____ Type: _____

Mirada Bollard (MRB)
Low Level Lighting



OVERVIEW	
Lumen Package	1,000 - 3,000
Wattage Range	23 - 38
Efficacy Range (LPW)	72 - 84
Weight lbs (kg)	40 (18)

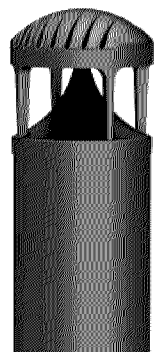
FEATURES & SPECIFICATIONS

Construction

- Precision 2pc die-cast aluminum head maintains durability and consistency while providing vandal resistance, effective heat dissipation, and superior aesthetics.
- 8-5/8" OD one-piece extruded aluminum heavy wall .322 inch thick seamless shaft. Various heights are available in 6" increments starting at a minimum of 26" (maximum height is 62").
- Lower housing attaches to cast aluminum universal base plate with four stainless steel roll pins. Accommodates 4.5" - 6" bolt circles.
- Optional roughneck zinc plated steel base plate (.375" thick) with welded U shaped reinforcement, 3/8" diameter 302 stainless steel roll pins with 10,000 lb. shear load.
- IP66 rated Optical and Driver compartment protects integral components from harsh environments.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Luminaire is proudly manufactured in the U.S. of U.S. and imported parts.
- Shipping weight: 40 lbs in carton.
- Optical System**
 - Available in two optical distributions, symmetrical and asymmetrical.
 - High transmission clear flat acrylic lens seals the luminaire's optical chamber to IP66.
 - Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI

QUICK LINKS

Ordering Guide	Performance	Photometrics	Dimensions
----------------	-------------	--------------	------------



- C78.377. Also available in Phosphor Converted Amber. Consult Factory for other color temperature requirements.
- Minimum CRI of 70.
- Electrical**
 - High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
 - 0-10V dimming (10% - 100%) standard.
 - Standard Universal Voltage (120-277 Vac) Input 50/60 Hz. Optional High Voltage 347-480 Vac Input available.
 - L91 Calculated Life: >100K Hours calculated @ 25°C per IESNA TM-21-11.
 - Total harmonic distortion: <20%.
 - Operating temperature: -40°C to +50°C (-40°F to +122°F); Cold-weather emergency battery backup rated for -20°C minimum ambient.
 - Power factor: >.90.
 - Input power stays constant over life.
 - High-efficacy LEDs with integrated circuit board mount to the housing to maximize heat dissipation and promote long life.
 - Driver components are fully encased in potting long material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
 - Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Optional 120v-277v integral emergency battery pack is available. The 90 - minute batteries provide constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance.
- Installation**
 - Easy leveling even in uneven areas and full 360-degree rotation for precise alignment during installation.
 - Base plate installs with four heavy-duty 3/8" x 10" galvanized steel anchor bolts.
 - Base plate attaches to lower extruded housing via four stainless steel roll pins.
- Warranty**
 - LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsiindustries.com/resources/terms-and-warranty.aspx> for more information.
- Listings**
 - Listings
 - Listed to UL 1598 and UL 8750.
 - RoHS Compliant.
 - Meets Buy American Act requirements.
 - Suitable for wet locations.
 - IP66 rated Driver compartment and IP66 rated optical chamber per IEC 60598.
 - IDA compliant; with 3000K or 2700K color temperature selection.

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • www.lsicorp.com
(800) 436-7800 • ©LSI Industries Inc. All Rights Reserved. Specifications subject to change without notice.

Page 1/7 Rev. 06/02/22
SPEC.1113.A.1121



Catalog #: _____ Project: _____ Type: _____
Prepared By: _____ Date: _____

Mirada Medium Wall Sconce (XWM)
Outdoor Wall Sconce



OVERVIEW	
Lumen Package (lm)	3,000 - 21,000
Wattage Range (W)	23 - 175
Efficacy Range (LPW)	125 - 158
Weight lbs (kg)	27 (12.2)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit.
- Hinged die-cast aluminum wiring access door located underneath.
- Galvanized-steel universal wall mount bracket comes standard with hinging mechanism to easily access the junction box wire connections without removing the luminaire.
- Optional pole-mounting bracket (XPKMA) permits mounting to standard poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Max shipping weight: 30lbs in carton
- Optical System**
 - State-of-the-Art one piece silicone optic provides industry leading optical control while also acting as an integrated gasket reducing system complexity and improving fixture reliability.
 - Proprietary silicone refractor optics provide exceptional coverage and uniformity in Types 2, 3, and Forward Throw (FT) distributions.
 - Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
 - Zero uplight.
 - Available in 5000K, 4000K and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
 - Minimum CRI of 70.
- Electrical**
 - High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.

- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L90 Calculated Life: >100K Hours
- Total harmonic distortion: <20%
- 3L to 12L operating temperature: -40°C to +50°C (-40°F to +122°F)
- 18L operating temperature: -40°C to +45°C (-40°F to +113°F)
- 18L operating temperature: -40°C to +40°C (-40°F to +104°F)
- 21L operating temperature: -40°C to +35°C (-40°F to + 95°F)
- Power factor: >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed via hinged door.
- Optional integral emergency battery pack provides 90-minutes of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. The fixture delivers 1500 lumens during emergency mode.
- Controls**
 - Integral passive infrared Bluetooth™ motion sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app. Updates and modifications to the control strategy are easily implemented via an intuitive app.
- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule.
- Installation**
 - Universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
 - 2 fasteners secure the hinged door underneath the housing and provides quick & easy access to the electrical compartment for installing/servicing.
 - Optional terminal block accepts up to 12 ga wire.
- Warranty**
 - LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.
 - 1 Year warranty on Battery Back-up option.
- Listings**
 - Listed to UL 1598 and UL 8750.
 - Meets Buy American Act requirements.
 - IDA compliant; with 3000K or lower color temperature selection.
 - Title 24 Compliant; see local ordinance for qualification information.
 - Suitable for wet Locations.
 - IP65 rated luminaire per IEC 60598.
 - 3G rated for ANSI C136.31 high vibration applications when pole mounted (using optional XPKMA bracket) or wall mounted.
 - IK08 rated luminaire per IEC 66262 mechanical impact code
 - DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.com/DQL to confirm which versions are qualified.

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com
©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard releases. Specifications subject to change without notice.

Page 1/7 Rev. 05/31/23
SPEC.1024.B.0620



Catalog #: _____ Project: _____ Type: _____
Prepared By: _____ Date: _____

Mirada Large (MRL)
Outdoor LED Area Light



OVERVIEW	
Lumen Package	40,000 - 78,000
Wattage Range	286 - 648
Efficacy Range (LPW)	115 - 154
Weight lbs(kg)	60 (27.2)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing, optical frame, and driver access cover.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 68 lbs in carton.
- Optical System**
 - State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
 - Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, SW, FT, FTA and AM.
 - Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
 - Zero uplight.
 - Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
 - Minimum CRI of 70.
 - Integral louver (L) and integral half louver (IH) options available for enhanced back-light control.
- Electrical**
 - High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
 - 0-10V dimming (10% - 100%) standard.

- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L90 Calculated Life: >100K Hours (See Lumen Maintenance chart)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 65L and 78L lumen packages rated to +40°C.
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- Controls**
 - Optional integral passive infrared Bluetooth™ motion and photocell sensor (see page 5 for more details). Fixtures operate independently and can be commissioned via iOS or Android configuration app.
 - LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (see controls section for more details).

Installation

- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment for installing/servicing.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes both B3 and B5 drill patterns for easy fastening of LSI products.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.

Listings

- Listed to UL 1598 and UL 8750.
- State of California Title 24 Compliant; with IMSBT, ALSC, or ALSCH Options.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.com/DQL to confirm which versions are qualified.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- IK08 rated luminaire per IEC 66262 mechanical impact code

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com
©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard releases. Specifications subject to change without notice.

Page 1/7 Rev. 11/22/22
SPEC.1022.B.0722

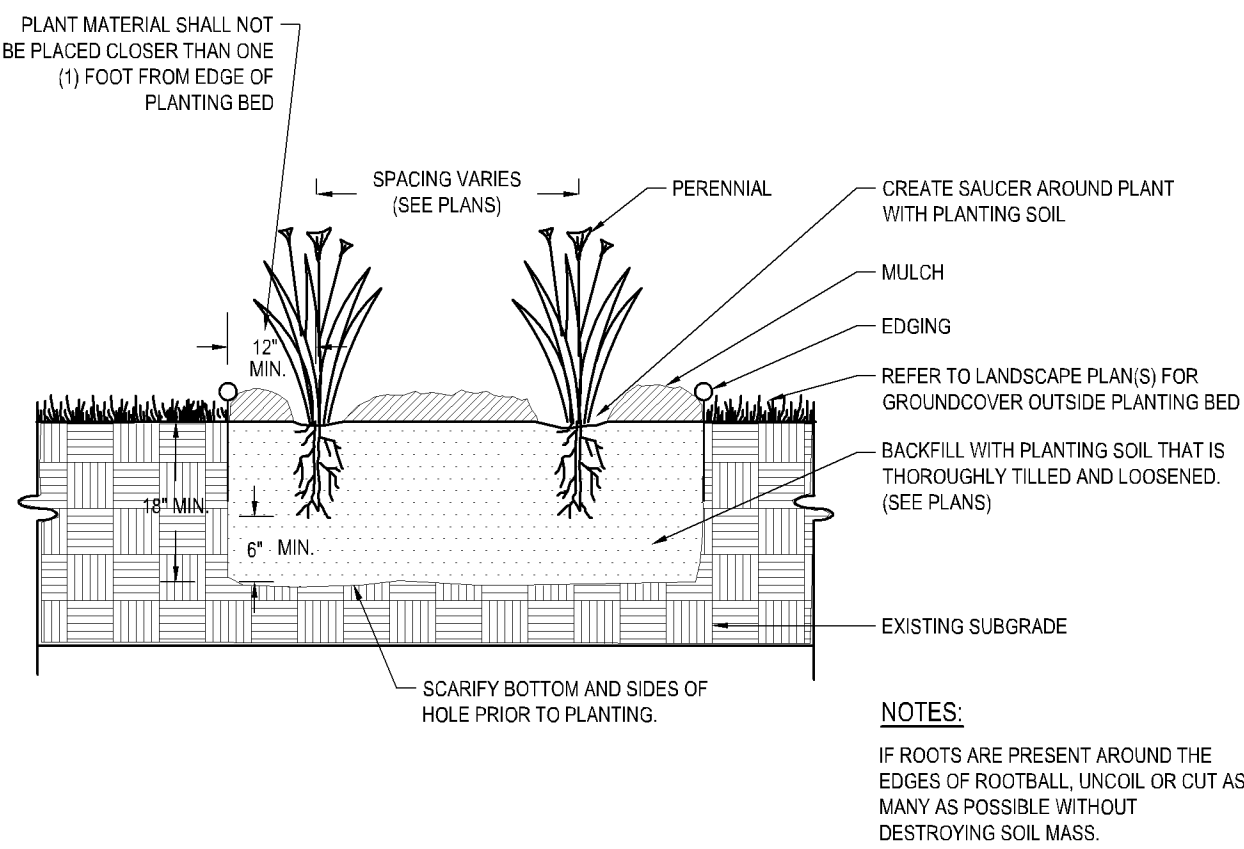


Know what's Below.
Call before you dig.

3

SHRUB PLANTING

NO SCALE



4

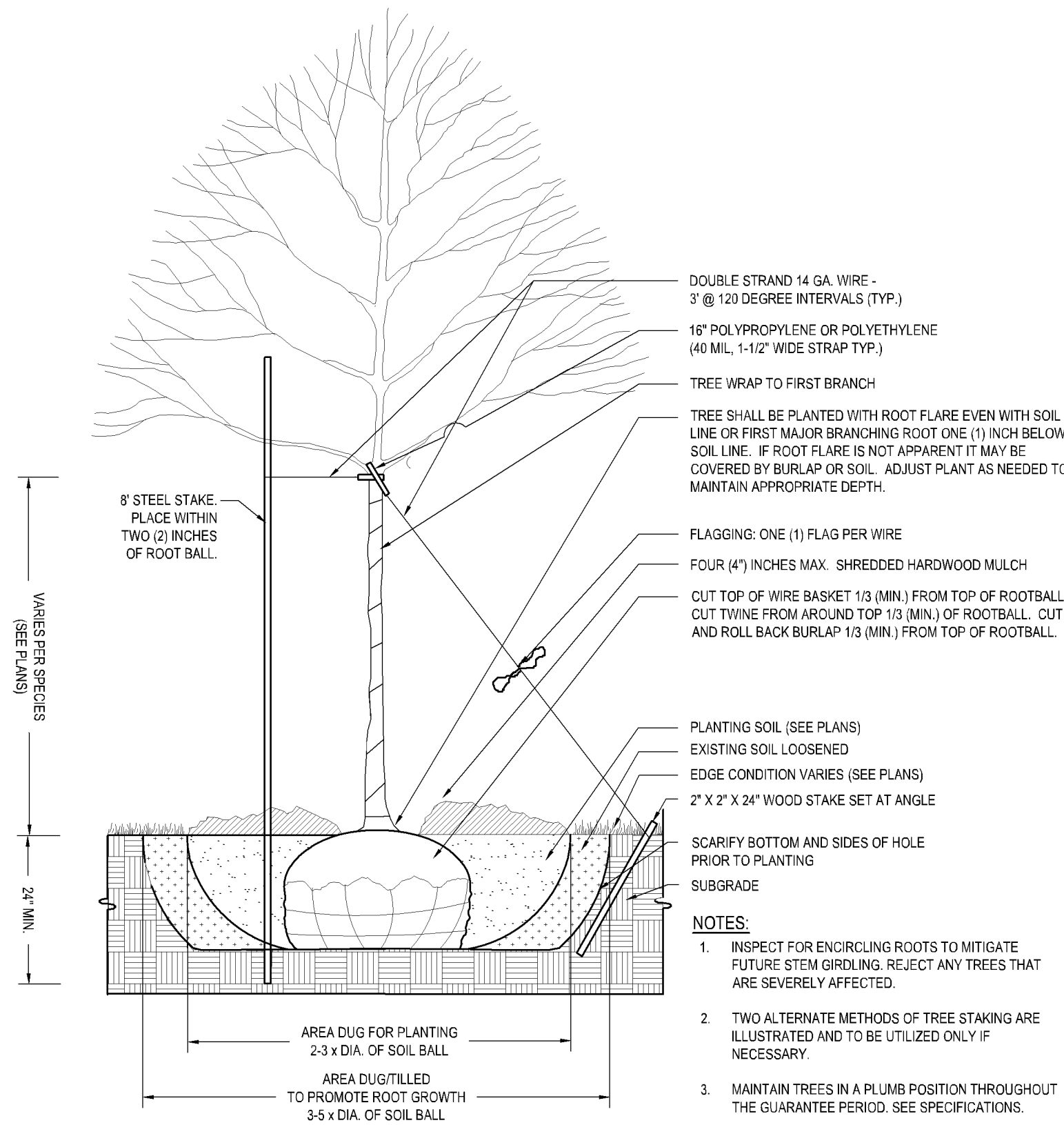
PERENNIAL PLANTING

NO SCALE

1

DECIDUOUS TREE PLANTING

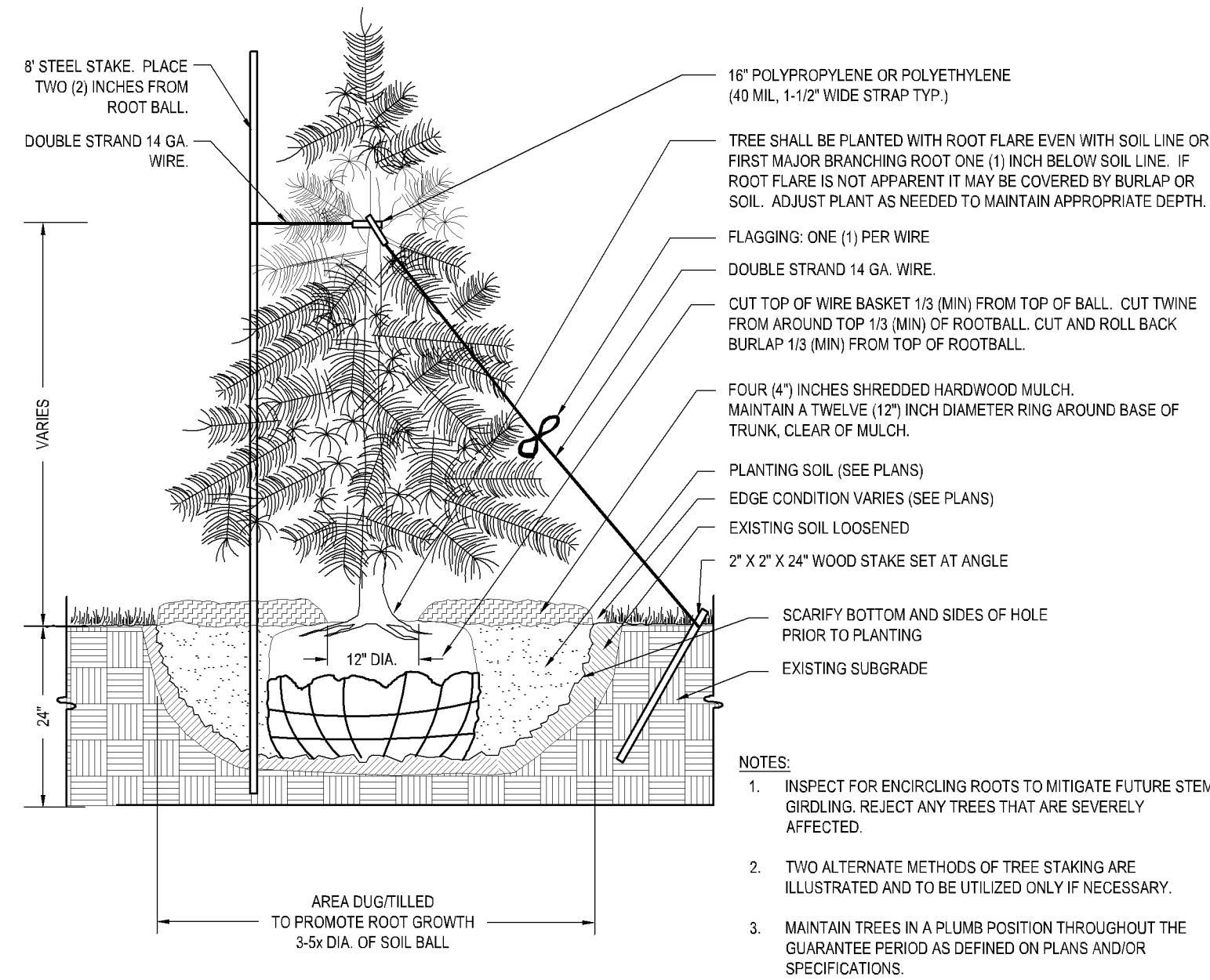
NO SCALE



2

CONIFEROUS TREE PLANTING

NO SCALE



DEVELOPER

THE LUTHER COMPANY, LLLP.
3701 ALABAMA AVENUE SOUTH
ST. LOUIS PARK, MN
TEL (952) 258-8800 - FAX (952) 258-8900

MUNICIPALITY

BLOOMINGTON

PROJECT

LUTHER
BLOOMINGTON KIA
BLOOMINGTON, MN

ISSUE / REVISION HISTORY

DATE	ISSUE / REVISION	REVIEW
07 FEB 2024	ORC SUBMITTAL	SES
05 AUG 2024	CLIENT REVIEW	SES
14 AUG 2024	CITY SUBMITTAL	SES
08 SEP 2024	CITY RESUBMITTAL	SES

PL202400150
PL2024-150

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

CITY RESUBMITTAL

09.09.2024

811

Know what's Below.
Call before you dig.

LANDFORM

From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME L701LUT061.DWG

PROJECT NO. LUT23061

LANDSCAPE DETAILS

L7.1

Landform and Site to Finish are registered service marks of Landform Professional Services, LLC.