FINAL DEVELOPMENT PLAN
SAINT LUKE'S EAST HOSPITAL - ASC EXPANSION & RENOVATION

LEE'S SUMMIT, MO 64086

100 NE SAINT LUKE'S BLVD.

GENERAL NOTES

1. All work in public easement and Right-of-Way shall be installed per the requirements and specifications of the City of Lee's Summit, Missouri.
2. All existing topographic, survey, and utility information shown was provided to BHC in the form of an Topographic Survey prepared by BHC and dated July 12, 2022. Contractors shall satisfy themselves as to the existing conditions of the site and have all utilities located prior to commencing construction.
3. The Contractor shall be required to obtain all Federal, State, and Local permits required for this project prior to commencing construction.
4. Any work adjacent to or crossing existing streets requires proper traffic control devices. Traffic control devices shall be placed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).
5. The contractor shall be required to demolish, remove and dispose of all existing structures, pavements, and features necessary to construct the improvements shown hereon. Any waste materials generated during construction shall be removed from the site by the Contractor and disposed of in accordance with all local, State, and Federal regulations governing such disposal.
6. The contractor shall prevent any trash, debris, or liquid wastes from being disposed of in sanitary sewers, storm sewers, or open drainage systems.
7. The Contractor shall be solely responsible to protect adjacent property, structures, and other improvements from damage during construction. In the event of damage to adjacent property, structures, or improvements, the contractor shall repair or replace such damage to the Owners's satisfaction at the Contractor's expense.
8. Contractors at the site shall be solely responsible for jobsite safety for all aspects of work shown hereon.
9. All work and materials used in the construction of the improvements shown hereon shall comply with all referenced standards, specifications, and plan notes.
10. All buildings are shown as a reference only. All buildings shall be located and constructed per the Architectural drawings prepared by others.
11. Contractor shall be responsible for contacting all utility companies for field locations of underground utilities affected by the contract. All existing utilities indicated on these plans are according to the best information available to the engineer; however, all utilities actually existing may not be shown. Utilities damaged through the negligence of the contractor to obtain the location of same shall be repaired or replaced at the expense of the contractor.
12. Coordinate with facility representative as to when construction activities may be performed to work with the operations of the facility.
13. Any and all hazards shall be properly identified and barricaded from access during all non-construction periods.
14. A Right-of-Way permit is required from the City of Lee's Summit, Missouri Public Works Department for any work within the public right-of-way.

Sheet List Table	
Sheet Number	Sheet Title
CVR	Cover Sheet
C100	Demolition Plan - Building Expansion
C101	Demolition Plan - Parking Expansion
C200	Overall Site Plan
C201	Site Plan - Building Expansion
C202	Site Plan - Parking Expansion
C203	Dimension Plan - Building Expansion
C204	Dimension Plan - Parking Expansion
C300	Overall Grading Plan
C301	Detailed Grading Plan - Building Expansion
C302	Detailed Grading Plan - Parking Expansion
C303	Overall Erosion Control Plan
C304	Erosion Control Plan - Building Expansion
C305	Erosion Control Plan - Parking Expansion
C306	Erosion Control Details
C400	Overall Utility Plan
C401	Sanitary Plan & Profile
C402	Photometric Plan
C500	Overall Drainage Map
C501	Expansion Drainage Map
C502	Storm Plan & Profile
C503	Storm Plan & Profile
C504	Storm Plan & Profile
C505	Storm Plan & Profile
C506	Detention Basin Plan
C600	Wall Specifications
C601	Retaining Wall Plan & Profile 1
C602	Retaining Wall Plan & Profile 2
C603	Wall Details
C700	Civil Details 1
C701	Civil Details 2
C702	Civil Details 3
C703	Civil Details 4
L100	Landscape Plan
L200	Planting Details
L201	Irrigation Details 1
L202	Irrigation Details 2
A120	Architectural Site Plan Details
A214	Roof Plan and Details
A510	Exterior Elevations
A511	Exterior Elevations

UTILITY CONTACTS

PLANNING AND DEVELOPMENT
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1600
FAX: (816) 969-1619

PUBLIC WORKS
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1800
FAX: (816) 969-1809

LEE'S SUMMIT FIRE DEPARTMENT
207 SE DOUGLAS ROAD
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1300

TELEPHONE COMPANY
AT&T
TEL: (800) 464-7928

CODES ADMINISTRATION
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1200
FAX: (816) 969-1201

WATER UTILITIES
CITY HALL
1200 SE HAMBLEN RD
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1900
FAX: (816) 969-1935

ELECTRIC COMPANY
EVERGY
TEL: (888) 471-5275

GAS COMPANY
MISSOURI GAS ENERGY
TEL: (816) 756-5252

All existing utility locations shown are approximate only and are not guaranteed to be accurate or all inclusive. Contractor shall be responsible for contacting all utility companies and verifying the actual field locations of all utilities prior to any construction activity. Contractor shall keep all utility locations current. Utilities damaged through the negligence of the contractor to obtain the proper field locations shall be the resporsibility of the contractor to repair or replace at their expense and at the direction of the utility company. The contractor shall pothole and survey all utility crossings prior to construction of any portion of storm sewer, sanitary sewer laterals, underdrains, conduit and any other subsurface element of the project. The survey information shall be forwarded to the project engineer for review. The contractor shall not begin construction on any subsurface element on the project without the approval of the project engineer. Utility coordination, potholing/surveying shall be subsidiary to other bid items.

Dig Safely. Missouri One-Call 811
1-800-344-7483

BENCHMARKS (DATUM: NAVD88)

BENCHMARK NUMBER: 1
CHISELED SQUARE ON THE FRONT FACE OF A DUAL MANHOLE CURB INLET, LOCATED 49.8 FEET NORTHWEST OF THE NORTHEAST CORNER OF THE NORTH END OF SAINT LUKE'S HOSPITAL.

ELEVATION= 982.88

BENCHMARK NUMBER: 2
CHISELED SQUARE ON THE FRONT FACE OF A CURB INLET, LOCATED ±97.4 FEET SOUTHWEST OF THE SOUTHEAST CORNER ON THE NORTH END SAINT LUKE'S HOSPITAL.

ELEVATION= 979.35

FLOOD STATEMENT

The subject property lies within Flood Zone " X " (unshaded) (Areas determined to be outside the 0.2% annual chance floodplain.), as shown on the Jackson County, Missouri and Incorporated Areas Flood Insurance Rate Map (F.I.R.M.).
Map Number: 29095C0409G
Panel No: 409 of 625
Map Revised Date: January 20, 2017
NOTE: This statement is provided for informational purposes only and shall in no way constitute a basis for a flood certificate. No field work was performed to establish the boundaries of this zone. The information was derived by scaling the subject property on the above referenced map.

SURVEYOR OF RECORD

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712 STATE AVE.
KANSAS CITY, KANSAS 66101
P (913) 663-1900
F (913) 663-1633
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OVERLAND PARK, KANSAS 66210
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F (913) 663-1633
CONTACT: KURT YODER
EMAIL: KURT.YODER@IBHC.COM

OWNER/DEVELOPER

SAINT LUKE'S
4401 WORNALL ROAD
KANSAS CITY, MISSOURI 64111
(816) 932-3200
CONTACT: TJ STEINKIRCHNER
EMAIL: TSTEINKIRCHNER@SAINTLUKESKC.ORG

STATE OF MISSOURI
KURT M YODER
NUMBER PE-2021020064
PROFESSIONAL ENGINEER
02/06/2023
Kurt M. Yoder, Civil Engineer
License - Missouri #2021020064

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Saint Luke's
EAST HOSPITAL
ASC EXPANSION & RENOVATION
100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

Revision

Number	Date	Description

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As Noted on Plan Review
Development Services Department
Lee's Summit, Missouri
03/28/2023

Digitally signed by Mike Weisenborn
Date: 2023.03.28 16:34:34-05'00'

CVR

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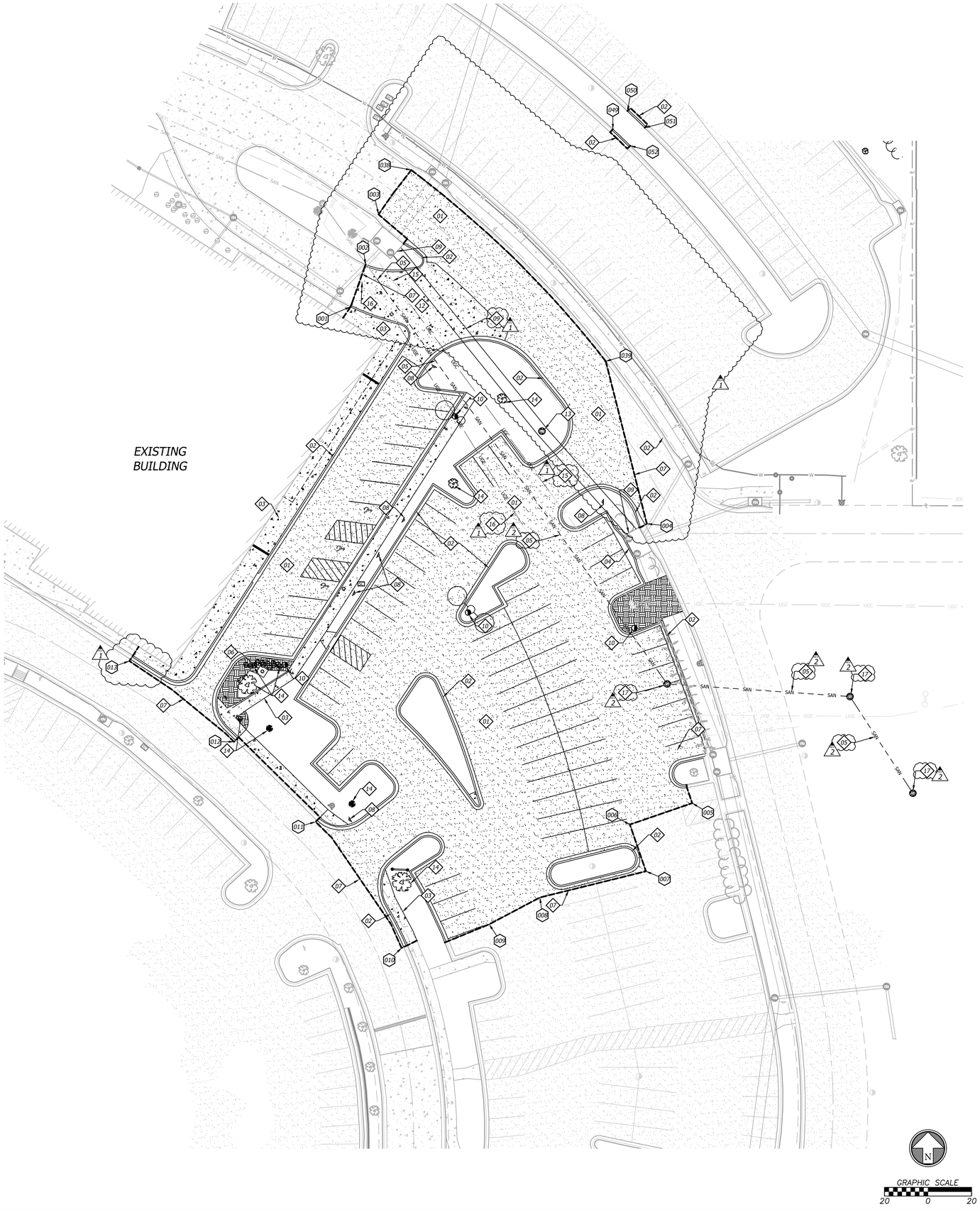
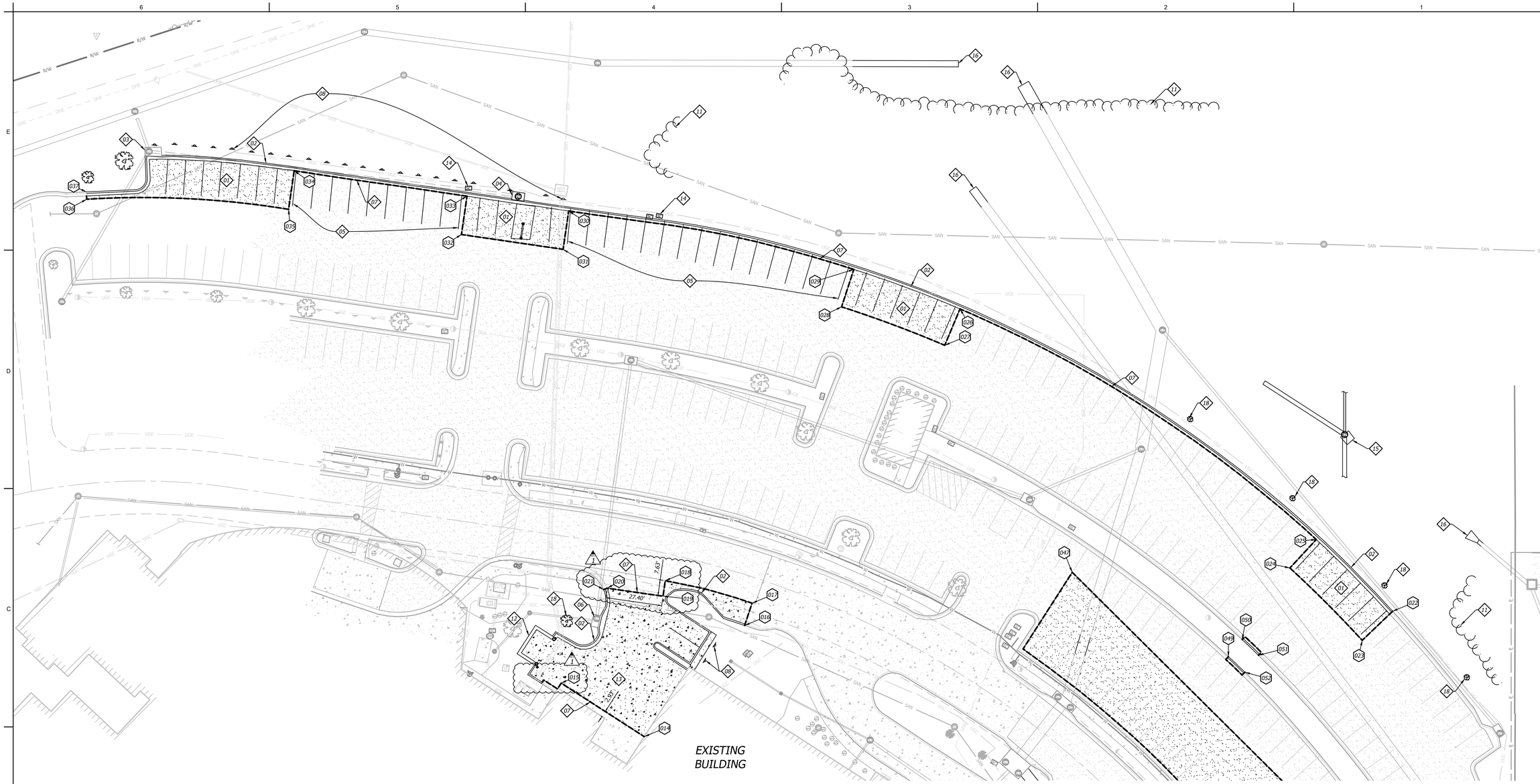
COVER SHEET

Feb 06, 2023 – 9:30am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PDP\033570-SHT5-COVR.dwg Layout: Cover Sheet


EXISTING
BUILDING
SAN
SAN
SAN



GENERAL NOTES

1. *Contractor shall verify the location, size, material and depth of all utilities prior to any excavation or construction activity.*
2. *All materials shall be removed and disposed of off-site. It is the contractors responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.*
3. *The Contractor shall ensure that any structures to remain which are damaged during demolition operations shall be repaired to meet current code, at no additional cost to the owner.*
4. *The Contractor shall remove any and all existing debris which is encountered from the existing site. This shall include, but shall not be limited to, footings, concrete slabs, conduits, granular subgrade, utility services, and/or unsuitable structural fill material as determined by the owner's engineer. The cost for these removals shall be considered incidental to the project. Said debris shall become property of the contractor and it shall be the responsibility of the contractor to dispose of properly off-site.*
5. *It shall be the Contractor's responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.*
6. *The Contractor shall be responsible for obtaining and payment of any permits for demolition that pertain to this project.*
7. *All protection fencing shall be installed prior to demolition/construction activity. The Contractor shall provide a 6-foot security fence around the entire job site with locked gated access points, if required by the owner or the city.*
8. *All existing utilities removed during construction shall have their trenches backfilled with structural fill and be compacted to the requirements for structural fill.*
9. *All removals required to properly perform the work (whether shown on the plans or not) shall be performed by the Contractor at no additional cost to the owner.*

DEMOLITION NOTES

01 *REMOVE & DISPOSE OF EXISTING ASPHALT.*

02 *REMOVE & DISPOSE OF EXISTING CURB.*

03 *CURB INLET TO REMAIN. REMOVE THROAT AND REBUILD THROAT. PLUG STORM MAIN OPENING FROM THE EAST WITH BRICK AND MORTAR.*

04 *REMOVE CURB INLET. ABANDON STORM MAIN TO THE WEST.*

05 *REMOVE PARKING STALL STRIPING FROM PAVEMENT. PAVEMENT TO REMAIN HERE.*

1 06 *REMOVE CURB INLET TOP. CURB INLET IS TO BE CONVERTED TO AN AREA GRATE INLET. SEE STORM PLANS.*

07 *SAW CUT EXISTING PAVEMENT TO FULL DEPTH AND CLEAN EDGE.*

08 *REMOVE & DISPOSE OF EXISTING PARKING SIGNS.*

09 *NOT USED.*

10 *REMOVE EXISTING LIGHT POLE.*

11 *CLEAR TREES AND BRUSH TO ALLOW FOR GRADING.*

12 *REMOVE & DISPOSE OF TRASH ENCLOSURE.*

13 *REMOVE & DISPOSE OF CONCRETE PAVEMENT.*

14 *REMOVE SPRINKLER EQUIPMENT*

15 *REMOVE & DISPOSE OF CONCRETE STORM PIPES AND OUTLET STRUCTURE*

16 *REMOVE & DISPOSE OF CONCRETE STORM PIPES AND HEADWALLS TO ALLOW FOR PLACEMENT OF JUNCTION BOXES. SEE STORM PLANS FOR LOCATIONS OF JUNCTION BOXES.*

17 *NOT USED.*

18 *REMOVE AND DISPOSE OF EXISTING LANDSCAPING.*

Points

PNT#	NORTHING	EASTING
001	1010665.3769	2822810.6325
002	1010671.4699	2822863.1137
003	1010666.1269	2822876.9259
004	1010572.1577	2822942.4315
005	1010435.8537	2822967.0927
006	1010426.0022	2822938.4413
007	1010404.5284	2822945.8249
008	1010392.4896	2822897.0912
009	1010380.1714	2822873.7746
010	1010369.3130	2822833.4996
011	1010427.2440	2822794.0161
012	1010464.0188	2822756.5423
013	1010501.1511	2822708.4314
014	1010706.6061	2822646.3877
015	1010732.6511	2822605.9793
016	1010760.7079	2822695.2189
017	1010771.5610	2822698.8321
018	1010782.5031	2822656.5943
019	1010774.9504	2822655.5117
020	1010778.8381	2822628.3895
021	1010778.1508	2822626.6281
022	1010767.6407	2823010.5209
023	1010753.4676	2822995.7218
024	1010788.6900	2822960.5369
025	1010802.5162	2822973.3625
026	1010914.7347	2822800.0240
027	1010897.0483	2822792.5862
028	1010915.7557	2822742.4019
029	1010933.9612	2822748.3452
030	1010962.3994	2822609.6211
031	1010943.7337	2822606.8999
032	1010950.9468	2822557.4230
033	1010969.6020	2822560.1426
034	1010981.9767	2822476.0482
035	1010963.2161	2822473.3131
036	1010968.1229	2822375.0897
037	1010971.6933	2822374.9029
038	1010660.4453	2822882.4242
039	1010643.4554	2822923.7777
041	1010626.0421	2822936.8403
042	1010601.3424	2822956.1582
043	1010580.5733	2822938.5358
044	1010611.6168	2822963.7764
045	1010646.4939	2822992.1340
046	1010652.1942	2822989.8989
047	1010786.5773	2822854.6110
048	1010637.1026	2822946.4726
049	1010745.5526	2822930.6172
050	1010753.8369	2822937.2920
051	1010746.2034	2822945.2360
052	1010737.9624	2822938.6043

DEMOLITION LEGEND

- SAW CUT LINE
- ASPHALT PAVEMENT TO BE REMOVED
- CONCRETE SIDEWALK TO BE REMOVED
- CONCRETE PAVEMENT TO BE REMOVED
- EXISTING TREE LINE
- EXISTING TREE LINE TO BE REMOVED

N

GRAPHIC SCALE
20 0 20

KURT M YODER NUMBER PE-2021020064 STATE OF MISSOURI PROFESSIONAL ENGINEER
02/06/2023
Kurt M. Yoder, Civil Engineer
License - Missouri #2021020064

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01	01/20/2023	Addendum 01

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Lee's Summit, Missouri
03/28/2023

C101

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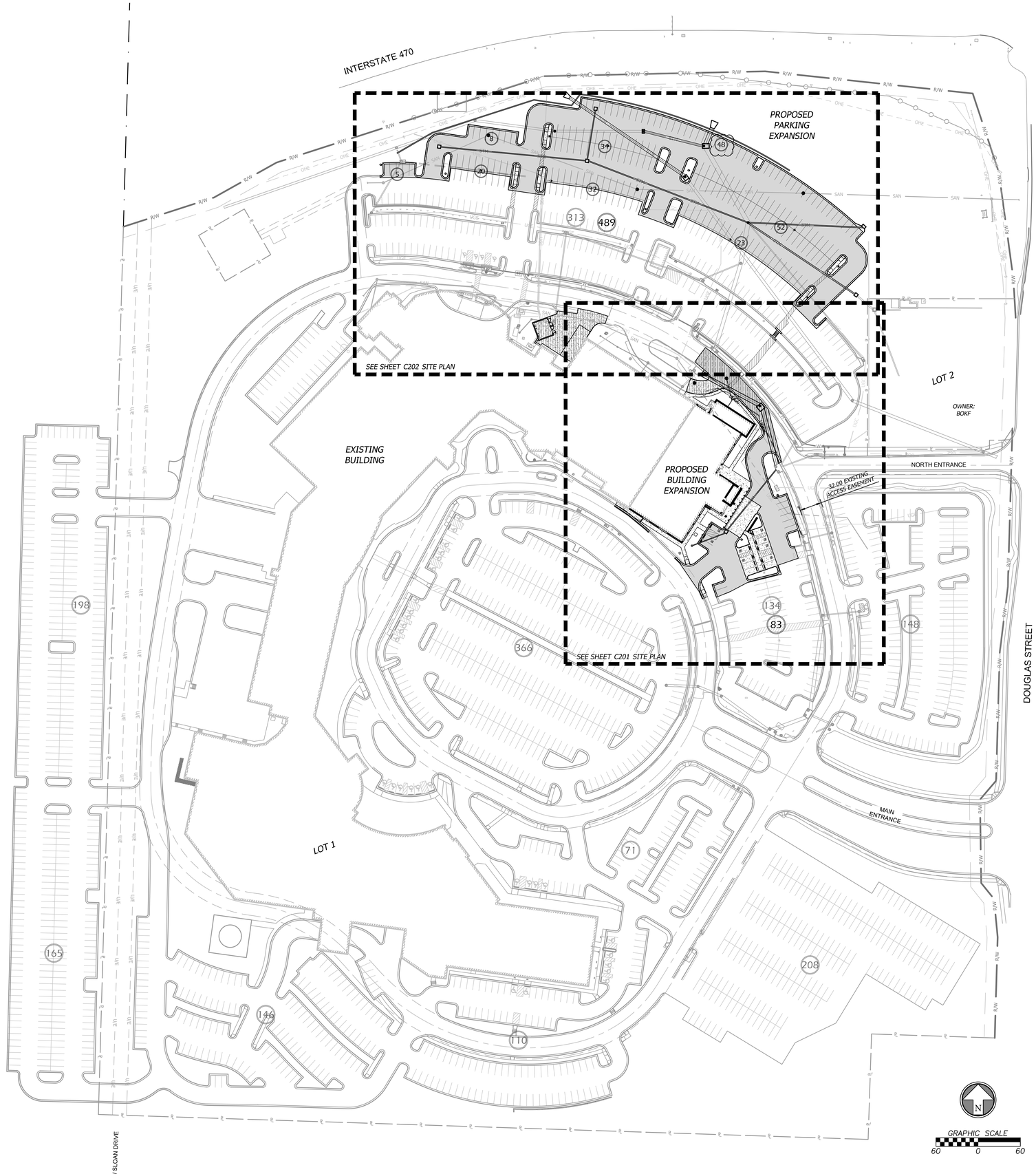
DEMOLITION PLAN - PARKING EXPANSION

Feb 06, 2023 - 9:30am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\DP\033570-SHTS-DEMO.dwg Layout: Demo Plan - PRKG EXP



GENERAL NOTES

1. CONTAINING THE NET AREA OF 1,753,967 SQ. FT. OR 40.266 ACRES.
2. ELEVATIONS ARE BASED ON USGS DATUM, NAVD 88.
3. CONTOURS ARE SHOWN AT 1 FEET INTERVALS.
4. ALL STREETS, STORM SEWER, SANITARY SEWERS AND WATER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT, MISSOURI, DESIGN AND CONSTRUCTION MANUAL.
5. TYPE "CG-1" CONCRETE CURB & GUTTER SHALL BE USED THROUGHOUT THIS PROJECT. SEE KCAPWA STANDARD DETAIL (C-1).
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL, CITY ORDINANCE NO. 5813
7. THE WATER & SANITARY SEWER UTILITY CONTACT IS WATER UTILITIES DEPARTMENT, OPERATIONS DIVISIONS AT (816) 969-1940.

BENCHMARKS

BENCHMARK NUMBER: 1
CHISELED SQUARE ON THE FRONT FACE OF A DUAL MANHOLE CURB INLET, LOCATED 49.8 FEET NORTHWEST OF THE NORTHEAST CORNER OF THE NORTH END OF SAINT LUKE'S HOSPITAL.

ELEVATION= 982.88

BENCHMARK NUMBER: 2
CHISELED SQUARE ON THE FRONT FACE OF A CURB INLET, LOCATED +97.4 FEET SOUTHWEST OF THE SOUTHEAST CORNER ON THE NORTH END SAINT LUKE'S HOSPITAL.

ELEVATION= 979.35

LEGAL DESCRIPTION

LOT 1 OF SAINT LUKE'S HOSPITAL OF LEE'S SUMMIT LOTS 1 AND 2

A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SITE DATA

	EXISTING	PROPOSED
SITE		
SITE AREA	*40.27 AC*	
	1,753,967 SF	
IMPERVIOUS AREA	*1,094,938 SF (62.4%)*	*1,177,915 SF (67.2%)*
PERVIOUS AREA	*653,391 SF (37.4%)*	*570,414 SF (33.0%)*
BUILDING		
BUILDING AREA	*593,626 SF*	*655,840 SF*
FLOOR AREA RATIO	*0.34*	*0.37*
ENERGY CENTER	*18,495 SF*	
BASEMENT	*14,500 SF*	
EMERGENCY CENTER	*13,212 SF*	
DIAGNOSTIC	*24,400 SF*	
3-STORY MOB	*59,499 SF*	
2-STORY HOSPITAL ADDITION	*38,436 SF*	
3-STORY HOSPITAL ADDITION	*55,500 SF*	
HOSPITAL	*251,018 SF*	
SURGERY CENTER	*15,563 SF*	
2ND STORY ON SURGERY CENTER	*18,682 SF*	
O.R. EXPANSION	*7,789 SF*	
EMERGENCY ROOM EXPANSION	*3,742 SF*	
CATH LAB ADDITION	*3,768 SF*	
EMERGENCY ROOM EXPANSION	*5,454 SF*	
2-STORY SURGERY CENTER	*24,852 SF*	
RADIATION ONCOLOGY/UROLOGY	*2,920 SF*	
O.R. HOSPITAL ADDITION	*10,847 SF*	
FLEX FACILITY EXPANSION	*24,949 SF*	
3-STORY SURGERY CENTER		*62,214 SF*
PARKING		
REQUIRED:		
1.8 SPACES PER BED (242 BEDS)		*436*
5 SPACES PER 1000 SF OFFICE SPACE (178,000 SF)		*890*
TOTAL REQUIRED PARKING		*1326*
PARKING STALLS	*1,859*	*1,983*
HANDICAP STALLS	*36*	*41*

ZONING

CP-2 (PLANNED GENERAL BUSINESS DISTRICT)

SITE LEGEND

- *EXISTING PARKING STALL COUNT*
- *PROPOSED PARKING STALL COUNT*
- *PROPOSED BUILDING*
- *EXISTING BUILDING*
- *ASPHALT PAVEMENT*
- *CONCRETE PAVEMENT*
- *CONCRETE SIDEWALK*
- *STANDARD CURB & GUTTER*
- *RETAINING WALL*

STATE OF MISSOURI
KURT M. YODER
NUMBER PE-2021020064
PROFESSIONAL ENGINEER
03/28/2023

Kurt M. Yoder, Civil Engineer
License - Missouri #2021020064

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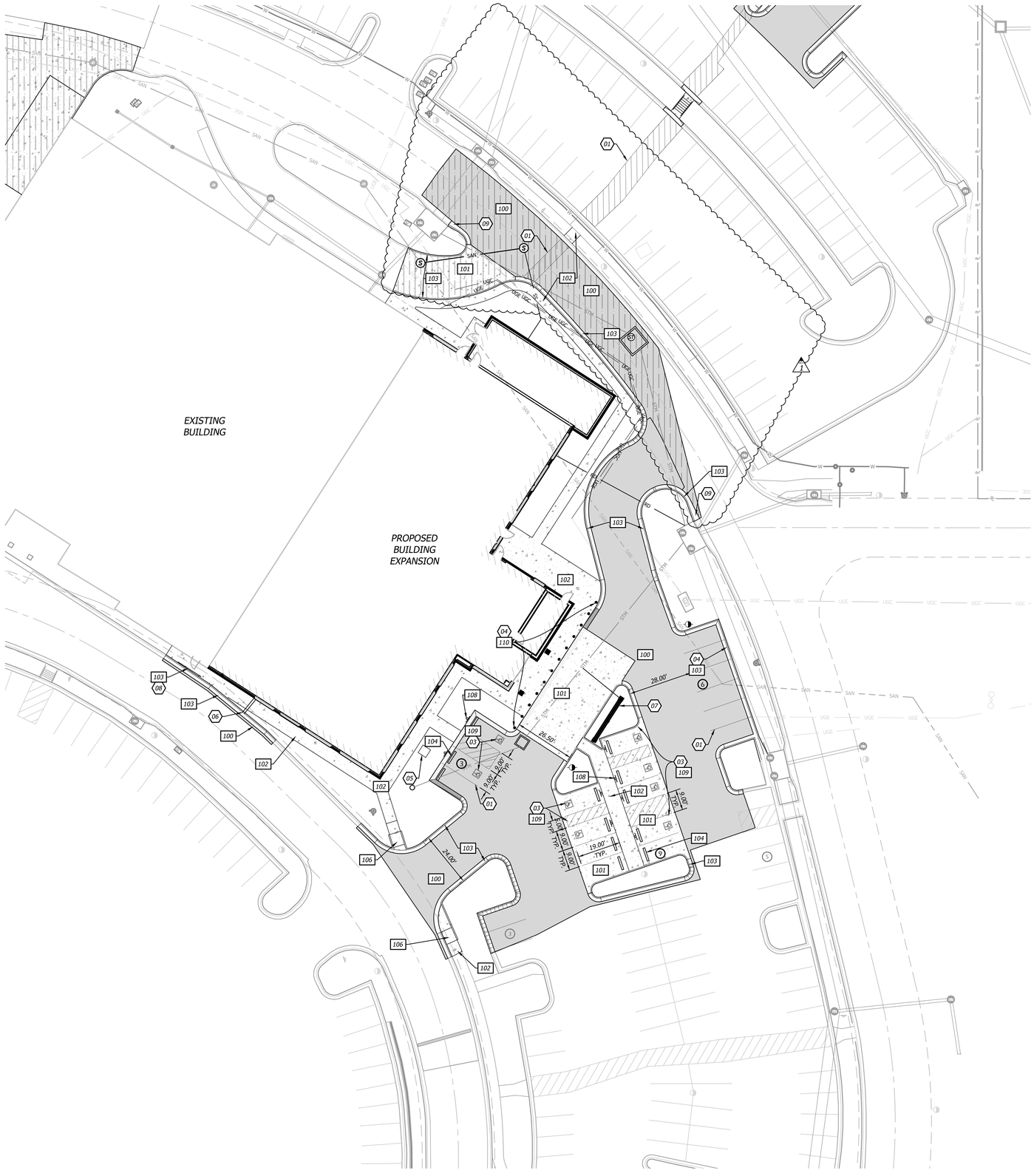
OVERALL SITE PLAN

Mar 28, 2023 - 8:14am Plotted By: kurtyoder V:\03357O-st. lukes east\04-DWG\Lrng\Sheet\\PDP\03357O--SHTS-SITE.dwg Layout: Site Plan



00 CONSTRUCTION NOTES

01 LEAD FREE, WATER-BORNE EMULSION BASED TRAFFIC PAINT FOR PARKING LOT STRIPING (WHITE ON ASPHALT & YELLOW ON CONCRETE).
02 PROPOSED SITE LIGHTING; REFER TO LIGHTING PLANS.
03 ADA PARKING AREA. 1.5% MAXIMUM SLOPE IN ANY DIRECTION.
04 INSTALL CONCRETE BOLLARDS 6 FT APART.
05 PROPOSED ACCESS LID TO EXISTING TUNNEL. DESIGN OF CONCRETE ACCESS AND LID BY STRUCTURAL.
06 PROPOSED 6" TRENCH DRAIN THROUGH SIDEWALK WITH SOLID LID FOR OVERFLOW DRAIN FROM BUILDING. TRENCH DRAIN TO DRAIN TO PAVEMENT THROUGH CURB. TRENCH DRAIN TO BE EVERGRATE T-06C DIAMOND CONNECTED TO AN EVERGRATE C-646T CURB OPENING OR APPROVED EQUAL.
07 PROPOSED CANOPY AND FOOTING. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
08 INSTALL 12 FT LENGTH OF HANDRAIL CENTERED ON THE BUILDING DOOR. HAND RAIL POSTS ARE TO BE 4" MINIMUM FROM BACK OF CURB PARALLEL WITH BUILDING WALL.
09 REBUILD PART OF CONCRETE THROAT THAT WAS REMOVED.

000 DETAILS

SEE CONSTRUCTION DETAILS - SHEETS C700-C702

100 ASPHALT PAVEMENT
101 CONCRETE PAVEMENT
102 CONCRETE SIDEWALK SECTION
103 CONCRETE CURB & GUTTER
104 CONCRETE WHEEL STOP
106 SIDEWALK RAMP
108 (ADA) HANDICAP PARKING SIGNAGE
109 (ADA) HANDICAP PARKING STRIPING
110 STEEL/CONCRETE BOLLARD
111 HANDRAIL

ZONING

CP-2 (PLANNED COMMUNITY COMMERCIAL)

SITE LEGEND

(#) EXISTING PARKING STALL COUNT
(#) PROPOSED PARKING STALL COUNT
PROPOSED BUILDING
EXISTING BUILDING
STANDARD CURB & GUTTER
DRY CURB & GUTTER
ZERO HEIGHT CURB
TRANSITION CURB
ASPHALT PAVEMENT
HEAVY DUTY ASPHALT PAVEMENT
CONCRETE SIDEWALK
CONCRETE PAVEMENT
HEAVY DUTY CONCRETE PAVEMENT

STATE OF MISSOURI · KURT M. YODER · NUMBER PE-2021020064 · PROFESSIONAL ENGINEER
03/28/2023
Kurt M. Yoder, Civil Engineer
License - Missouri #2021020064

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Saint Luke's EAST HOSPITAL

ASC EXPANSION & RENOVATION
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Lee's Summit, MO 64086
Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

Revision

Number	Date	Description
01	01/20/2023	Addendum 01
02	02/03/2023	Addendum 02

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03/28/2023

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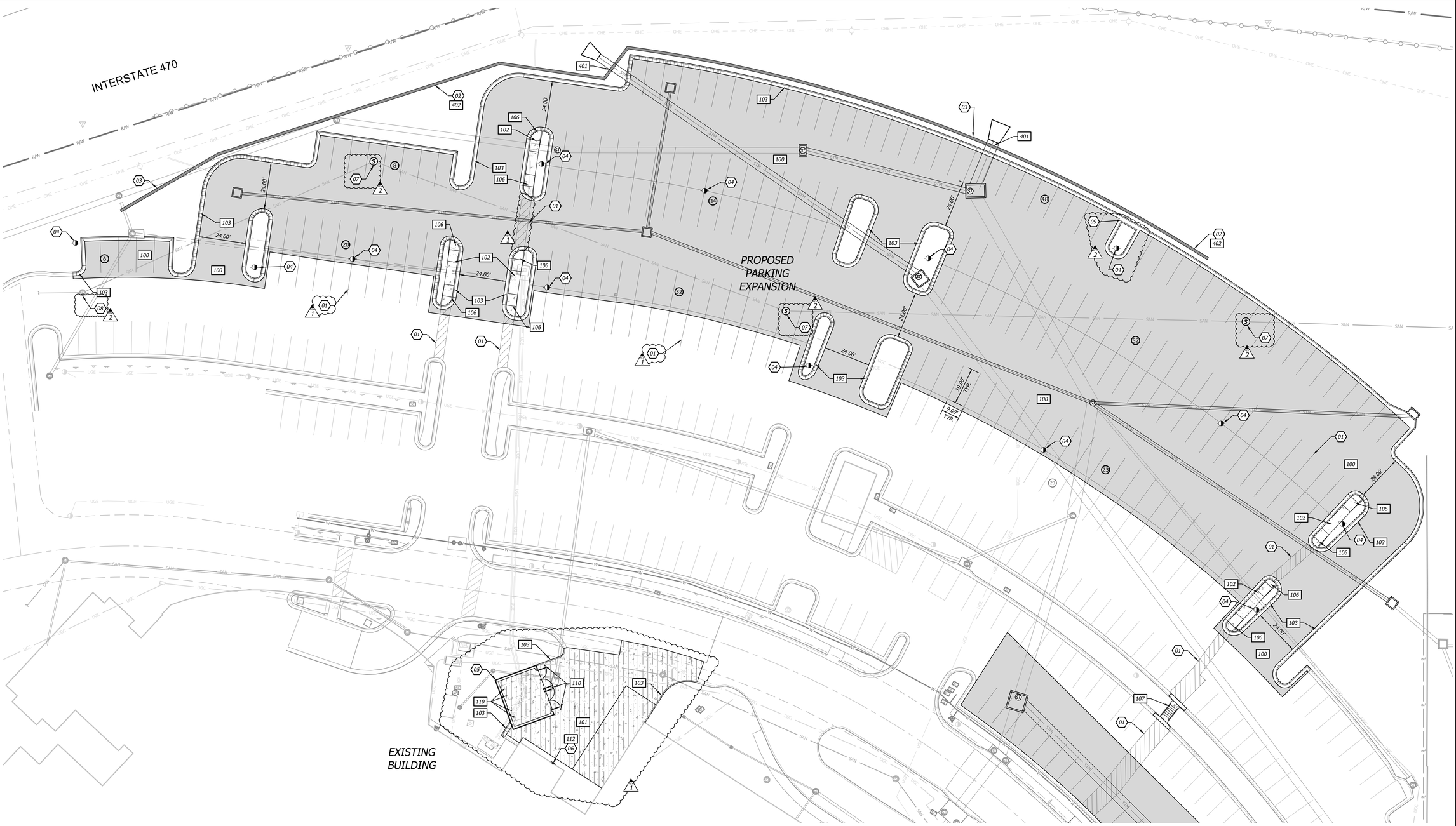
SITE PLAN - BUILDING EXPANSION

Mar 28, 2023 - 8:14am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PSP\033570-SHTS-SITE-PARKING.dwg Layout: Site Plan Building Expansion



ZONING

CP-2 (PLANNED COMMUNITY COMMERCIAL)

00 CONSTRUCTION NOTES

01 LEAD FREE, WATER-BORNE EMULSION BASED YELLOW TRAFFIC PAINT FOR PARKING LOT STRIPING.
02 INSTALL VEHICLE BARRIER ON TOP OF MODULAR BLOCK WALL. BLOCK WALL BARRIER TO HAVE 42" STEEL FENCE ON TOP OF BLOCKS.
03 PROPOSED ENGINEERED MODULAR BLOCK RETAINING WALL. WALL TO BE A RECON REINFORCED WALL WITH GEOGRID OR APPROVED EQUAL.
04 PROPOSED SITE LIGHTING; REFER TO LIGHTING PLANS.
05 PROPOSED 20'x24'8" TRASH ENCLOSURE, SEE ARCHITECTURAL PLANS. (1)
06 PROPOSED "NO PARKING - FIRE LANE" SIGN AGAINST BUILDING. SIGN TO BE 60" ABOVE GROUND.
07 REPLACE EXISTING MANHOLE WITH NEW 5' DIAMETER MANHOLE.
08 USE EXISTING MANHOLE IN PLACE. (2)
09 CREATE CONCRETE FLUME BETWEEN CURBS TO ALLOW DRAINAGE TO PASS THROUGH.

000 DETAILS

SEE CONSTRUCTION DETAILS - SHEETS C700-C703

100 ASPHALT PAVEMENT
101 CONCRETE PAVEMENT
102 CONCRETE SIDEWALK SECTION
103 CONCRETE CURB & GUTTER
106 SIDEWALK RAMP
107 CONCRETE STAIRS & HANDRAIL (1)
110 STEEL/CONCRETE BOLLARD (1)
112 NO PARKING FIRE LANE SIGN
401 CONCRETE COLLAR THROUGH WALL
402 FREESTANDING BLOCK WALL VEHICLE BARRIER WITH FENCE

SITE LEGEND

- EXISTING PARKING STALL COUNT
- PROPOSED PARKING STALL COUNT
- PROPOSED BUILDING
- EXISTING BUILDING
- STANDARD CURB & GUTTER
- DRY CURB & GUTTER
- ZERO HEIGHT CURB
- TRANSITION CURB
- ASPHALT PAVEMENT
- RETAINING WALL
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT

N

GRAPHIC SCALE
20 0 20

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NUMBER PE-2021020064
STATE OF MISSOURI
PROFESSIONAL ARCHITECT/ENGINEER
02/06/2023

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SITE PLAN - PARKING EXPANSION

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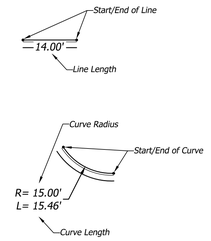
EXISTING BUILDING

PROPOSED BUILDING EXPANSION

DIMENSION NOTES

1. *ALL DIMENSIONS ARE TO/ALONG BACK OF CURB UNLESS OTHERWISE NOTED*
2. *ALL DIMENSIONS ARE TO BOTTOM OF WALL UNLESS OTHERWISE NOTED*

DIMENSION LEGEND



KURT M. YODER NUMBER PE-2021020064 PROFESSIONAL ENGINEER STATE OF MISSOURI
12/28/2023

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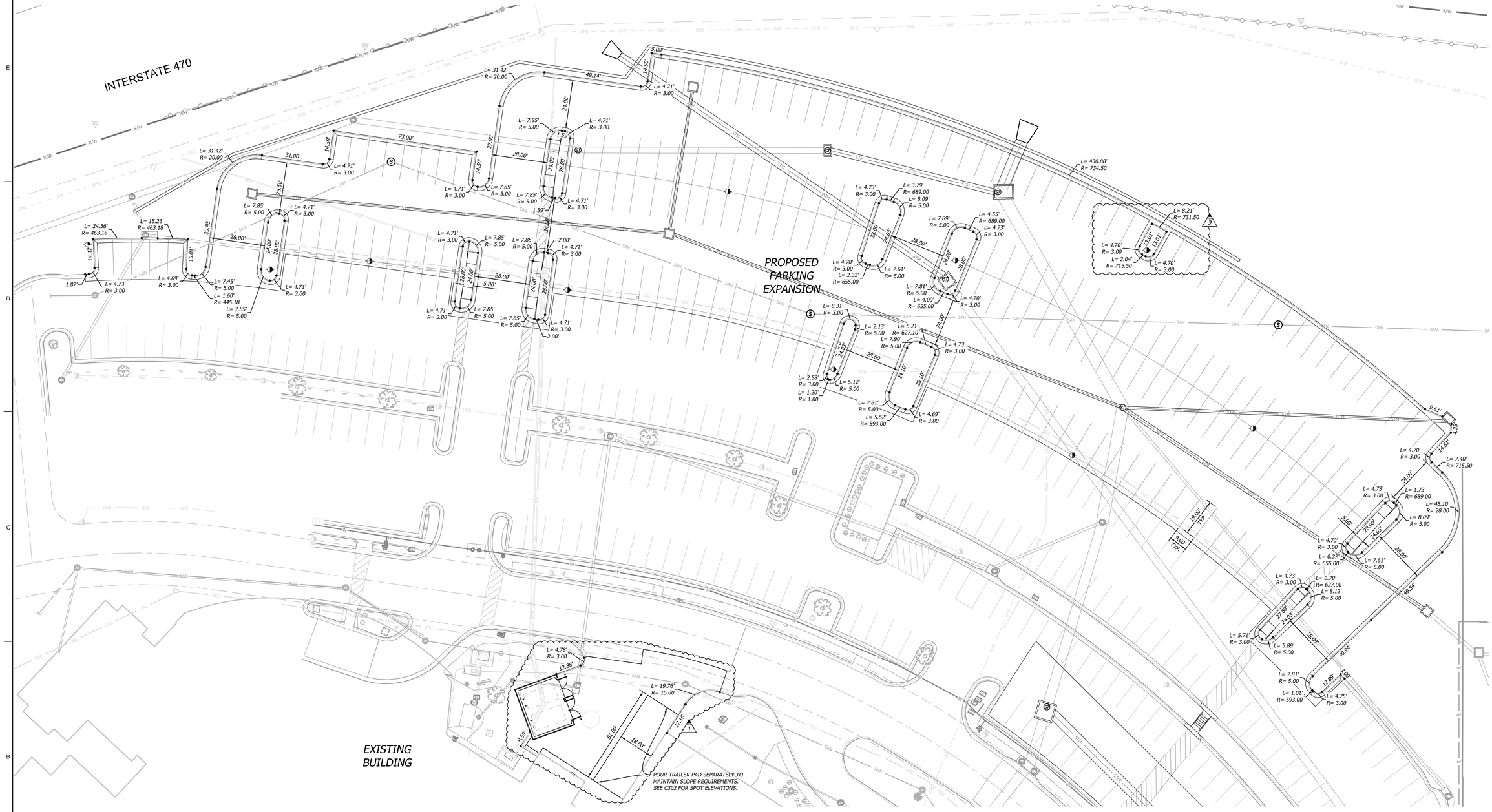
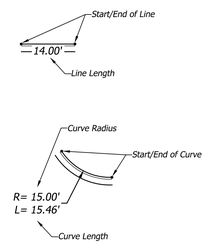
DIMENSION PLAN - BUILDING EXPANSION

GRAPHIC SCALE 10 0 10

Mar 28, 2023 – 8:14am Plotted By: kurt.yoder V:\035570-st. lukes east\04-DWG\Eng\Sheet\PDP\035570-SHTS-DWG.dwg Layout: Dims Plan Building Exp



DIMENSION LEGEND



DIMENSION NOTES

1. *ALL DIMENSIONS ARE TO/ALONG BACK OF CURB UNLESS OTHERWISE NOTED*
2. *ALL DIMENSIONS ARE TO BOTTOM OF WALL UNLESS OTHERWISE NOTED*

GRAPHIC SCALE
20 0 20

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Lee's Summit, Missouri
03/28/2023

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DIMENSION PLAN - PARKING EXPANSION

Feb 06, 2023 - 9:31am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PDP\033570-SHT5-DIMS.dwg Layout: Dims Plan

GRADING NOTES

1. Contractor shall obtain a copy of the Geotechnical Services Report for the project and be familiar with the existing conditions and recommendations contained in the report if such a report has been prepared.
2. Contractor is responsible for any over excavation of existing unsuitable soils will be required under building and pavement areas. Contractor shall perform over excavation of unsuitable soils as a part of this work.
3. Contractor shall obtain soils suitable as structural fill from off-site sources. All borrow materials must be tested and approved by the Geotechnical Engineer prior to importing the soils to the project site.
4. Contractor shall operate under the terms and permits included in the Stormwater Pollution Prevention Plan (SWPPP) prepared for this project and permitted through the State of Missouri. Contractor shall employ a qualified person to conduct regular inspections of the site erosion control measures and document such inspections in the SWPPP document maintained by the Contractor.
5. All topsoil, vegetation, root structures, and deleterious materials shall be stripped from the ground surface prior to the placement of embankments. Contractor shall obtain the on-site geotechnical representative's acceptance of the existing ground surface materials and the proposed fill material prior to the placement of fill.
6. All proposed contour lines and spot elevations shown are finish ground elevations. Contractor shall account for pavement depths, building pads, topsoil, etc when grading the site.
7. All disturbed areas that are not to be paved (green spaces) shall be finish graded with a minimum of six inches of topsoil.
8. All excavation and embankments shall comply with the recommendations provided by the geotechnical engineer.
9. Prior to placing any concrete or asphalt pavement the contractor shall perform a proof roll of the pavement sub-grade with a fully loaded tandem axle dump truck. The proof roll shall be conducted in the presence of the on-site geotechnical representative. Areas that display rutting or pumping that are unsatisfactory to the geotechnical representative shall be re-worked and a follow-up proof roll shall be conducted prior to acceptance of the sub-grade for paving. The contractor may, at its own expense, stabilize the sub-grade using Class C fly ash or quicklime, as approved by the geotechnical engineer.
10. Finished grades shall not be steeper than 3:1.
11. All grading work shall be considered unclassified. No additional payments shall be made for rock excavation. Contractor shall satisfy himself as to any rock excavation required to accomplish the improvements shown hereon.
12. A 2.0% maximum cross slope shall be maintained on all pedestrian sidewalks and paths.

FLOOD STATEMENT

The subject property lies within Flood Zone " X " (unshaded) (Areas determined to be outside the 0.2% annual chance floodplain.), as shown on the Jackson County, Missouri and Incorporated Areas Flood Insurance Rate Map (F.I.R.M.).

Map Number: 29095C0409G
Panel No: 409 of 625
Map Revised Date: January 20, 2017

NOTE: This statement is provided for informational purposes only and shall in no way constitute a basis for a flood certificate. No field work was performed to establish the boundaries of this zone. The information was derived by scaling the subject property on the above referenced map.

BENCHMARKS (DATUM: NAVD88)

BENCHMARK NUMBER: 1
ELEVATION= 982.88

CHISELED SQUARE ON THE FRONT FACE OF A DUAL MANHOLE CURB INLET, LOCATED 49.8 FEET NORTHWEST OF THE NORTHEAST CORNER OF THE NORTH END OF SAINT LUKE'S HOSPITAL.

BENCHMARK NUMBER: 2
ELEVATION= 979.35

CHISELED SQUARE ON THE FRONT FACE OF A CURB INLET, LOCATED ±97.4 FEET SOUTHWEST OF THE SOUTHEAST CORNER ON THE NORTH END SAINT LUKE'S HOSPITAL.

GRADING LEGEND

- 980 — FINISH GRADE MAJOR CONTOURS
- 982 — FINISH GRADE MINOR CONTOURS
- 980 — EXISTING GRADE MAJOR CONTOURS
- 982 — EXISTING GRADE MINOR CONTOURS
- ℄ — PROPERTY LINE
- R/W — RIGHT-OF-WAY LINE
- RETAINING WALL
- DRAINAGE DIRECTION

GRAPHIC SCALE
50 0 50

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03/28/2023

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03/28/2023

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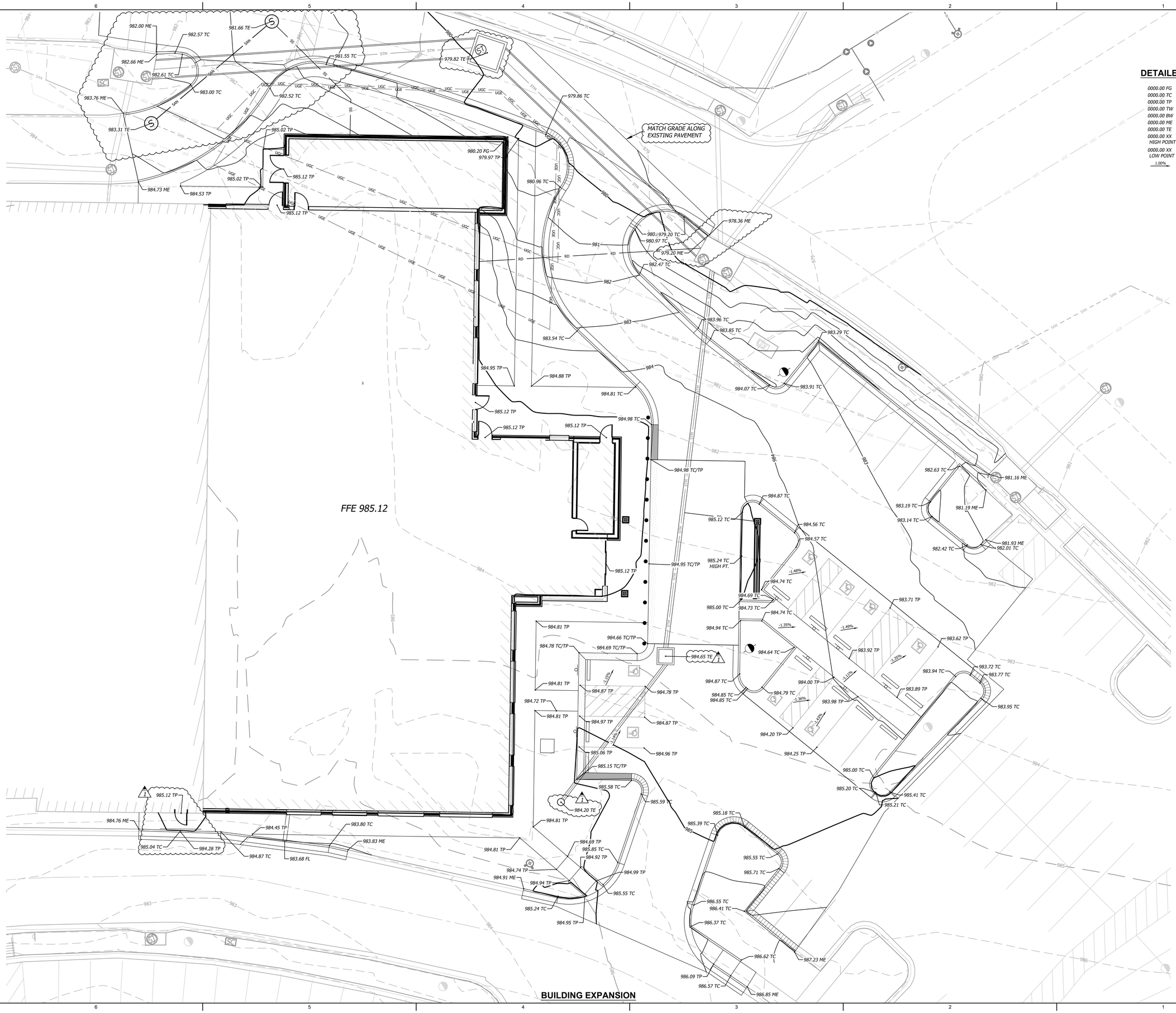
OVERALL GRADING PLAN

Mar 28, 2023 - 8:15am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PSP\033570-SHTS-GRAD.dwg Layout: Overall Grad Plan



DETAILED GRADING LEGEND

0000.00 FG	FINISHED GRADE ELEVATION
0000.00 TC	TOP OF CURB ELEVATION
0000.00 TP	TOP OF PAVEMENT ELEVATION
0000.00 TW	FG @ TOP OF RETAINING WALL
0000.00 BW	FG @ BOTTOM OF RETAINING WALL
0000.00 ME	MATCH EXISTING GRADE
0000.00 TE	TOP ELEVATION OF STRUCTURE
0000.00 XX HIGH POINT	HIGH POINT AT SPECIFIC CALLOUT
0000.00 XX LOW POINT	LOW POINT AT SPECIFIC CALLOUT
1.00%	SLOPE INDICATOR

BUILDING EXPANSION

Mar 28, 2023 - 8:15am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\TOP\033570-SHTS-GRAD.dwg Layout: Dell Grad Building Exp

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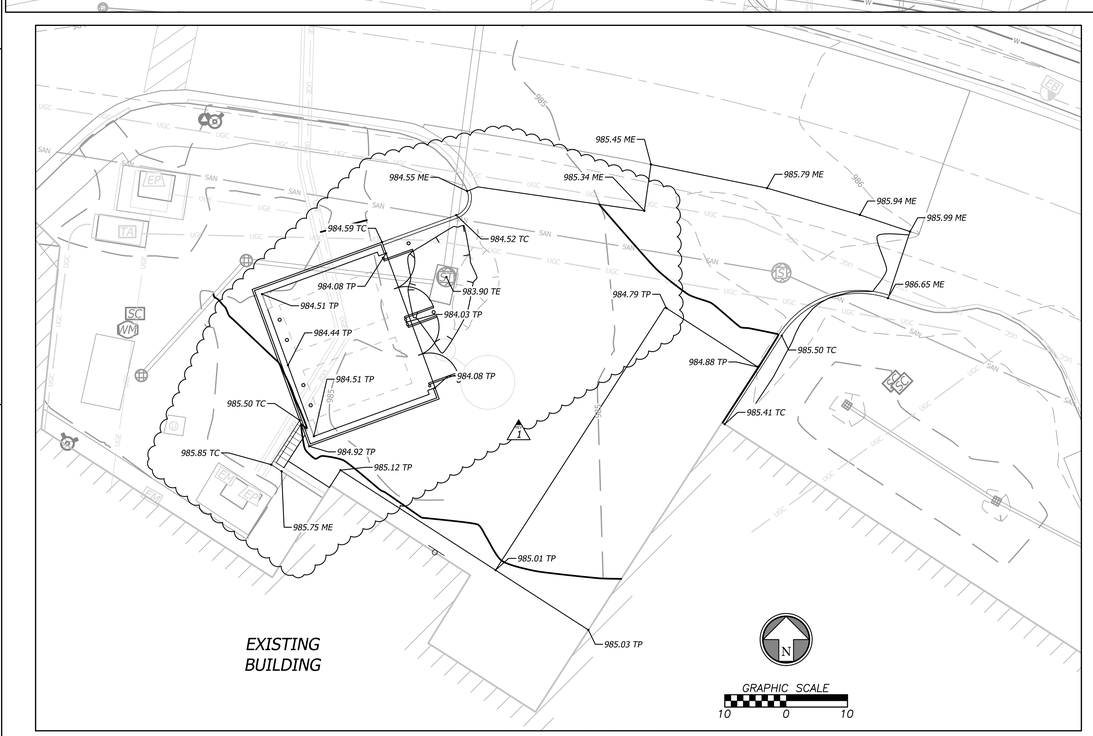
DETAILED GRADING PLAN - BUILDING EXPANSION

PARKING EXPANSION

GRAPHIC SCALE
20 0 20



TRASH ENCLOSURE AREA

GRAPHIC SCALE
10 0 10

DETAILED GRADING LEGEND

0000.00 FG	FINISHED GRADE ELEVATION
0000.00 TC	TOP OF CURB ELEVATION
0000.00 TP	TOP OF PAVEMENT ELEVATION
0000.00 TW	FG @ TOP OF RETAINING WALL
0000.00 BW	FG @ BOTTOM OF RETAINING WALL
0000.00 ME	MATCH EXISTING GRADE
0000.00 TE	TOP ELEVATION OF STRUCTURE
0000.00 XX HIGH POINT	HIGH POINT AT SPECIFIC CALLOUT
0000.00 XX LOW POINT	LOW POINT AT SPECIFIC CALLOUT
1.00%	SLOPE INDICATOR

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DETAILED GRADING PLAN - PARKING EXPANSION

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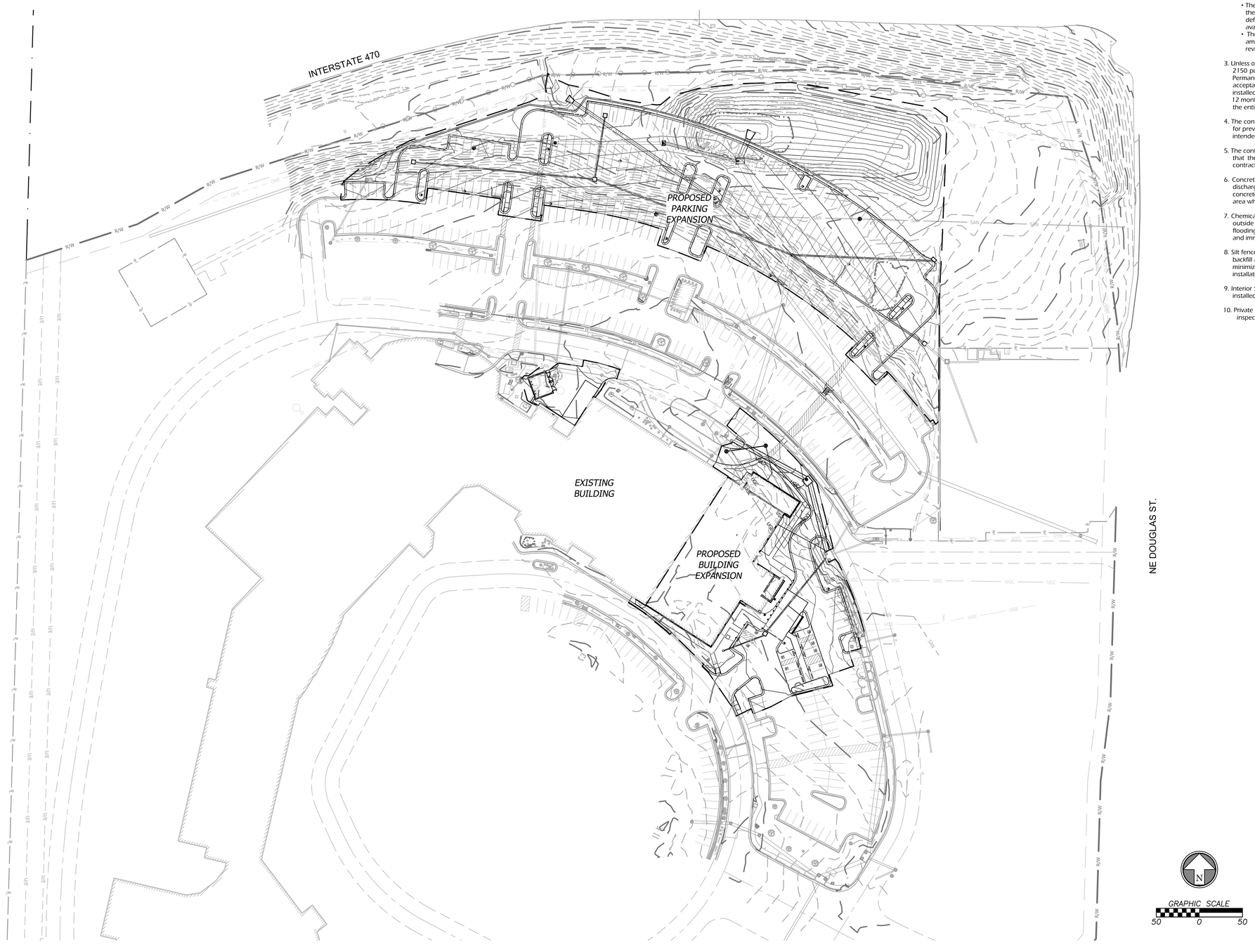

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. Prior to Land Disturbance activities, the contractor shall:
   - Delineate the outer limits of any natural stream corridor designated with construction fencing.
   - Install perimeter controls and request the inspection of the pre-construction erosion and sediment control measures designated on the approved erosion and sediment control plan. Land disturbance work shall not proceed until there is a satisfactory inspection.
   - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, and placement of physical barriers or other means acceptable to the City inspector and in conformance with the erosion and sediment control plan.

2. The contractor shall comply with all requirements of the Storm Water Pollution Prevention Plan, including but not limited to:
   - The contractor shall seed, mulch, or otherwise stabilize any disturbed area where the land disturbance activity has ceased for more than 14 days.
   - The contractor shall perform inspections of erosion and sediment control measures at the following minimum intervals:
     - o During active construction phases - at least once per week
     - o During periods of inactivity - at least once per 14 days
     - o After each rainfall event of ½ inch or more - within 24 hours of the rain event
   - The contractor shall maintain an inspection log including the inspector's name, date of inspection, observations as to the effectiveness of the erosion and sediment control measures, actions necessary to correct deficiencies, when the deficiencies were corrected, and the signature of the person performing the inspection. The inspection log shall be available for review by the regulatory authority.
   - The contractor shall have the erosion and sediment control plan routinely updated to show all changes and amendments to the plan. A copy of the erosion and sediment control plan shall be kept on site and made available for review by the regulatory authority.

3. Unless otherwise noted in the plans, all seeding must conform to Division II-Construction and Materials Specification-Section 2150 published by the Kansas City Metropolitan Chapter of the American Public Works Association dated May 21, 2008. Permanent seeding shall be installed after completion of final grading except when seeding will occur outside of the acceptable seeding season as specified in Section 2150. When temporary seeding is installed, permanent seeding shall be installed at the next seeding season. Temporary seeding shall not be used as a stabilization measure for a period exceeding 12 months. The Permit will not be closed until permanent seeding has been established to a minimum of 70% density over the entire disturbed area.

4. The contractor shall maintain installed erosion and sediment control devices in a manner that preserves their effectiveness for preventing sediment from leaving the site or entering a sensitive area such as a natural stream corridor, areas of the site intended to be left undisturbed, a storm sewer, or an on-site drainage channel.

5. The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMPs in place do not provide adequate erosion and sediment control at any time during the project, the contractor shall install additional or alternate measures that provide effective control.

6. Concrete wash or rinse water from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc. may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place.

7. Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials stored outside must be in closed and sealed water-proof containers and located outside of drainage ways or areas subject to flooding. Locks and other means to prevent or reduce vandalism shall be used. Spills will be reported as required by law and immediate actions taken to contain them.

8. Silt fences and erosion control BMPs which are shown along the back of curb must be installed within two weeks of curb backfill and prior to placement of base asphalt. Exact locations of these erosion control methods may be field adjusted to minimize conflicts with utility construction; however, anticipated disturbance by utility construction shall not delay installation.

9. Interior Silt Fence as necessary during construction. Portions may be limited as vegetation is established and hardscape is installed. Entire length may be installed at the contractor's option to aid in stabilizing slopes.

10. Private Erosion & Sediment Control inspections are required in accordance with NPDES schedule and requirements. After inspections, provide the City of Lee's Summit with reports and documentation.

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Lee's Summit, MO 64086
Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

Revision

Number	Date	Description

RELEASED FOR CONSTRUCTION
As Noted on Plan Review
Development Services Department
Lee's Summit, Missouri
03/28/2023

C303

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OVERALL EROSION CONTROL PLAN

Mar 28, 2023 - 8:15am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PSP\033570-SHTS-EPSN.dwg Layout: Eros

EROSION AND SEDIMENT CONTROL GENERAL NOTES

See Sheet C303 for Erosion Control Notes.

EROSION CONTROL LEGEND

- DISTURBED AREA (14.09 AC) 1
- FINAL SEEDING (SOD &/OR LANDSCAPING)
- INLET PROTECTION FILTER BAGS
- SF — SILT/SEDIMENT FENCE

GRAPHIC SCALE
20 0 20

EROSION & SEDIMENT CONTROL STAGING CHART

Phase	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage:	Notes:
Phase I (PRE-CON)	A – Place BMP's Prior to Land Disturbance	01	Perimeter Silt Fence	E	Place as shown on plan
		02	Construction Entrance & Staging Area	D	Place as shown on plan
		03	Concrete Wash-Out	D	Place as shown on plan
		04	Existing Inlet Protection	E	Place as shown on plan
Phase II (MID-CON)	B – After Stripping, Grubbing, & Mass Grading	05	Interior Silt Fence	E	Place as shown on plan
	C – After Utility Storm Sewer Construction	06	Storm Inlet Protection	D	Place as shown on plan
Phase III (POST-CON)	D – After Construction of Building and Parking Lot	07	Steep Slope Protection	E	Place as shown on plan
	E – Final Grading, Paving & Landscaping	08	Final Seeding, Sod, and Landscaping	N/A	Silt fencing & inlet protect may be removed once seed & sodded areas are established on 80% of site.

000 DETAILS

- SEE EROSION CONTROL DETAIL SHEET FOR THE FOLLOWING

400 TEMPORARY CONSTRUCTION ENTRANCE
401 FILTER FABRIC SILT FENCE
402 STORM INLET PROTECTION
403 CONCRETE WASH-OUT

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Construction Documents

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01	01/20/2023	Addendum 01

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C304

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EROSION CONTROL PLAN - BUILDING EXPANSION

Mar 28, 2023 - 8:15am Plotted By: kurtyoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PDP\033570-SHTS-EROSN.dwg Layout: Eros-BLDG

EXISTING BUILDING

EROSION AND SEDIMENT CONTROL GENERAL NOTES

See Sheet C303 for Erosion Control Notes.

EROSION & SEDIMENT CONTROL STAGING CHART

Phase	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage:	Notes:
Phase I (PRE–CON)	A – Place BMP's Prior to Land Disturbance	01	Perimeter Silt Fence	E	Place as shown on plan
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DETAILS

- SEE EROSION CONTROL DETAIL SHEET FOR THE FOLLOWING

400 TEMPORARY CONSTRUCTION ENTRANCE
401 FILTER FABRIC SILT FENCE
402 STORM INLET PROTECTION
403 CONCRETE WASH-OUT

EROSION CONTROL LEGEND

- DISTURBED AREA (4.21 AC) 1
- SILT/SEDIMENT FENCE
- INLET PROTECTION FILTER BAGS
- CONSTRUCTION ENTRANCE
- CONCRETE CLEANOUT
- STEEP SLOPE PROTECTION

GRAPHIC SCALE
20 0 20

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NUMBER PE-2021020064
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02/06/2023

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01	01/20/2023	Addendum 01

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Lee's Summit, Missouri
03/28/2023

C305

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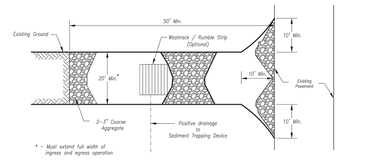
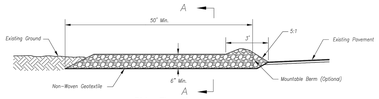
EROSION CONTROL PLAN
- PARKING EXPANSION

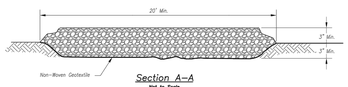
Feb 06, 2023 - 9:32am Plotted By: kurtyoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\[ZDP\033570-SHTS-EROS.dwg Layout: Eros-PRKG



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

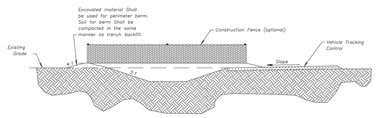
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. Concrete washout area shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes of the pit shall be no steeper than 3:1 (H:V). A gravel tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump trucks.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

Maintenance for Concrete Washout:

1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for washed concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.

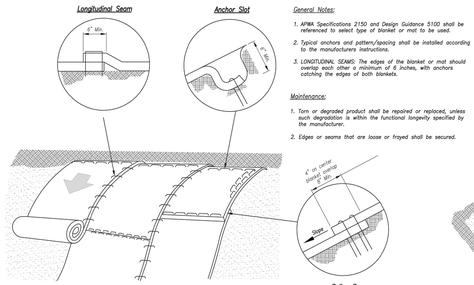


CONCRETE WASHOUT

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT
STANDARD DRAWING NUMBER ESC-01
ADOPTED: 10/24/2016

601 Not to Scale — Temporary Construction Entrance and Concrete Washout

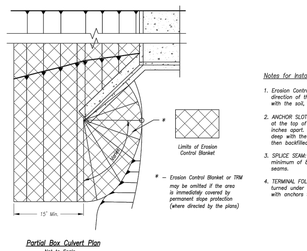


General Notes:

1. APWA Specifications 2150 and Design Guidance 5100 shall be referenced to select type of blanket or mat to be used.
2. Typical anchors and pattern/spacing shall be installed according to the manufacturers instructions.
3. LONGITUDINAL SEAMS: The edges of the blanket or mat should overlap each other a minimum of 6 inches, with anchors catching the edges of both blankets.

Maintenance:

1. Torn or degraded product shall be repaired or replaced, unless such degradation is within the functional longevity specified by the manufacturer.
2. Edges or seams that are loose or frayed shall be secured.

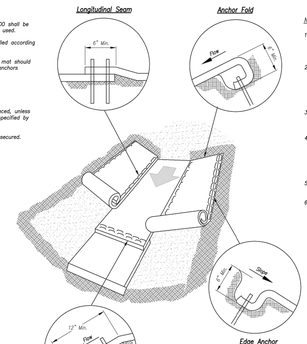


Partial Box Culvert Plan
Not to Scale

Installation Around Culvert Slope

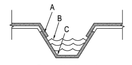
Notes for Installation on Slopes:

1. Erosion Control Blankets and TRMs shall be laid in the direction of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.
2. ANCHOR SLOTS: The top of the blanket should be "slotted in", at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.
3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 6 inches in direction of water flow. Stagger splice seams.
4. TERMINAL FOLD: The bottom edge of the blanket shall be turned under a minimum of 4 inches, then anchored in place with anchors 9 inches apart.

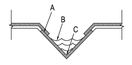


Notes for Installation in Channels:

1. Erosion Control Blankets and TRMs shall be laid in the direction of the flow, with the first course at the centerline of channel, where applicable. In order for the mat to be in contact with the soil, lay the mat loosely, avoiding stretching.
2. ANCHOR FOLD: The top of the mat should be folded under, buried and secured with wood or other approved anchors placed 6 inches apart. The top edge of the mat should be placed in a slot at least 6 inches wide x 6 inches deep, anchored in the bottom of the slot, backfilled, and the mat folded over the top as shown in detail.
3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 12 inches in direction of water flow. Stagger splice seams.
4. CHECK SLOTS: Establish check slots transverse to slope every 30 feet. The slots should be 6 inches wide x 6 inches deep. The mat shall be cut to a length 12 inches beyond the slot. The top of the downstream mat shall be slotted in, secured and buried similar to the edge anchor fold. The upstream mat shall then cover the slot and be anchored as shown.
5. EDGE ANCHORS: Lay outside edge of mat into trench at top of the slope and anchor.
6. TERMINUS: The bottom edge of the mat shall be anchored.



Trapezoidal Channel



V Channel

Critical Points:

A – Overlaps and seams;

B – Projected water line;

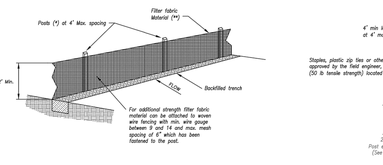
C – Channel bottom / side slope vertices;

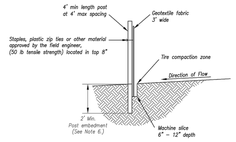
Installation in Channels

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS
STANDARD DRAWING NUMBER ESC-02
ADOPTED: 10/24/2016

602 Not to Scale — Steep Slope Protection





(*) POSTS
– MIN. LENGTH 4'
– HARDWOOD: 1 ⅛" x 1 ⅛"
– NO.2 SOUTHERN PINE 2 ⅜" x 2 ⅜"
– STEEL 1.33 LB/FT

(**) – Geotextile Fabric shall meet the requirements of AASHTO M288

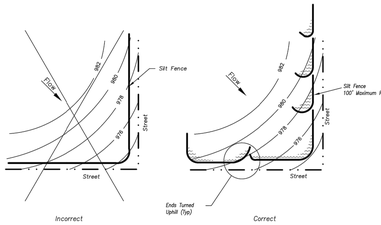
SILT FENCE DETAILS
Not to Scale

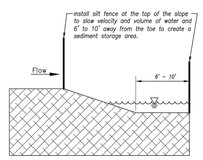
Notes:

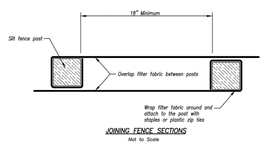
1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where silicing machine cannot be reasonably used.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of silt fence.
2. Repair as necessary to maintain function and structure.





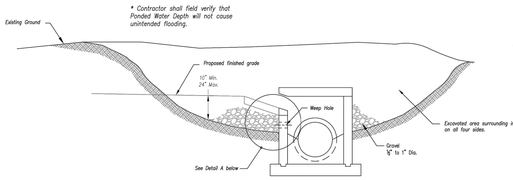


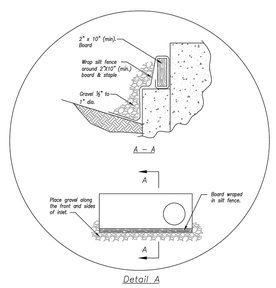
JOINING FENCE SECTIONS
Not to Scale

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
SILT FENCE
STANDARD DRAWING NUMBER ESC-03
ADOPTED: 10/24/2016

603 Not to Scale — Silt Fence





Detail A

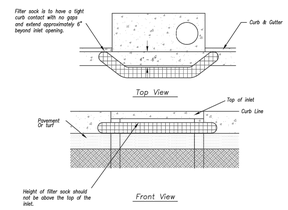
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.



Sump Inlet Sediment Filter

LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
CURB INLET PROTECTION
STANDARD DRAWING NUMBER ESC-06
ADOPTED: 10/24/2016

604 Not to Scale — Inlet Protection

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Lee's Summit, Missouri
03/28/2023

C306

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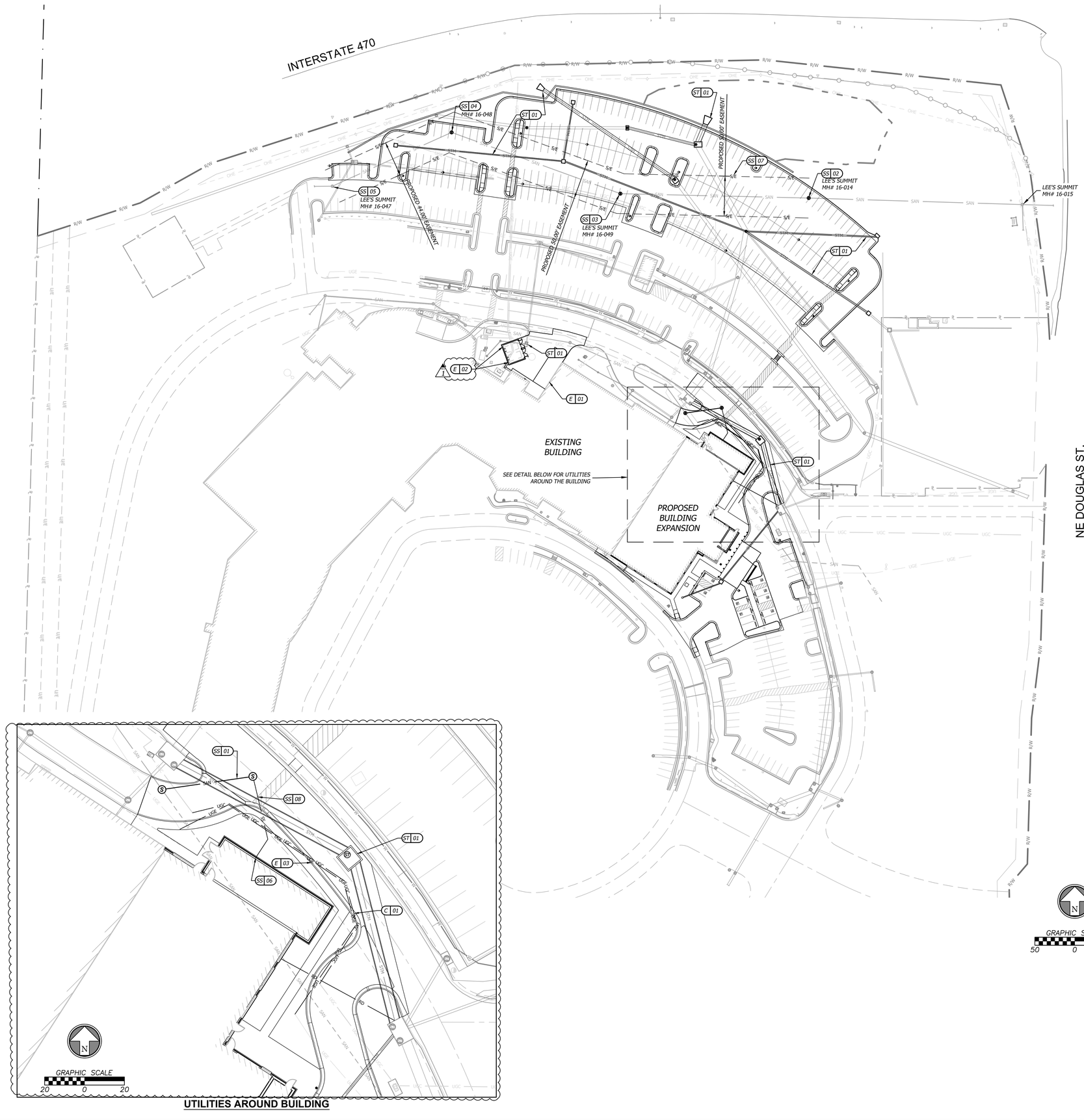
EROSION CONTROL DETAILS

Feb 06, 2023 - 9:33am Plotted By: kurtyoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PDP\033570-DTLS.dwg Layout: Erosion Control Details



UTILITIES AROUND BUILDING

CONSTRUCTION NOTES

E - ELECTRIC SERVICE INFORMATION

01 POWER HOOKUP FOR MOBILE TRAILER IN THIS AREA. SEE ELECTRICAL PLAN FOR SPECS.

02 POWER HOOKUP ON EACH SIDE OF TRASH ENCLOSURE FOR TRASH COMPACTORS. SEE ELECTRICAL PLAN FOR SPECS.

03 POWER LINE TO BE RELOCATED AROUND BUILDING. CONTRACTOR TO COORDINATE WITH EVERGY FOR ROUTE AND EASEMENT RELOCATION. (1)

C - COMMUNICATION INFORMATION

01 TELECOMMUNICATION LINE TO BE RELOCATED AROUND BUILDING. CONTRACTOR TO COORDINATE WITH TELECOMMUNICATION COMPANY FOR ROUTE AND EASEMENT RELOCATION. (1)

ST - STORM SEWER INFORMATION - CITY OF LEE'S SUMMIT

01 SEE STORM SHEETS FOR STORM IMPROVEMENTS.

SS - SANITARY SEWER INFORMATION - CITY OF LEE'S SUMMIT

01 SEE C401 FOR PRIVATE SANITARY MAIN RELOCATION.

02 REPLACE EXISTING MANHOLE. INSTALL CONE AND 5' DIA MANHOLE, INCLUDING NEW BARREL SECTION(S) AS NEEDED. SEE DETAIL 302 ON SHEET C703.
EXISTING FLOW LINE = 961.54
EXISTING TOP ELEVATION = 969.64
PROPOSED TOP ELEVATION = 973.63

03 MANHOLE WAS NOT LOCATED BY SURVEY SO EXACT LOCATION IS UNKNOWN. MANHOLE MAY BE BURIED. REPLACE EXISTING MANHOLE. INSTALL CONE AND NEW 5' DIA MANHOLE, INCLUDING NEW BARREL SECTION(S) AS NEEDED. SEE DETAIL 302 ON SHEET C703.
EXISTING FLOW LINE ~ 958.7 (PER GIS INFORMATION)
EXISTING TOP ELEVATION ~ 967 (PER GIS INFORMATION)
PROPOSED TOP ELEVATION = 982.14 (2)

04 REPLACE EXISTING MANHOLE. INSTALL CONE AND 5' DIA MANHOLE, INCLUDING NEW BARREL SECTION(S) AS NEEDED. SET CONE, RISER RINGS, AND LID. SEE DETAIL 302 ON SHEET C703.
EXISTING FLOW LINE = 957.06
EXISTING TOP ELEVATION = 966.01
PROPOSED TOP ELEVATION = 976.71

05 EXISTING MANHOLE TO REMAIN IN PLACE WITH NO IMPROVEMENTS DONE.
EXISTING FLOW LINE = 955.82
EXISTING TOP ELEVATION = 976.67

06 INSTALL 6" PVC OUT OF BUILDING.
FL OUT OF BUILDING = 981.00

07 REVISED EASEMENT TO BE RECORDED AFTER SANITARY MANHOLES ARE RAISED.

08 INSTALL 6" PVC AT 2% SLOPE MINIMUM AND CONNECT TO MANHOLE.
FL @ MANHOLE = 974.00

UTILITY NOTES

1. *CONTRACTOR SHALL REFER TO ALL SPECIFICATIONS, GUIDELINES, AND INSTALLATION DRAWINGS FROM CITY OF LEE'S SUMMIT FOR THE INSTALLATION OF ALL SANITARY AND WATER MAIN LINES.*
2. *THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION AND FOR MAKING HIS OWN VERIFICATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.*
3. *CONTRACTOR TO ENSURE 6" MINIMUM SEPARATION BETWEEN UTILITIES AT CROSSINGS. CONTRACTOR TO CALL CIVIL IF ANY CONFLICTS BETWEEN UTILITIES ARE FOUND.*

STATE OF MISSOURI
KURT M. YODER
NUMBER PE-2021020064
PROFESSIONAL ENGINEER
03/28/2023
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ASC EXPANSION & RENOVATION
100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
Construction Documents

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01	01/20/2023	Addendum 01
02	02/03/2023	Addendum 02

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Lee's Summit, Missouri
03/28/2023

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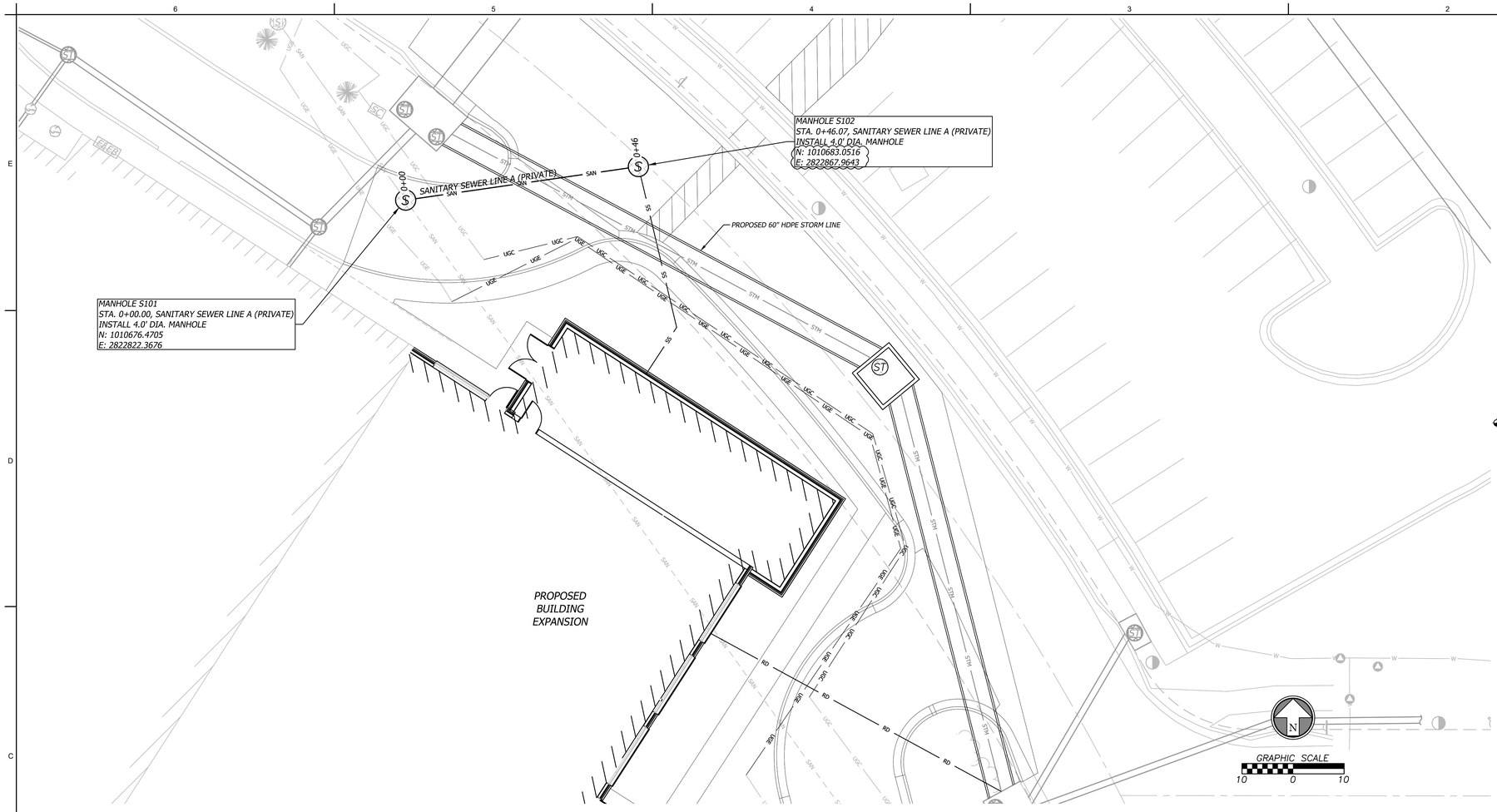
OVERALL UTILITY PLAN

Mar 28, 2023 - 8:15am Plotted By: kurt.yoder V:\03570-st. lukes east\04-DWG\Eng\Sheet\PDP\03570-SHT5-UTIL.dwg Layout: Util Plan



SANITARY SEWER MAIN NOTES

1. Construction of the sanitary sewer main shall follow the standards set forth in the City of Lee's Summit's Standard Specifications.
2. All sewer main lines shall be Polyvinyl Chloride pipe (PVC) SDR-26.
3. Sewer lateral shall be 6" PVC, SDR-26. Laterals shall be located at points shown on the plans, or designated by the Engineer, and shall be constructed to the easement line or as noted on the plans.
4. Only those fittings specifically made for PVC pipe shall be used. Material specifications for fittings are outlined in the City of Lee's Summit's Standard Specifications, section 3500.
5. All sanitary sewers with slopes greater than 20% shall have concrete collars.
6. For minimum clearance of water line over and adjacent to sewer line: 10' horizontal separation, 18" vertical separation. If this cannot be maintained, sanitary sewer main material shall be ductile iron for at least 10 ft on each side of the crossing.
7. All testing shall be conducted by the contractor in the presence of the city inspector.
8. Lengths of pipe shown are center-of-structure to center-of-structure. Northings and Eastings shown for manholes are to center-of-structure.
9. The contractor shall submit shop drawings on all precast structures, pipes, and any materials to be used on this project for approval by the design engineer.
10. The entire proposed sanitary sewer to be constructed by these plans shall be successfully tested for watertightness as outlined in section 3500 of the current City of Lee's Summit's Standard Specifications.

BENCHMARKS (DATUM: NAVD88)

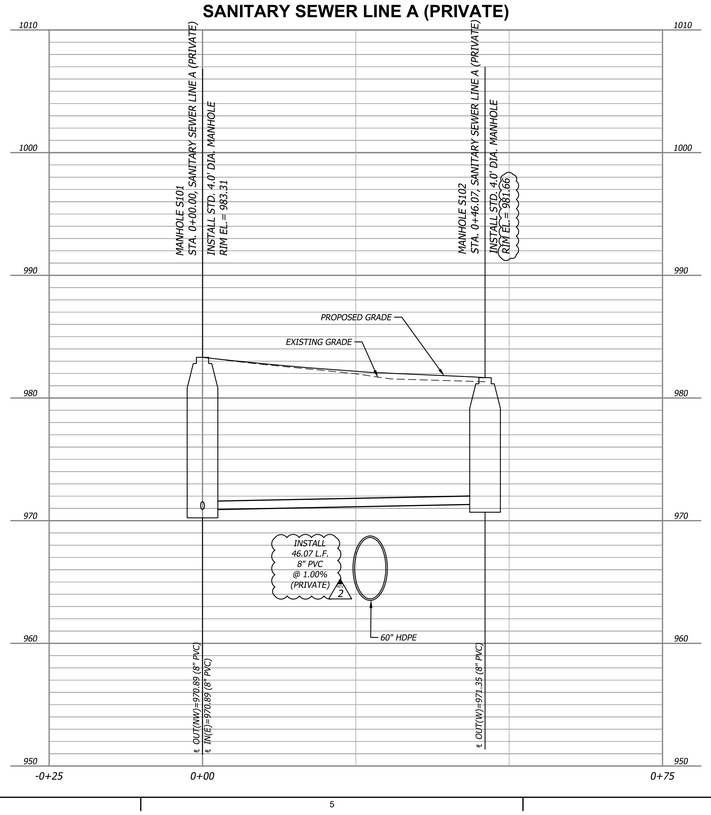
BENCHMARK NUMBER: 1
ELEVATION= 982.88

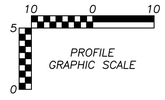
CHISELED SQUARE ON THE FRONT FACE OF A DUAL MANHOLE CURB INLET, LOCATED 49.8 FEET NORTHWEST OF THE NORTHEAST CORNER OF THE NORTH END OF SAINT LUKE'S HOSPITAL.

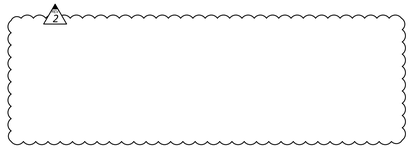
BENCHMARK NUMBER: 2
ELEVATION= 979.35

CHISELED SQUARE ON THE FRONT FACE OF A CURB INLET, LOCATED ±97.4 FEET SOUTHWEST OF THE SOUTHEAST CORNER ON THE NORTH END SAINT LUKE'S HOSPITAL.

SANITARY SEWER LINE A (PRIVATE)







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02	02/03/2023	Addendum 02

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SANITARY PLAN & PROFILE

Mar 28, 2023 - 8:16am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PDP\033570-SHTS-SSMP.dwg Layout: Sm 100 Plan & Profile

SOLID STATE AREA LIGHTING

GALAXY2 SERIES-LED

SPECIFICATIONS

HOUSING
Heavy cast low copper aluminum assembly (A356 alloy, <0.2% copper). Minimum wall thickness is .188". Housing provided with True Level™arm system to connect to arm assembly. All exposed hardware is stainless steel. Internal protected hardware is electro-zinc plated.

✓LED® OPTICAL MODULE
Low copper A356 alloy (<.2% copper) cast aluminum housing. Integrated clear tempered 3/16" glass lens sealed with a continuous silicone gasket protects emitters (LED's) and emitter Reflector-Prism optics, and seals the module from water intrusion and environmental contaminants. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Each emitter is optically controlled by a Reflector-Prism injection molded from H12 acrylic (3 types per module; one from 0° - 50°; one from 50° - 65°; one from 65° - 72°). Each Reflector-Prism has indexing pins for aiming and is secured to an optical plate made of matte black anodized aluminum. The optical plate locates every Reflector-Prism over an emitter. Reflector-Prisms are secured to the optical plate with a UV curing adhesive. The Reflector-Prisms are arrayed to produce IES Type II, III, IV, and V-SQ distributions. The entire Optical Module is field rotatable in 90° increments. Both module and drivers are factory wired using water resistant, insulated cord. Lens, module and drivers are field replaceable.

LED EMITTERS
High Output LED's are driven at 350mA for nominal 1 Watt output each or 525mA for nominal 1.5 Watt output each. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

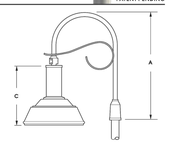
LED DRIVER
UL and CUL recognized High Power Factor, Constant Current LED drivers operate on input voltages from 120-277VAC, 50/60hz. Consult Factory for 347-480VAC. Driver is mechanically fastened to a retaining bracket. Main power quick disconnect provided. Driver has a minimum 4KV of internal surge protection, 10KV & 20KV Surge Protector optional. Dimming and High-Low Driver options available.

FINISH
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability. Texture finish is standard.

PROJECT NAME:

FIXTURE TYPE:

GLX2 PATENT PENDING



Fitter supplied to fit over 2 ⅛" X 3" (73mm X 76mm) tennon.

FIXTURE	A	B	C	D
GLX2	42" 1067mm	24" DIA. 610mm	24" 610mm	24" 610mm
GLXM2	42" 1067mm	18.5" DIA. 470mm	20" 508mm	24" 610mm

2018334

U.S. Architectural Lighting
600 West Avenue O, Palmdale, CA 93551
Phone (661) 233-3000 Fax (661) 233-3001
www.usalitg.com

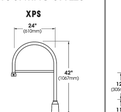
U.S. ARCHITECTURAL LIGHTING

GALAXY2 SERIES - LED

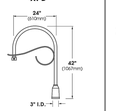
SPECIFICATIONS

MOUNTING STYLES

XPS



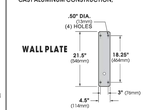
XPD



ARMS ARE HEAVY WALL EXTRUDED ALUMINUM CONSTRUCTION. FOR ADDITIONAL ARM OPTIONS SEE ARM SECTION.

WALL MOUNT

ARM BRACKET EXTRUDED AND CAST ALUMINUM CONSTRUCTION.



✓LED® MODULES

GLX2 E.P.A.= 1.95
Available in: 120, 80 & 64 LED Module

120 LED Module

GLXM2 E.P.A.= 1.56
Available in: 80, 64 & 48 LED Module

80 LED Module

MAX INPUT WATTAGE

# OF LED's	DRIVE CURRENT 350mA	525mA
120	110W	164W
80	91W	136W
64	70W	105W
48	53W	79W

ORDERING INFORMATION

LUMINAIRE	OPTICS	# of LED's	DRIVE CURRENT	COLOR	VOLTAGE	MOUNTING	FINISH	OPTIONS
☐ GLX2 ☐ GLXM2	☐ VLED - II (Type II) ☐ VLED - III (Type III) ☐ VLED - IV (Type IV) ☐ VLED - VSQ (Type VSQ)	☐ GLX2: 120LED, 100LED, 80LED, 64LED ☐ GLXM2: 80LED, 64LED, 48LED	☐ 350mA ☐ 525mA	☐ NW (4000K) Standard ☐ CW (5000K) ☐ WW (3000K) OTHER LED COLORS AVAILABLE CONSULT FACTORY	☐ 120 ☐ 208 ☐ 240 ☐ 277 ☐ 347 ☐ 480	☐ ARM MOUNT ☐ 1 ☐ 3-180 ☐ 3-90 ☐ 3-120 ☐ 4-90 ☐ WALL MOUNT ☐ WM	STANDARD TEXTURED FINISH ☐ BLACK RAL-9005-T ☐ WHITE RAL-9003-T ☐ GREY RAL-7004-T ☐ DARK BRONZE RAL-8019-T ☐ GREEN RAL-6005-T FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9003) SEE USALITG.COM FOR ADDITIONAL COLORS	☐ INTERNAL HOUSE SIDE SHIELDS . . . HS ☐ EXTERNAL HOUSE SIDE SHIELD . . . EHS ☐ DIMMABLE DRIVER(0-10V) . . . . . DIM ☐ HIGH/LOW DIMMING FOR HARDWIRED SWITCHING OR NON-INTEGRATED MOTION SENSOR . . . . . HLSW ☐ PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) . . . PC-V ☐ 10KV SURGE PROTECTOR . . . . . 10SP ☐ 20KV SURGE PROTECTOR (277V & 480Y Only) 20SP

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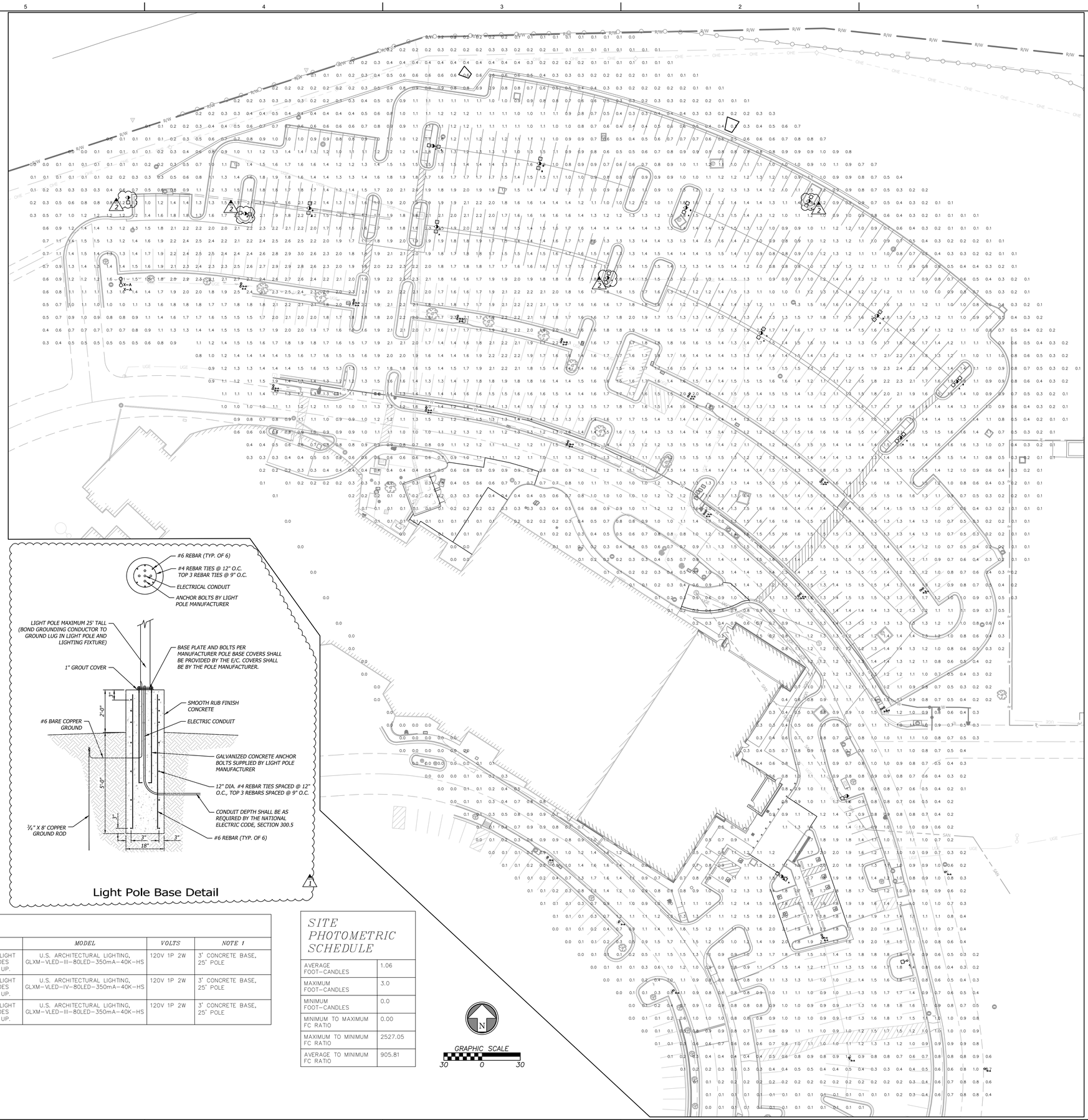
U.S. ARCHITECTURAL LIGHTING



Light Pole Base Detail

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	QUANTITY	DESCRIPTION	LAMP	MODEL	VOLTS	NOTE 1
A	○□	20	FABRICATED METAL HOUSING, 1 LED MODULE CONSISTING OF:	(80) 80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	U.S. ARCHITECTURAL LIGHTING, GLXM-VLED-III-80LED-350mA-40K-HS	120V 1P 2W	3' CONCRETE BASE, 25' POLE
B	○□	9	FABRICATED METAL HOUSING, 1 LED MODULE CONSISTING OF:	(80) 80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	U.S. ARCHITECTURAL LIGHTING, GLXM-VLED-IV-80LED-350mA-40K-HS	120V 1P 2W	3' CONCRETE BASE, 25' POLE
X–A	○	36	FABRICATED METAL HOUSING, 1 LED MODULE CONSISTING OF:	(80) 80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	U.S. ARCHITECTURAL LIGHTING, GLXM-VLED-III-80LED-350mA-40K-HS	120V 1P 2W	3' CONCRETE BASE, 25' POLE

SITE PHOTOMETRIC SCHEDULE

AVERAGE FOOT-CANDLES	1.06
MAXIMUM FOOT-CANDLES	3.0
MINIMUM FOOT-CANDLES	0.0
MINIMUM TO MAXIMUM FC RATIO	0.00
MAXIMUM TO MINIMUM FC RATIO	2527.05
AVERAGE TO MINIMUM FC RATIO	905.81

GRAPHIC SCALE
30 0 30

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PROFESSIONAL ENGINEER
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12/20/2023

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03/08/2023

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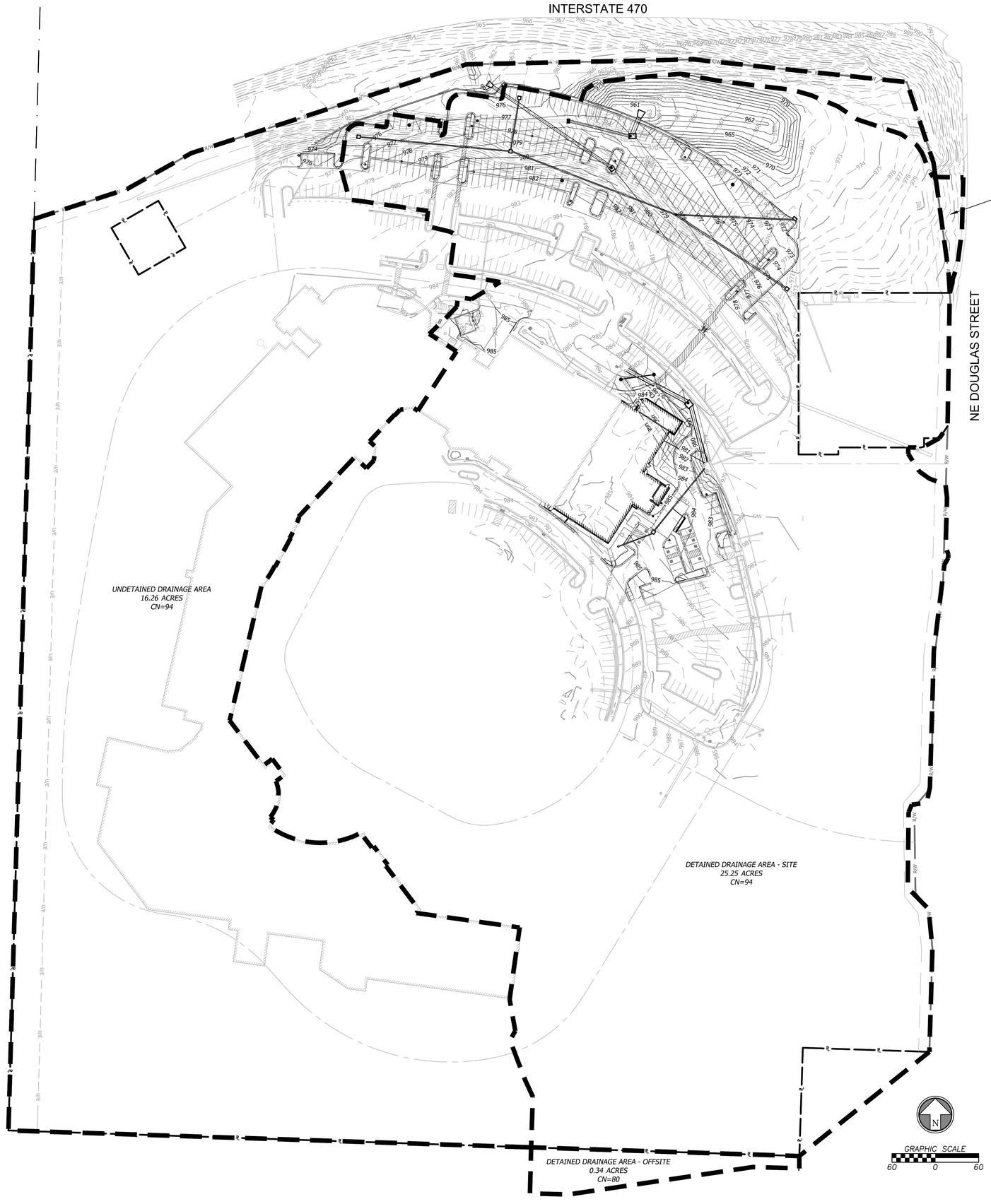
PHOTOMETRIC PLAN

Feb 10, 2023 - 6:28am Plotted By: kurt.yoder V:\03357O-St. Lukes East\04-DWG\Eng\Sheet\Y2R\03357O-SHTS-LTNG-Y2R.dwg Layout: PHOTOMETRIC PLAN



DRAINAGE LEGEND

- DRAINAGE AREA BOUNDARY
- 000 — PROPOSED STRUCTURE IDENTIFIER
- DRAINAGE DIRECTION
- Field — AREA/DIRECTION OF DRAINAGE BOUNDARY
- 980 — PROPOSED FINISH GRADE MAJOR CONTOUR
- 982 — PROPOSED FINISH GRADE MINOR CONTOUR
- 980 — EXISTING GRADE MAJOR CONTOUR
- 982 — EXISTING GRADE MINOR CONTOUR
- SSW — PROPOSED STORM SEWER LINE
- RD — PROPOSED ROOF LINE DRAIN
- ℄ — PROPERTY LINE
- R/W — RIGHT-OF-WAY LINE

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OVERALL DRAINAGE MAP

Mar 28, 2023 - 8:16am Plotted By: kurt.yoder V:\033570-st. lukes east\104-DWG\Eng\Sheet\PSP\033570--SHTS-DMAP.dwg Layout: Overall Drainage Map

INTERSTATE 470

DRAINAGE AREA 202
0.44 ACRES

DRAINAGE AREA 301
0.87 ACRES

DRAINAGE AREA 501
1.46 ACRES

DRAINAGE AREA 901
0.41 ACRES

DRAINAGE AREA 902
0.03 ACRES

DRAINAGE AREA 903
0.04 ACRES

STORM NOTE

1. Pipe lengths shown are measured from center of structure or to the end of end section. All pipes shall be field staked to the inside wall face of the structure.
2. Utility lines and structures in fill areas below pipe grade shall not be constructed until all consolidation of the fill is complete and so approved by the on-site Geotechnical engineer.
3. All pipe shall be placed in trench conditions. Place a minimum of 18 inches of fill over proposed pipe before trenching and pipe installation. Proposed fill shall be placed in accordance with project requirements.
4. The dimensions for all structures are from inside face of structure to inside face of structure.
5. All curb inlets and other structures set at low points are to be set level. All other curb inlets are to be set with the grade of the top of curb or pavement.
6. Precast structures may be used at contractor's option. All storm structures shall have a smooth uniform poured concrete invert from invert in to invert out.
7. The lids of all precast structures shall be grouted to the top of the walls.
8. Northing, eastings, and alignment stationing shown are center of structure or to end of end section.
9. The first dimension shown is the "L" dimension and the second is the "W" dimension on rectangular structures. See details.
10. All HDPE pipe shall be ADS N-12, or approved equal, meeting AASHTO M294, type S or ASTM F2306. The pipe shall have a smooth interior and annular exterior corrugations. Pipe joints shall be jointed using a bell & spigot joint meeting AASHTO M252, AASHTO M294 or ASTM F2306.The joint shall be watertight according to the requirements of ASTM D3212 and gaskets shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant supplied by the manufacturer shall be used on the gasket and bell during assembly.
11. Fittings for plastic pipe shall conform to AASHTO M252, AASHTO M294, or ASTM F2306. All wyes shall be dual wall wyes consistent with the ADS N-12 pipe watertight connections.
12. All RCP pipe shall be Class III per ASTM C-76, with "o-ring" or single offset, rubber gasketed joint.

DRAINAGE LEGEND

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- DRAINAGE DIRECTION
- Field — AREA/DIRECTION OF DRAINAGE BOUNDARY
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- 982 — PROPOSED FINISH GRADE MINOR CONTOUR
- 980 — EXISTING GRADE MAJOR CONTOUR
- 982 — EXISTING GRADE MINOR CONTOUR
- SAN — PROPOSED STORM SEWER LINE
- RD — PROPOSED ROOF LINE DRAIN
- PROPERTY LINE
- R/W — RIGHT-OF-WAY LINE

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EXPANSION DRAINAGE MAP

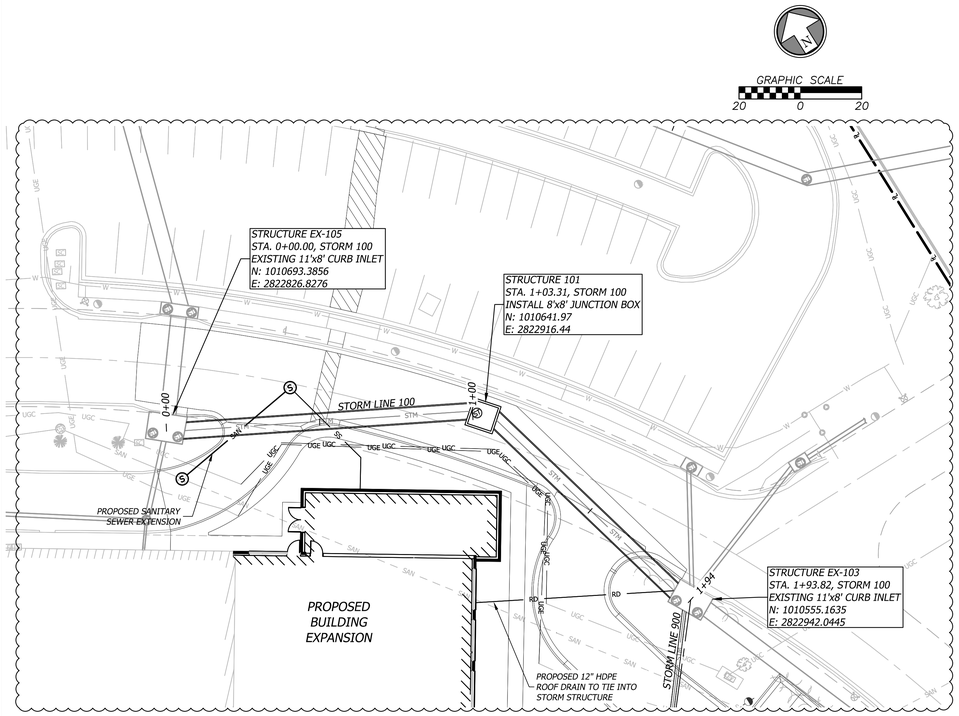
May 26, 2023 - 8:16am Plotted By: kurt.yoder V:\03570-ai, lukes east\04-DWG\Eng\Sheet\PDP\03570-SHT5-DMAP.dwg Layout: Site Drainage Map

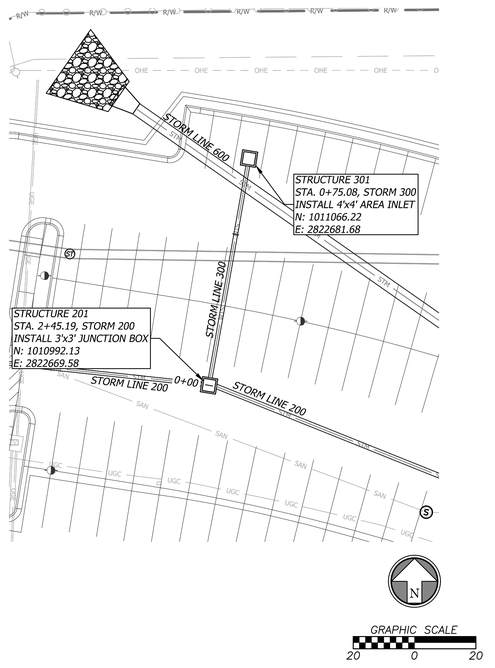
STORM LEGEND

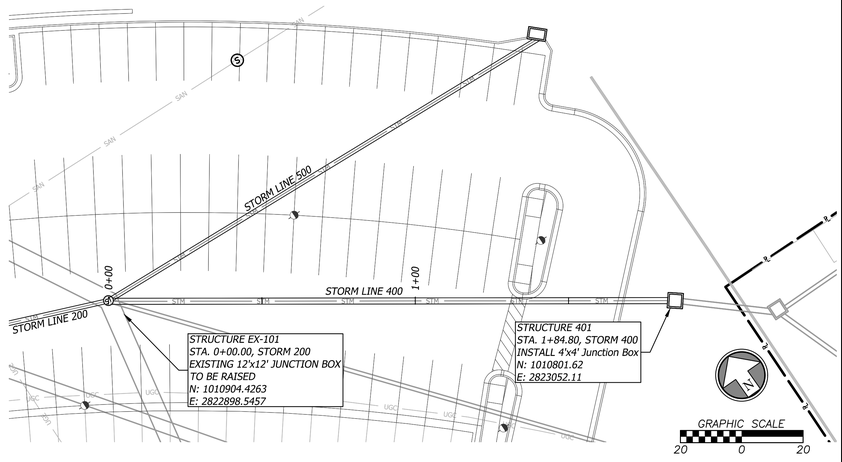
- RD — PROPOSED ROOF LINE DRAIN
- STM — PROPOSED STORM SEWER LINE
- R/W — RIGHT-OF-WAY LINE
- ℄ — PROPERTY LINE

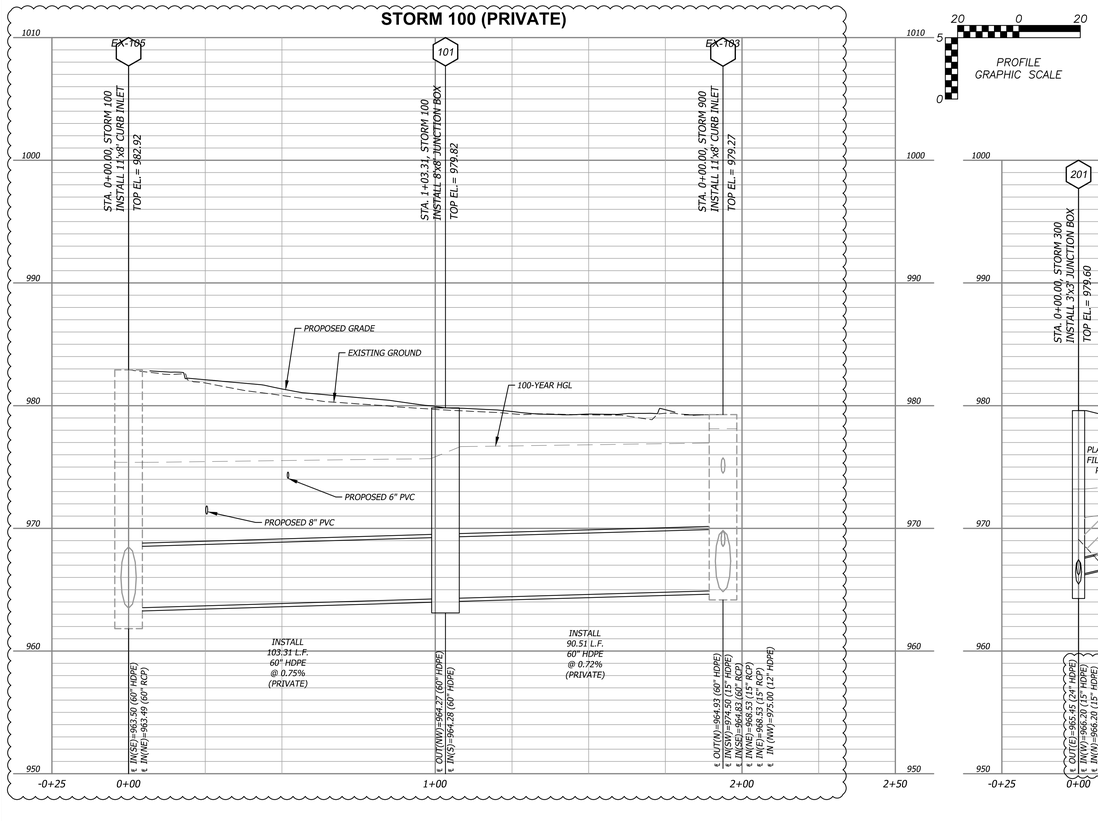
STORM NOTES:

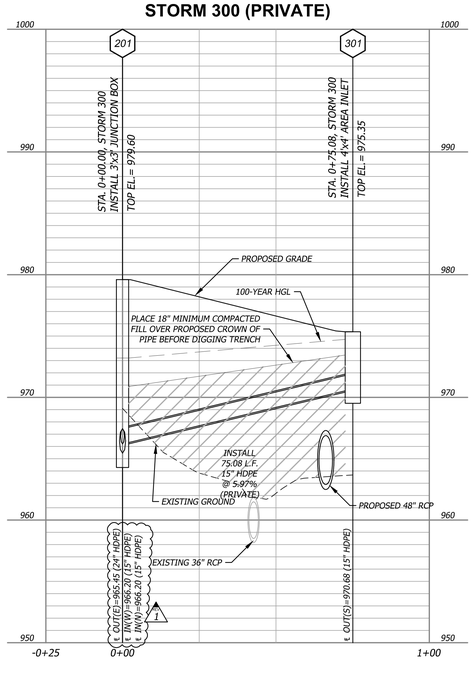
See C501 for storm notes.

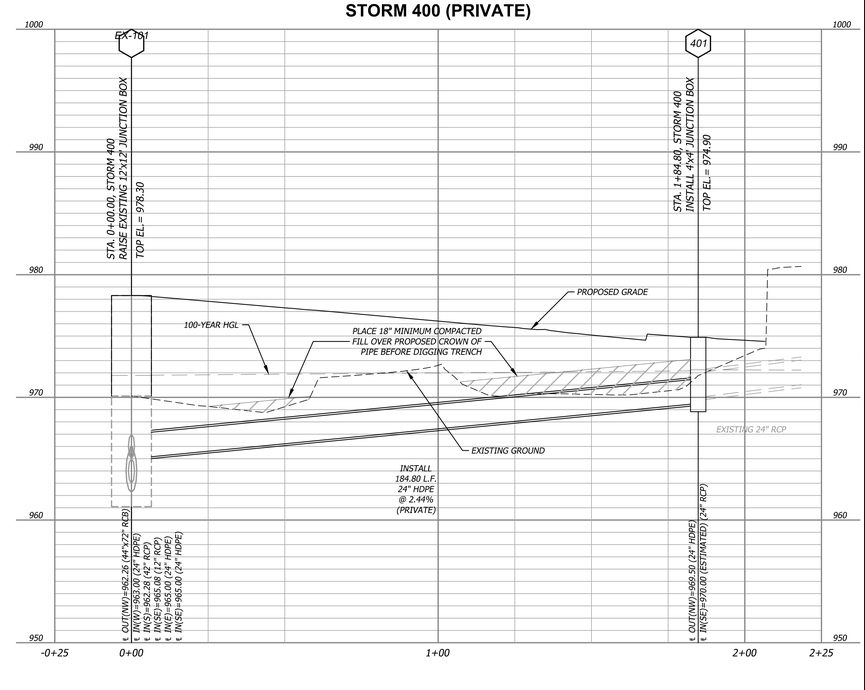












STATE OF MISSOURI
KURT M. YODER
NUMBER PE-2021020064
PROFESSIONAL ENGINEER
03/28/2023

Kurt M. Yoder, Civil Engineer
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Construction Documents

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Checked By	KMY

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STORM PLAN & PROFILE

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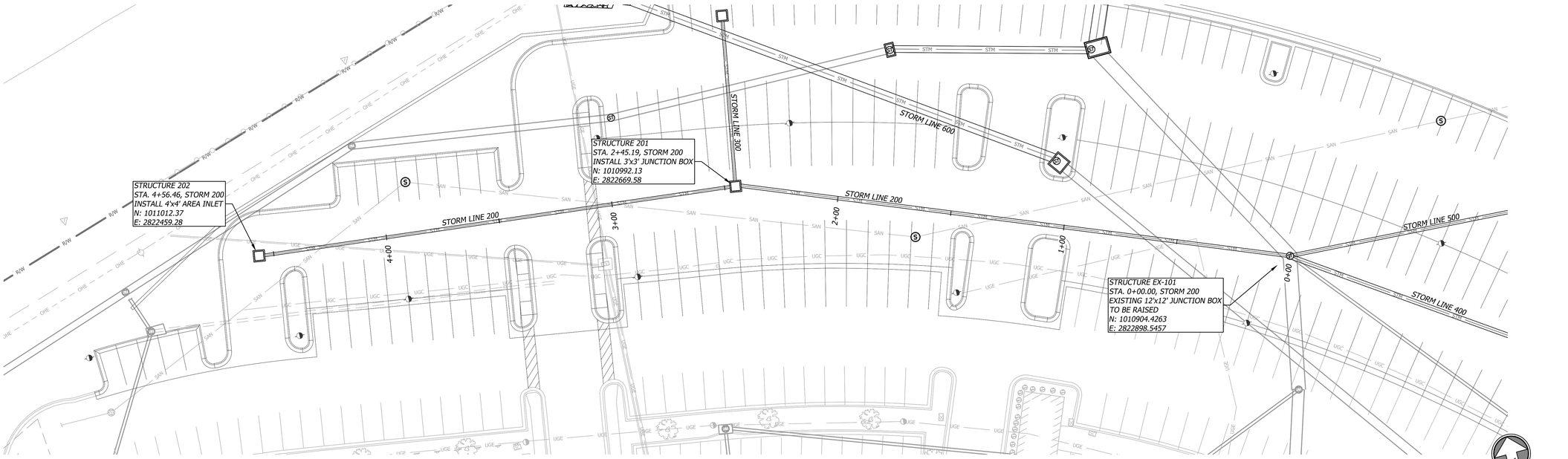
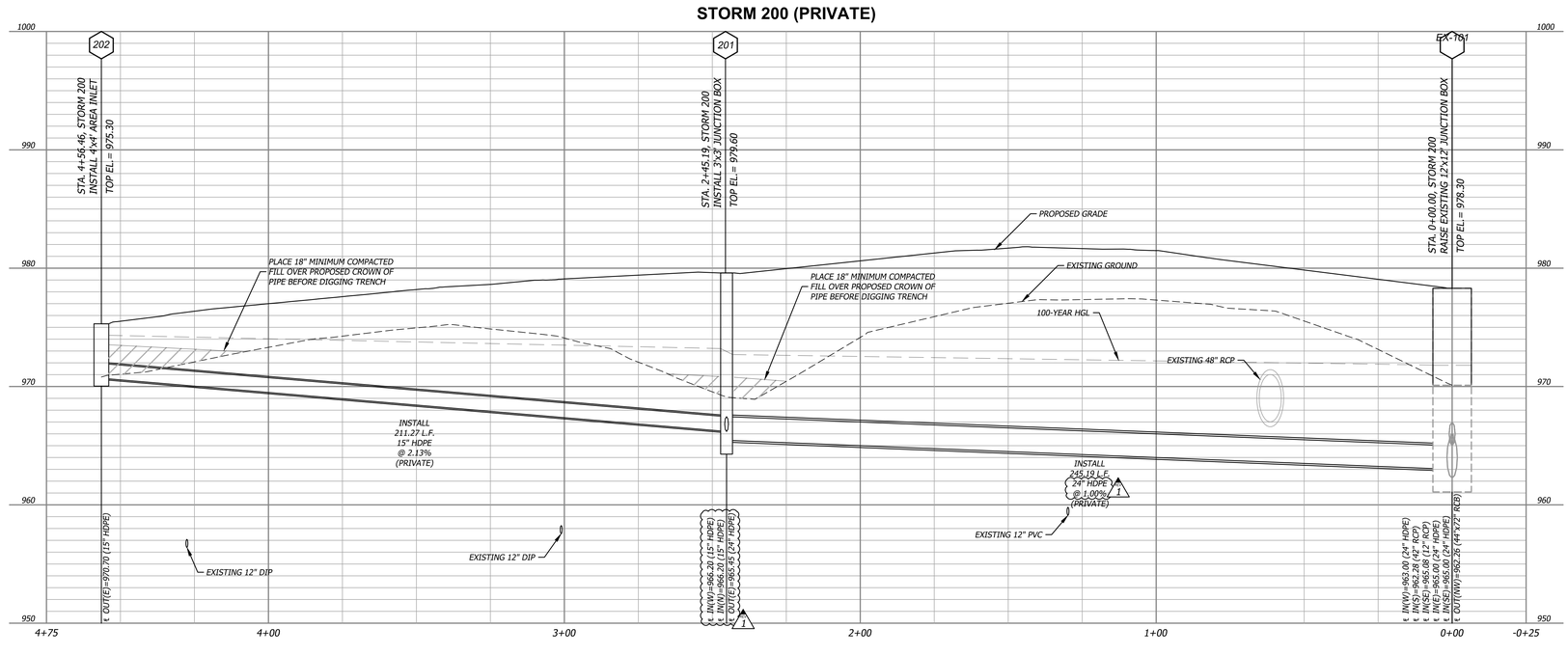
STORM LEGEND

- RD — PROPOSED ROOF LINE DRAIN
- STM — PROPOSED STORM SEWER LINE
- R/W — RIGHT-OF-WAY LINE
- ℄ — PROPERTY LINE

STORM NOTES:

See C501 for storm notes.





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02/06/2023

Kurt M. Yoder, Civil Engineer
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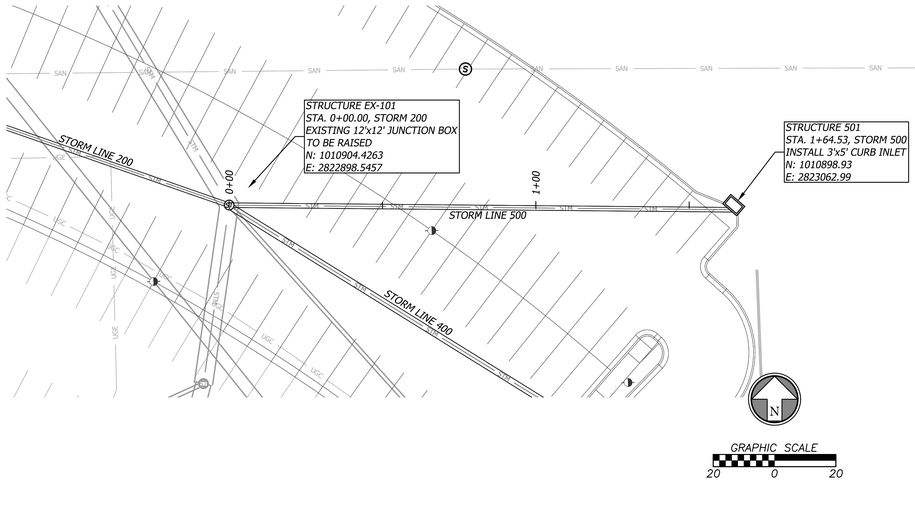
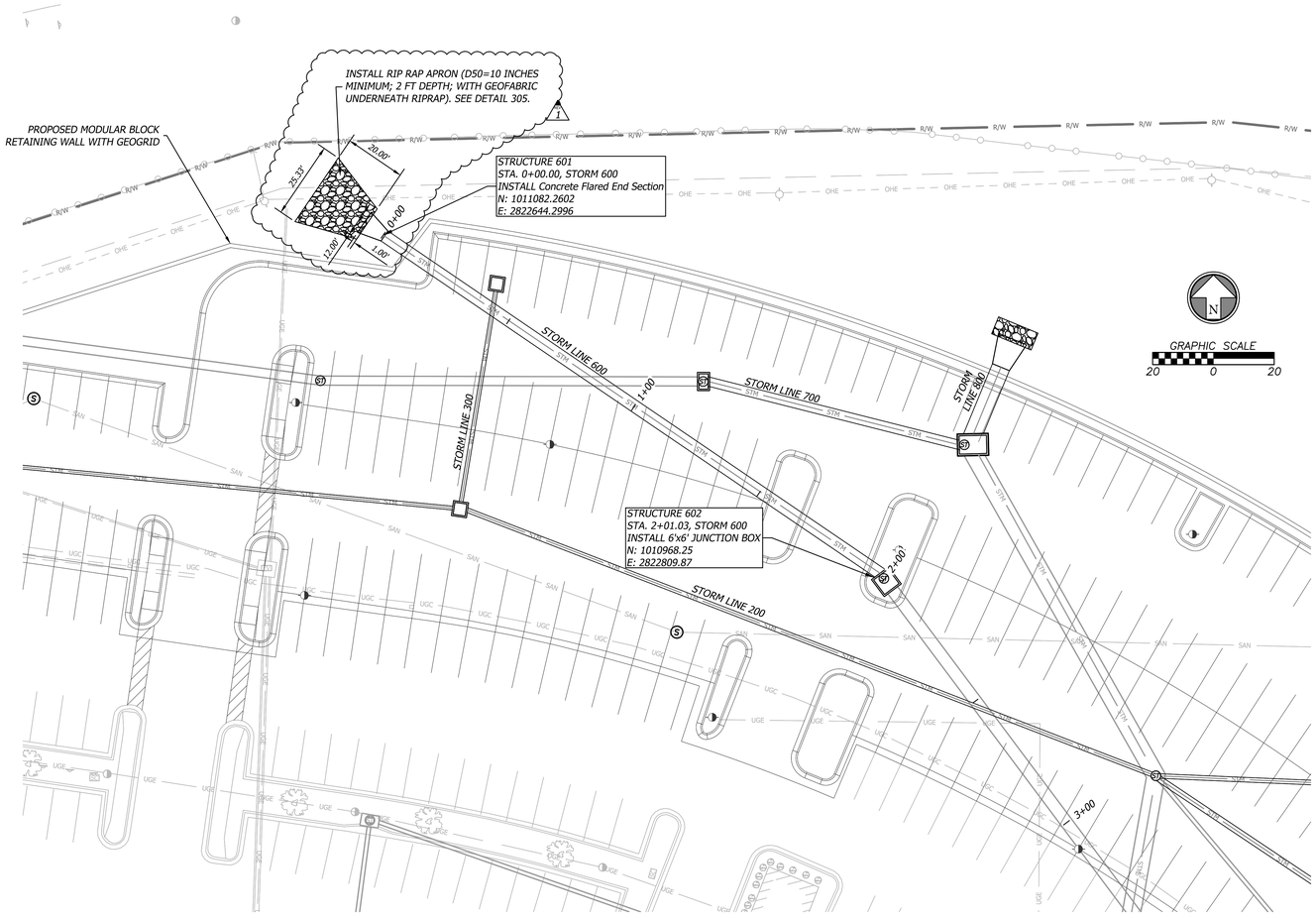
STORM LEGEND

- RD — PROPOSED ROOF LINE DRAIN
- SSW — PROPOSED STORM SEWER LINE
- R/W — RIGHT-OF-WAY LINE
- ℄ — PROPERTY LINE

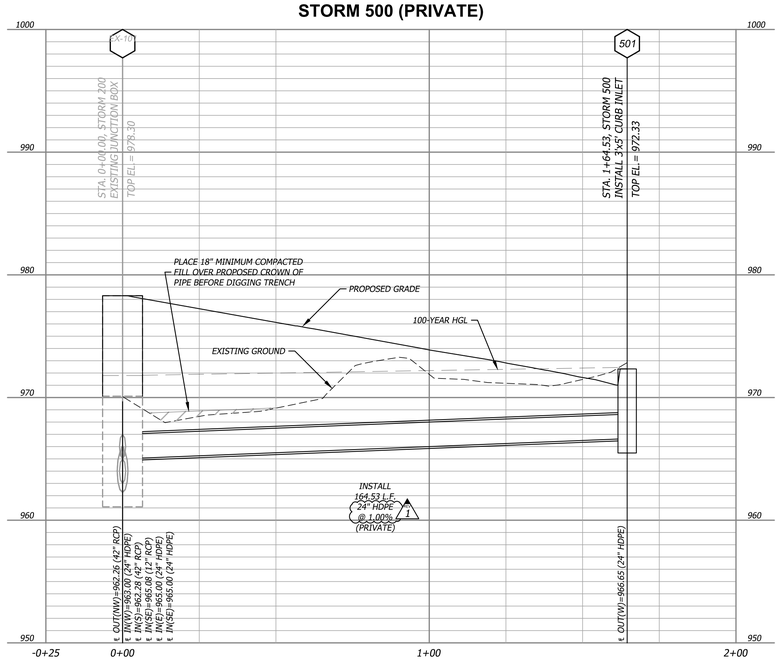
STORM NOTES:

See C501 for storm notes.





STORM 500 (PRIVATE)



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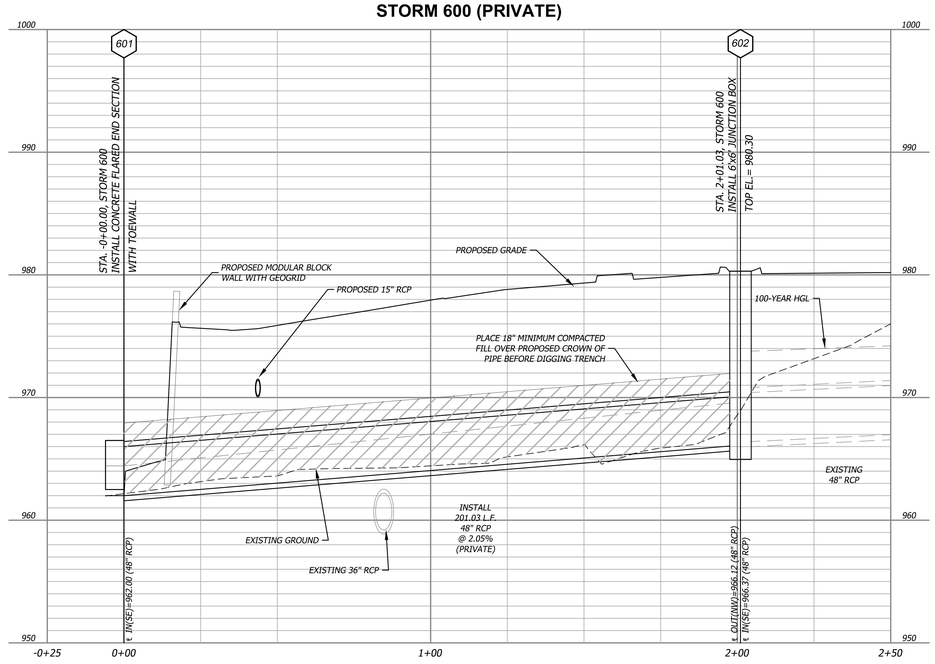

PROFILE GRAPHIC SCALE
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STORM LEGEND

- RD — PROPOSED ROOF LINE DRAIN
- STM — PROPOSED STORM SEWER LINE
- R/W — RIGHT-OF-WAY LINE
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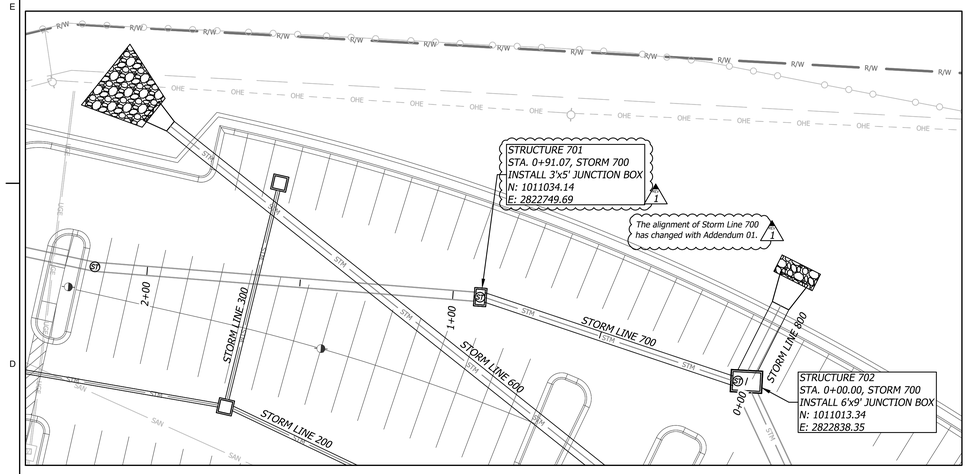
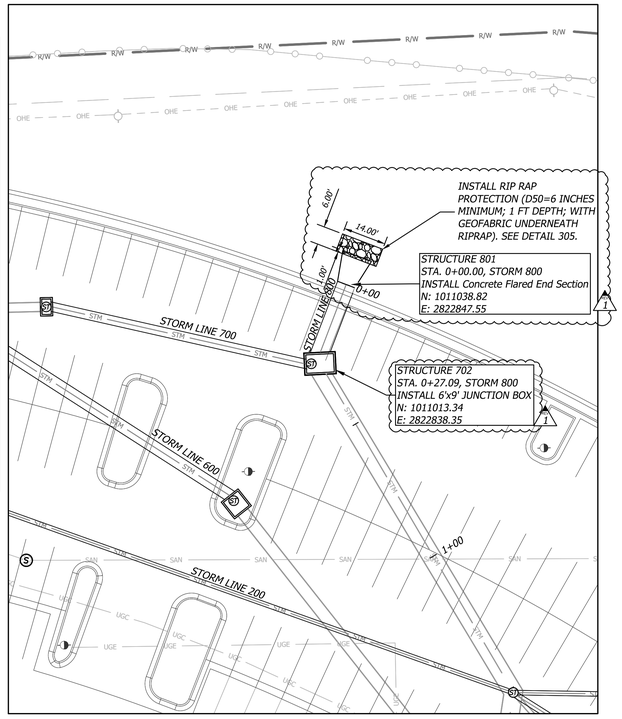
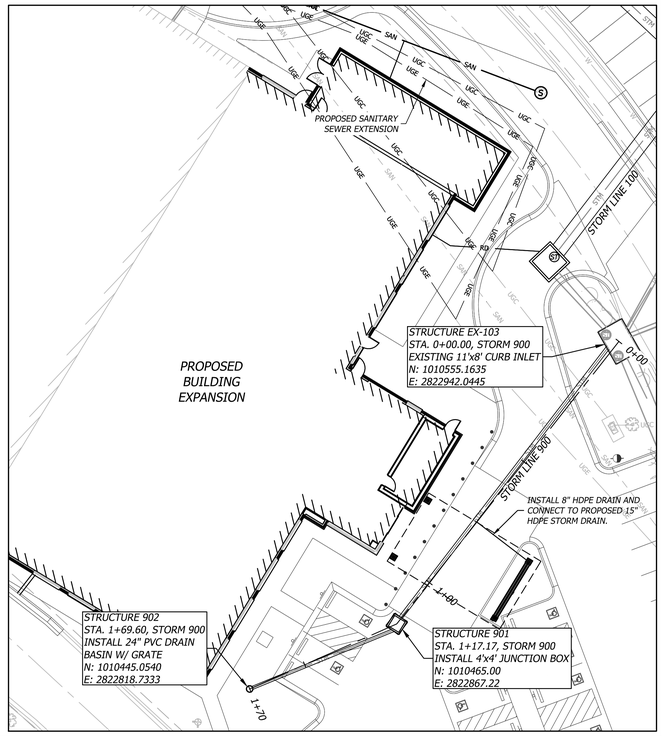
STORM NOTES:

See C501 for storm notes.







GRAPHIC SCALE
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PROFILE GRAPHIC SCALE
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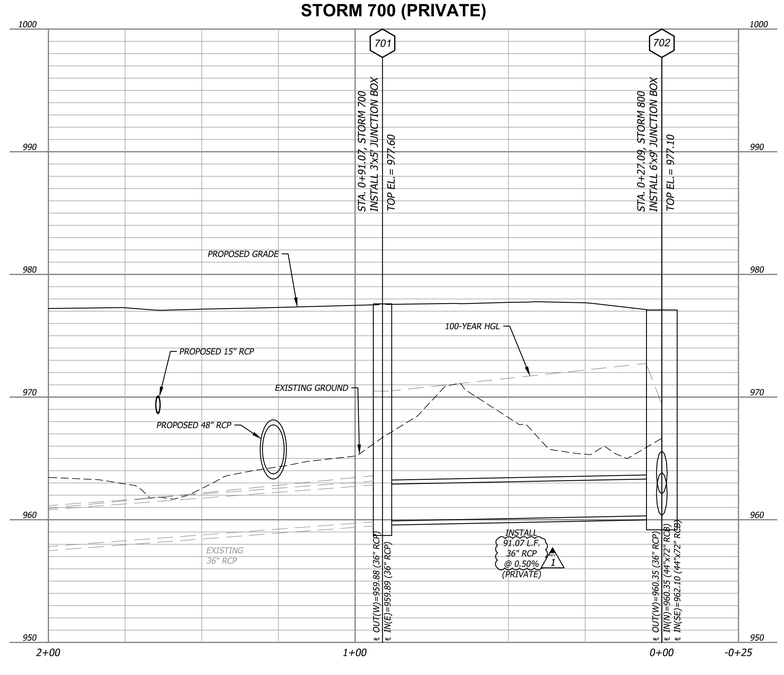

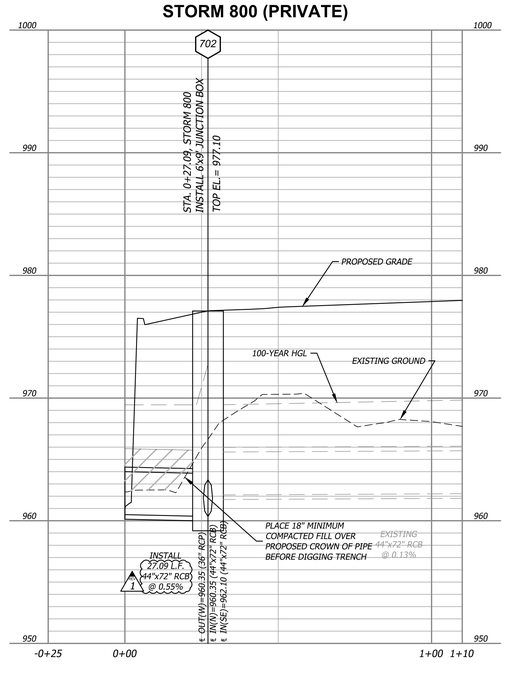

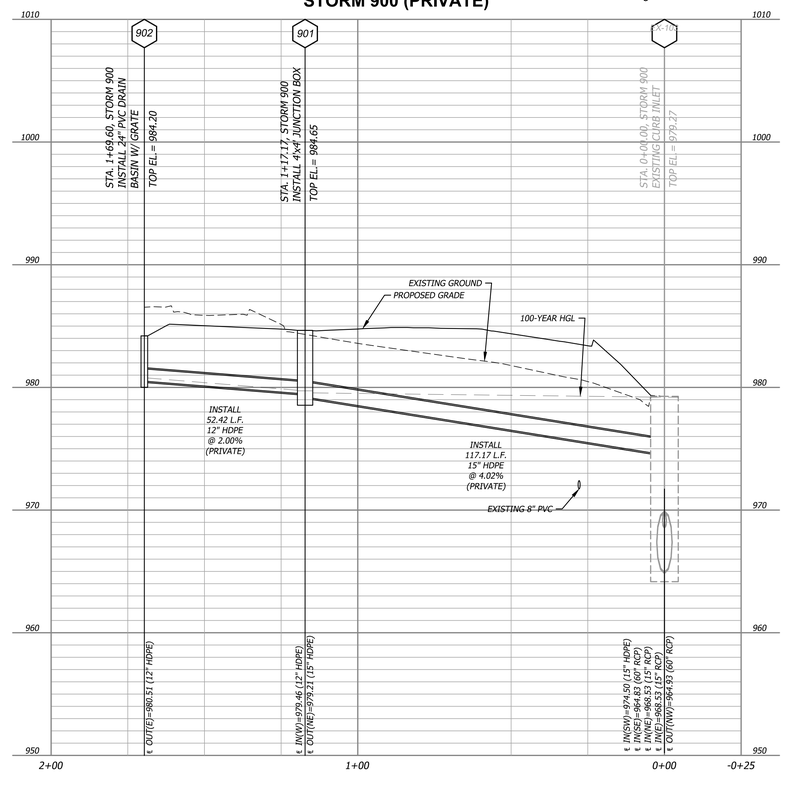

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STORM PLAN & PROFILE

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DETENTION NOTES:
24-HOUR, 25-YEAR STORM EVENT
PEAK WATER SURFACE ELEVATION = 968.15 ft
PEAK STORAGE VOLUME = 1.55 ac-ft

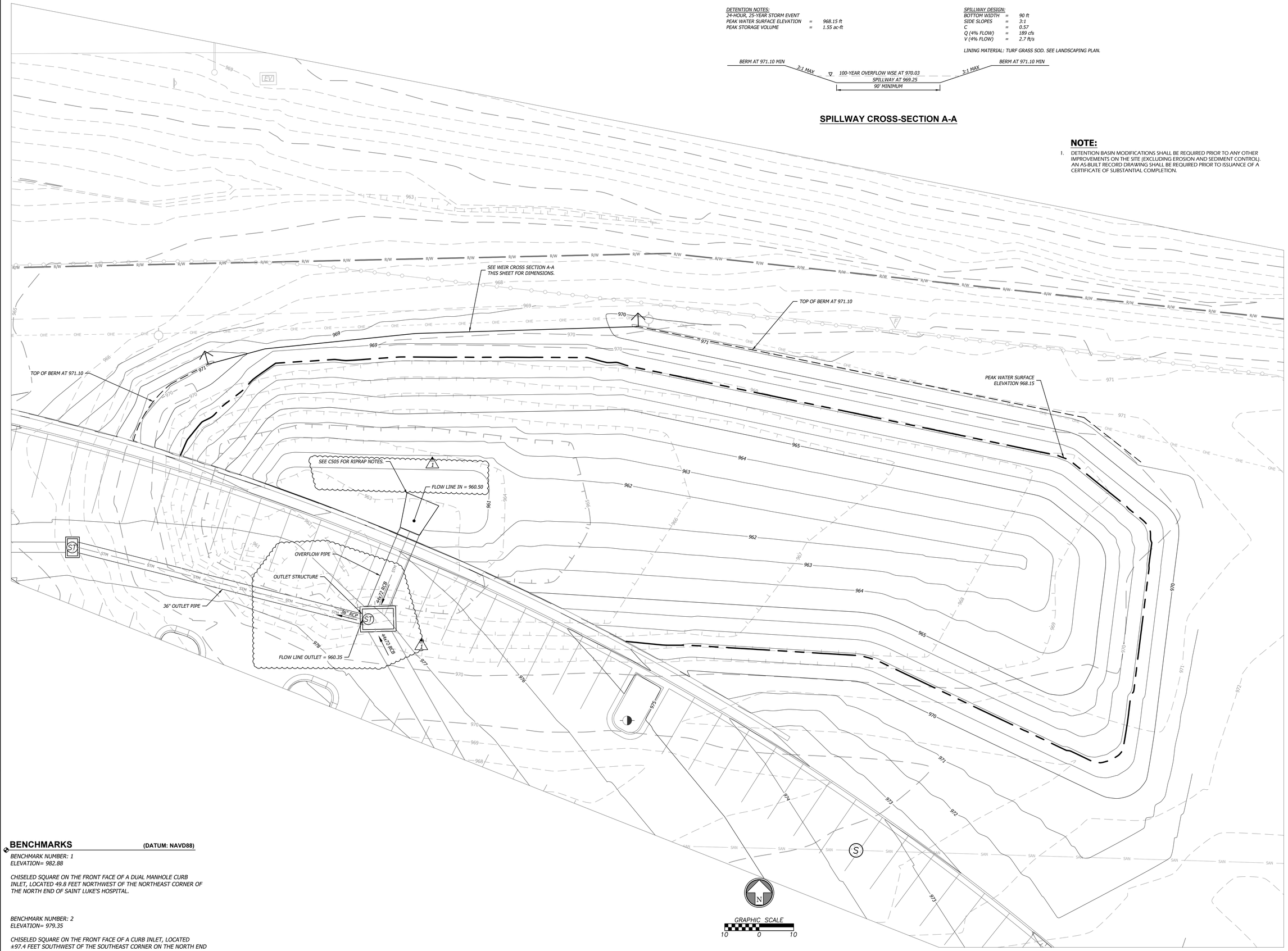
SPILLWAY DESIGN:
BOTTOM WIDTH = 90 ft
SIDE SLOPES = 3:1
C = 0.57
Q (4% FLOW) = 189 cfs
V (4% FLOW) = 2.7 ft/s

LINING MATERIAL: TURF GRASS SOD. SEE LANDSCAPING PLAN.

SPILLWAY CROSS-SECTION A-A

NOTE:

1. DETENTION BASIN MODIFICATIONS SHALL BE REQUIRED PRIOR TO ANY OTHER IMPROVEMENTS ON THE SITE (EXCLUDING EROSION AND SEDIMENT CONTROL). AN AS-BUILT RECORD DRAWING SHALL BE REQUIRED PRIOR TO ISSUANCE OF A CERTIFICATE OF SUBSTANTIAL COMPLETION.



BENCHMARKS (DATUM: NAVD88)

BENCHMARK NUMBER: 1
ELEVATION= 982.88

CHISELED SQUARE ON THE FRONT FACE OF A DUAL MANHOLE CURB INLET, LOCATED 49.8 FEET NORTHWEST OF THE NORTHEAST CORNER OF THE NORTH END OF SAINT LUKE'S HOSPITAL.

BENCHMARK NUMBER: 2
ELEVATION= 979.35

CHISELED SQUARE ON THE FRONT FACE OF A CURB INLET, LOCATED ±97.4 FEET SOUTHWEST OF THE SOUTHEAST CORNER ON THE NORTH END SAINT LUKE'S HOSPITAL.

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02/06/2023

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DETENTION BASIN PLAN

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SECTION 32 32 16
PRECAST MODULAR BLOCK RETAINING WALL

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes: Furnishing materials and labor required for the design and construction of a ReCon precast modular block retaining wall.
B. Related Sections:
   1. Section 312000 Earth Moving

1.2 REFERENCES

A. Precast Modular Block Units:
   1. ASTM C-33 Specification for Concrete Aggregates
   2. ASTM C-39 Test Method for Compressive Strength of Cylindrical Concrete Specimens
   3. ASTM C-94 Specification for Ready-Mixed Concrete
   4. ASTM C-138 Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
   5. ASTM C-143 Test Method for Slump of Hydraulic-Cement Concrete
   6. ASTM C-260 Specification for Air-Entraining Admixtures for Concrete
   7. ASTM C-494 Specification for Chemical Admixtures for Concrete
   8. ASTM C1611 Test Method for Slump Flow of Self-Consolidating Concrete
   9. ASTM C-1776 Standard Specification for Wet-Cast Precast Modular Block Retaining Wall Units
B. Drain Pipe:
   1. ASTM D-3034 Standard Specification for Type PSM (Vinyl Chloride) (PVC) Sewer Pipe and Fittings
   2. ASTM F-2648 Standard Specification for 2 to 60 inch [50 to 1500 mm] Annular Corrugated Profile Wall Polyethylene (PE) Pipe and Fittings for Land Drainage Applications
C. Geosynthetics:
   1. ASTM D-4595 Tensile Properties of Geotextiles - Wide Width Strip
   2. ASTM D-4873 Standard Guide for Identification, Storage and Handling of Geosynthetics
   3. ASTM D-5262 Unconfined Tension Creep Behavior of Geosynthetics
   4. ASTM D-5321 Standard Test Method for Determining the Coefficient of Soil and Geosynthetic or Geosynthetic and Geosynthetic Friction by the Direct Shear Method
   5. ASTM D-5818 Standard Practice for Obtaining Samples of Geosynthetics from a Test Section for Assessment of Installation Damage
   6. ASTM D-5970 Standard Test Method for Deterioration of Geotextiles from Outdoor Exposure
   7. ASTM D-6637 Standard Test Method for Determining Tensile Properties of Geogrids by the Single- or Multi-Rib Tensile Method
   8. ASTM D-6638 Standard Test Method for Determining Connection Strength Between Geosynthetic Reinforcement and Segmental Concrete Units
   9. ASTM D-6706 Standard Test Method for Measuring Geosynthetic Pullout Resistance in Soil
D. Engineering Design:
   1. NCMA Design Manual for Segmental Retaining Walls, Current Edition
   2. AASHTO LRFD Bridge Design Specifications, Current Edition
   3. International Building Code (IBC), Current Edition
   4. Minimum Design Loads for Buildings and Structures, ASCE 7, Current Edition
E. Soils:
   1. ASTM D-422 Standard Test Method for Particle-Size Analysis of Soils
   2. ASTM D-448 Standard Classification for Sizes of Aggregates for Road and Bridge Construction
   3. ASTM D-698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/f3) (600 kN-m/m3)

   4. ASTM D-1241 Standard Specification for Materials for Soil-Aggregate Subbase, Base and Surface Courses
   5. ASTM D-1556 Standard Test Method for Density and Unit Weight of Soil in Place by the Sand Cone Method
   6. ASTM D-1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/f3) (2700 kN-m/m3)
   7. ASTM D-2487 Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System)
   8. ASTM D-3080 Standard Test Method for Direct Shear Test of Soils Under Consolidated Drained Conditions
   9. ASTM D-4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
   10. ASTM D-4767 Test Method for Consolidated-Undrained Triaxial Compression Test for Cohesive Soils
   11. ASTM D-6938 Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
   12. ASTM D-G51 Standard Test Method for Measuring pH of Soil for Use in Corrosion Testing
F. ReCon Construction Detail Drawings: www.reconwalls.com

1.3 DEFINITIONS

A. ReCon Retaining Wall Unit: Concrete, modular facing block provided by an authorized manufacturer under license to ReCon Retaining Wall Systems, Inc.
B. Geogrid: A geosynthetic material manufactured of high tensile materials specifically for the purpose of reinforcing and creating a structural soil mass.
C. Drainage Aggregate: Clean, crushed rock located within and immediately behind ReCon units to facilitate drainage and avoid compaction in close proximity to ReCon wall units.
D. Reinforced Soil: Soil zone extending from the Drainage aggregate zone to the back of the embedded geogrid.
E. Foundation Soil: Soil zone immediately beneath the retaining wall facing units, the wall leveling pad and the reinforced soil zone.
F. Retained Soil: Soil immediately behind retaining wall facing and drainage aggregate for modular gravity structures or behind the reinforced soil for wall that utilize geogrid.
G. Construction Drawings: Approved final plan for construction prepared and stamped by the wall design engineer licensed to practice in the state where the retaining wall is located.

1.4 Submittals

A. Contractor shall submit Manufacturer's product data and installation instructions for approval.
B. Contractor shall submit Manufacturer's test reports certifying that the ReCon units manufactured at their production facility meet the requirements of this specification and the requirements of the Construction Drawings.
C. Unless provided within these project documents and/or the project drawings, contractor shall submit two sets of the Construction Drawings for all ReCon retaining walls on the project.
   1. The design shall be prepared by a Professional Engineer licensed to practice in the state where the retaining wall is located.
   2. The design shall be per NCMA Design Guidelines for Segmental Retaining Walls, or the AASHTO Standard Specifications for Highway Bridges, whichever is applicable as determined by the retaining wall design engineer.
   3. Construction Drawings shall include:
      a. The retaining wall layout and retaining wall heights.
      b. Proper placement, lengths and types of geogrid reinforcement where necessary.
      c. Typical wall sections.

      d. Types, locations and properties of all drainage materials, appurtenances and special installation requirements not covered in this specification.
      e. Retaining wall elevation views.
      f. Any soils information or testing conducted in addition to that included within the project drawings and specifications.
      g. Design assumptions.
D. If geogrid reinforcement is required in the final engineered construction drawings, submit manufacturer's product literature, product testing reports and a twelve inch or larger sample of each type to be used in wall construction.
E. Submit gradation reports for aggregates used for the wall leveling pad, unit / drainage fill and for select reinforced fill if required in the final engineered wall design.
F. All submittals must be provided and reviewed prior to the start of retaining wall construction.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Contractor shall inspect all products at delivery to determine that the proper materials have been delivered and are usable. Damaged material shall not be incorporated into the work.
B. ReCon retaining wall units shall be stored in a location and manner that protects against excessive weathering and damage.
C. Contractor shall prevent ReCon units from excessive soiling and coming in contact with substances which may stain or adhere to the finished visual surfaces of the unit.
D. Faces of the ReCon Block shall be free of excessive chipping, cracking and stains.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Contractor shall have successfully installed at least three projects similar to that of this project within the last two years. Contractor shall maintain at least one mechanic on site at all times that worked on one or more of these previous installations.
B. Owner shall employ the services of an independent geotechnical or materials engineering firm to provide soil testing and quality assurance inspection for wall construction and soils work. Contractor shall provide any quality control testing or inspection not provided by the Owner.
C. Retaining Wall Design Engineer Qualifications: The Retaining Wall Design Engineer shall be licensed to practice in the state in which the project located. Additionally, the Retaining Wall Design Engineer shall be independently capable of performing all retaining wall analysis calculations (internal and external stability, seismic analysis, water analysis, and global stability) and have designed at least three wall projects similar to that of this project.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Only licensed and authorized manufacturers of:
   1. ReCon Wall Systems, Inc.
      7600 West 27th St., #229
      St Louis Park, MN 55426
      (952) 922-0027 Phone
      (952) 922-0028 Fax
      www.reconwalls.com

2.2 MATERIALS

A. ReCon retaining wall units.
   1. The block unit shall consist of concrete with the average 28-day compressive strength of no less than 4000 psi.

   2. Concrete shall have air entrainment by volume (as measured in the plastic state in accordance with ASTM C172) of:
      a. 5.5 – 8.5 percent, or
      b. In conformity with ASTM C94, latest revision.
   3. Exterior dimensions of the face shall be 48-inches by 16-inches for full and corner unit, and 24-inches by 16-inches for half unit.
   4. Depth of unit should be as per Construction Drawings and is available in depths from 24-inches up to 84-inches (dimensions in inches: 24, 39, 45, 60, 66, 72, 78, 84).
   5. ReCon Units used shall maintain tolerances of:
      a. Height: +/- 3/16-inch
      b. Width: +/- 1/2-inch unless field cut for fitting purposes.
      c. Depth: No less than the unit design depth (i.e. 24-inch, 39-inch, etc.) with the textured face portion of the block is considered as 4-inches
   6. Special shape units should be obtained and used where indicated on the final engineered construction drawings. Reference ReCon Drawing #101 for overview of standard unit types.
   7. ReCon Unit Face Texture
      a. Shall be "North Shore Granite"
B. Geogrid Reinforcement: Geosynthetic reinforcement shall be high tensile geogrid or geotextile manufactured specifically for soil reinforcement applications.
   1. Construction Drawings shall indicate the type, strength, location and lengths of reinforcement used.
   2. The geosynthetic manufacturer shall provide all relevant testing to the wall design engineer for incorporation in the wall design and shall be included in the submittal for the Construction Drawings.
   3. No substitutions of geosynthetic shall be allowed that was not evaluated in the Construction Drawings.
C. Base Leveling Pad: The wall base leveling pad material shall consist of a compacted crushed stone base or non-reinforced concrete as indicated in the Construction Drawings.
D. Drainage Aggregate: Drainage aggregate shall consist of clean 3/4" crushed stone or gravel meeting the requirements of the Construction Drawings.
E. Reinforced Soil: All reinforced soil, borrow or imported, shall meet all requirements of the Construction Drawings. Reinforced soils, by gradation, shall have no more than 35 percent passing the number 200 sieve for walls less than 20-feet in height and no more than 15 percent passing the number 200 sieve for walls greater than 20-feet in height.
F. Drainage Pipe: If required in Construction Drawings, drainage pipe shall be perforated or slotted PVC pipe manufactured in accordance with ASTM D-3034 or ASTM D-2412. Drainage pipe may also be covered with a geotextile filter fabric.
G. Unit Adhesive: Adhesive shall be a premium, construction grade suitable for concrete and exterior applications.

2.3 FINISHES

A. ReCon retaining wall color
   1. Finished wall shall be left in natural (as-cast) color.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify locations of utilities and existing structures prior to excavation.
B. Examine the Project site and evaluate conditions where the ReCon retaining wall will be constructed. Notify the proper supervising authority in writing of any conditions that may interfere with the proper construction of the ReCon wall or delay completion.
C. Promptly notify the wall design engineer of site conditions which may affect wall performance, soil conditions observed other than those assumed, or other conditions that may require a reevaluation of the wall design.

3.2 EXCAVATION

A. Contractor shall excavate to the lines and grades shown on the construction drawings. The contractor shall be careful not to disturb the base beyond the lines indicated.
B. Foundation soils shall be excavated as required for footing base / leveling pad dimensions shown on the construction drawings, or as directed by the wall engineer.
C. Over-excavated areas shall be filled with suitable base or backfill material and compacted to 95 percent standard proctor.

3.3 FOUNDATION SOILS PREPARATION

A. Foundation soils shall be evaluated by a Geotechnical Engineer or Owners Representative to ensure that the bearing soils meet or exceed the design conditions or assumptions.
B. Compact foundation soil zone to 95 percent standard proctor prior to installing base / leveling pad.

3.4 BASE / LEVELING PAD

A. Base shall be located as indicated on the Construction Drawings and shall have a minimum thickness of 6-inches. Base materials are to be as specified by the wall engineer (generally crushed stone, 3/4-inch minus, or similar).
B. Width of the base pad must extend a minimum of 6-inches in front and 6-inches in back of the ReCon Base Block footprint.
C. Base material shall be compacted so as to provide a smooth, hard surface on which to place the first course of units.
D. Compact base material to 95 percent of standard proctor.
E. Base shall be prepared to ensure full contact of the wall unit with base material. Spacing or gaps between units shall no exceed 1/2-inch.
F. Contractor may elect to substitute a portion of the specified granular base materials with a lean, unreinforced concrete topping.
G. When a reinforced footing is required by the Construction Drawings, it shall be located below the frost line.

3.5 UNIT INSTALLATION

A. First course of units shall be Base Block units and shall be placed in full contact with the base material.
B. Check units for level from side-to-side, front to back, and check to maintain unit batter front-to-back.
C. Place unit faces in contact side to side and avoid any gaps greater than 1/2-inch.
D. Fill and compact fill to grade in front of embedded units prior to compaction behind the wall units.
E. Fill voids between ReCon units with 3/4-inch clean crushed rock to a distance of one foot behind the unit depth unless otherwise instructed in the Construction Drawings.
F. Sweep and clean the top of each course before setting additional courses.
G. Lay each successive course making sure that the bottom recess is in full contact with the unit locators of the course below. Pull unit forward as far as possible. Backfill and compact soil behind the units.
H. Check and maintain level and wall batter by use of shims when necessary.
I. Follow ReCon recommended procedures to maintain acceptable running bond when constructing curved walls and / or corners. Build in accordance with Construction Drawings or ReCon Construction Detail Drawings.
J. Handle units with proper lifting devices that have been certified for the loads associated with the weights of the units. Avoid applying forces to the lifting loops in excess of the normal force associated with the weight of the unit (i.e., avoid dynamic loads from bouncing or swinging of a unit). If the unit is to be transported over a significant distance in the field, it is recommended that a CABLE be used in lieu of a chain.

3.6 GEOGRID INSTALLATION

A. Install geosynthetic reinforcement in accordance with manufacturer's recommendations and the Construction Drawings.
B. Locate geosynthetic reinforcement at elevations and to the lengths shown on the Construction Drawings.
C. Prior to installation of geosynthetic reinforcement, level and compact backfill material to the level of the reinforcement layer.
D. Reinforcement design strength direction must be oriented perpendicular to wall face.
E. Position reinforcement on ReCon units over the tongue and groove and to within 2-inches of the front exposed face. The next course of units shall be placed such that the geogrid is deformed over the tongue and groove. The next course of units must be slid forward such that the back edge of the groove on this unit is up against the back edge of the tongue on the lower unit with the geogrid pinched between the tongue and groove. Hold in place by installing the next course of units.
F. Remove all wrinkles or folds in reinforcement by pulling taut prior to backfill placement. Secure using soil staples, stakes or hand tension until reinforcement is covered with sufficient fill to maintain tensioned position.
G. Reinforcement shall be continuous throughout the embedment length. Splicing along reinforcement strength direction is not allowed.
H. Position reinforcement sections side-by-side to provide 100 percent coverage along wall face.
I. Where curved wall sections cause overlap areas in reinforcement, maintain at least 3-inches of soil between layers where overlap occurs.

3.7 REINFORCED BACKFILL PLACEMENT

A. Wall fill material shall be placed in lifts no greater than 8-inches in depth and shall be less if necessary to achieve necessary compaction.
B. Compact backfill material to 95 percent of standard proctor.
C. Only hand-operated compaction equipment shall be used within 3-feet of the back of the ReCon unit. Heavy-duty compaction equipment should be kept a minimum of 5-feet from the back of the ReCon unit to avoid wall rotation.
D. Wherever possible, backfill should be placed beginning at the face of the wall. Backfill shall be placed, spread, and compacted in a manner that minimizes the development of wrinkles, folds or movement of geogrid.
E. Tracked construction equipment shall not be operated directly on the geogrid. A minimum backfill thickness of 6-inches is required prior to operation of tracked vehicles over the geogrid. Turning of tracked vehicles should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.
F. Rubber tired equipment may pass over the geogrid reinforcement at slow speeds, (less than 10 MPH). Avoid sudden braking and sharp turning.
G. At the conclusion of each day's work, slope backfill at both the crest and bottom of wall away from wall face to prevent surface drainage from scouring or ponding.
H. During wall construction, the General Contractor shall be responsible for coordination of other project site operations so as to avoid adjacent construction site drainage from effecting wall construction area.
I. Upon completion of wall construction work, the General Contractor shall:
   1. Ensure finished grading directs normal drainage away from the finished wall.
   2. Ensure other trades do not operate heavy equipment or excavate near the wall and reinforced soil zone.

3.8 OTHER CONSTRUCTION DETAILS

A. ReCon provides a number of Construction Detail Drawings (see Section 1.2F) which can be found on ReCon's website (www.reconwalls.com) and should be referred to for guidance on wall specific applications.

3.9 SITE TOLERANCES

A. Straight walls
   1. Vertical Alignment: +/- 1.5-inches over any 12-feet distance and no more than +/- 3-inches over the entire length of wall.
B. Horizontal Alignment Control:
   2. Corners and radius location: +/- 1-foot to theoretical location indicated on the Grading Plan.
   3. Radii: +/- 2-feet from theoretical lines indicated on the Grading Plan.
C. Wall Batter at Completion of Work: +/- 2-degrees from the design batter and no batter less than 2-degrees.

3.10 FIELD QUALITY CONTROL

A. Contractor shall be responsible for proper installation and quality control of all ReCon wall components and appurtenant materials.
B. Owner shall, at their expense, retain a qualified professional to monitor and perform quality assurance checks of the installer's work.
C. Quality Assurance should include foundation soil inspection, frequent backfill compaction testing, verification of geotechnical design parameters and compliance with Construction Drawings and Project Specifications.

3.11 CLEANING

A. After completion of wall installation, remove construction debris and restore any adjacent finished areas affected by wall construction to their pre-construction state.
B. Wash wall face to remove soiling and stains. Do not use acid or detergents that my "burn" or discolor face.

This page added as a part of Addendum 01. 1

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Job Number	3-21037
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Checked By	KMY

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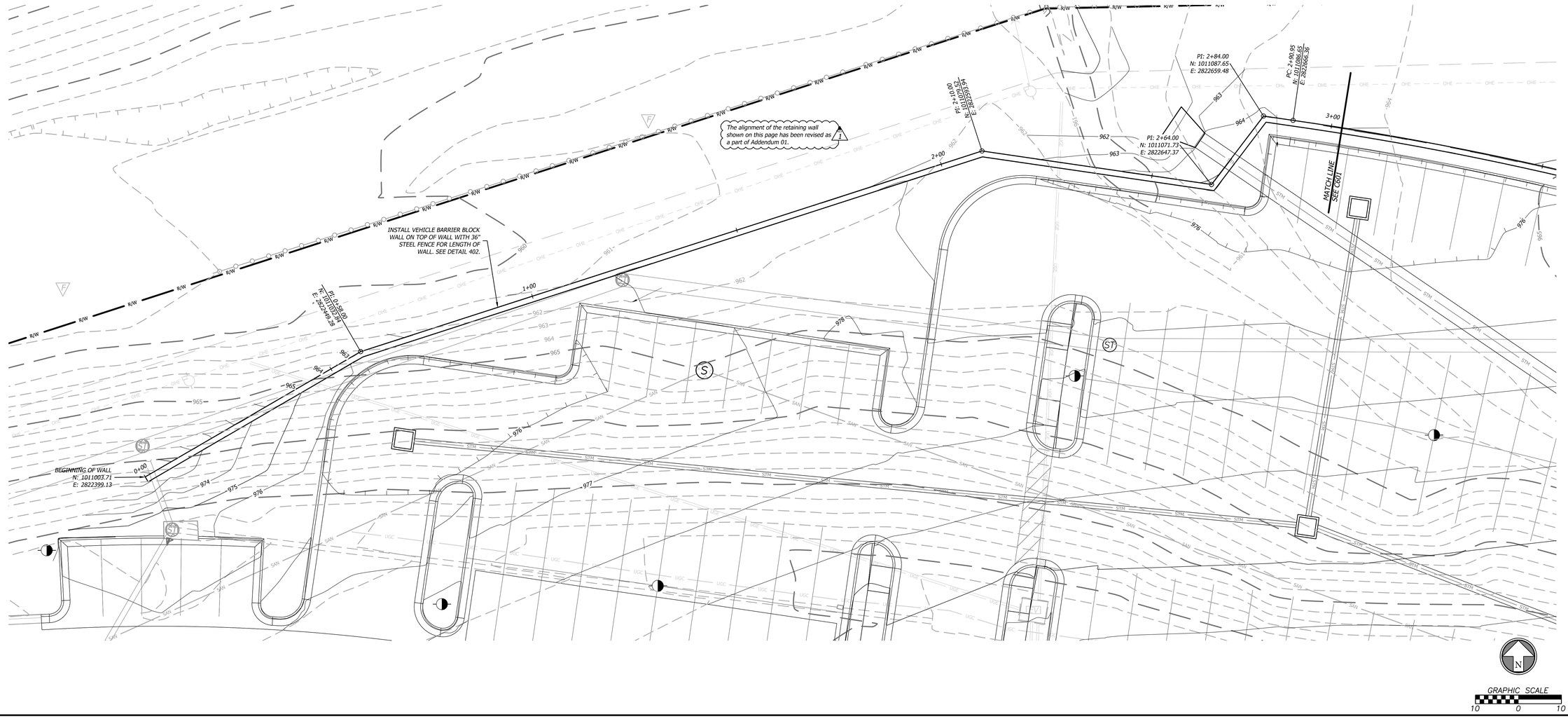
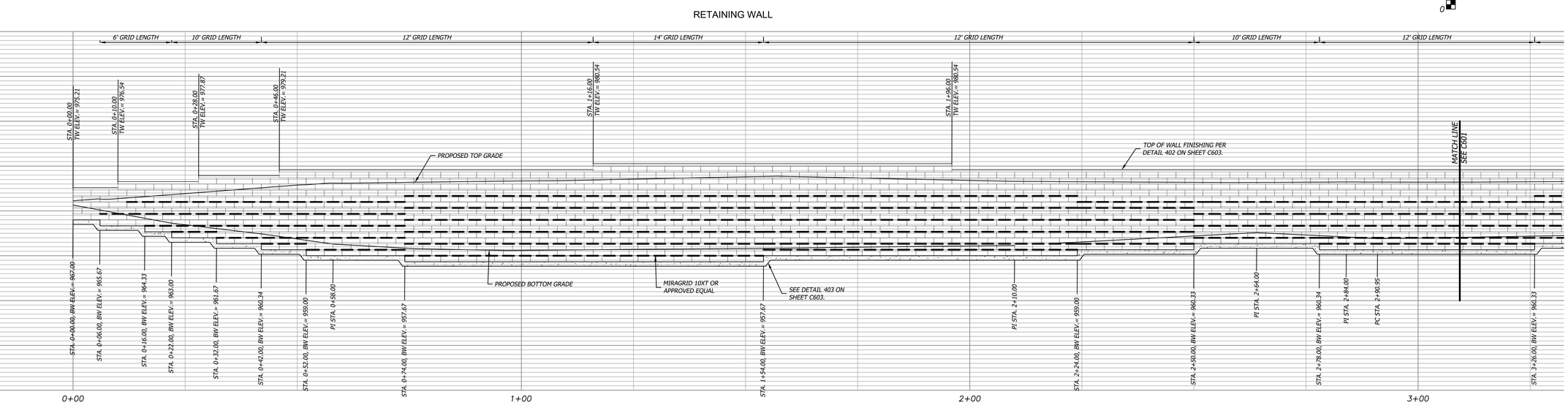
WALL SPECIFICATIONS

Feb 06, 2023 – 9:36am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PSP\033570-SHTS-WALL-DTLS.dwg Layout: Wall Specifications





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RETAINING WALL PLAN & PROFILE 1

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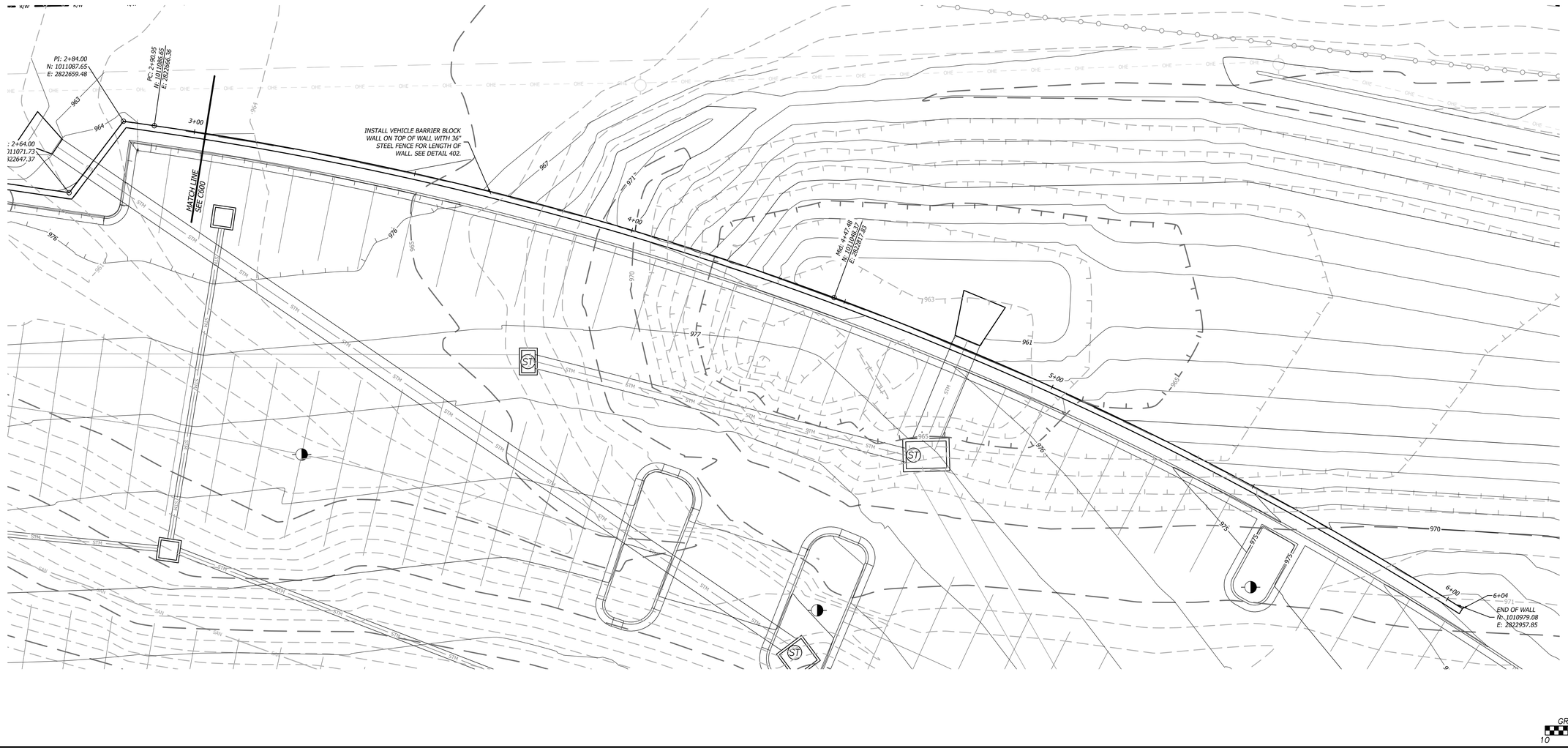

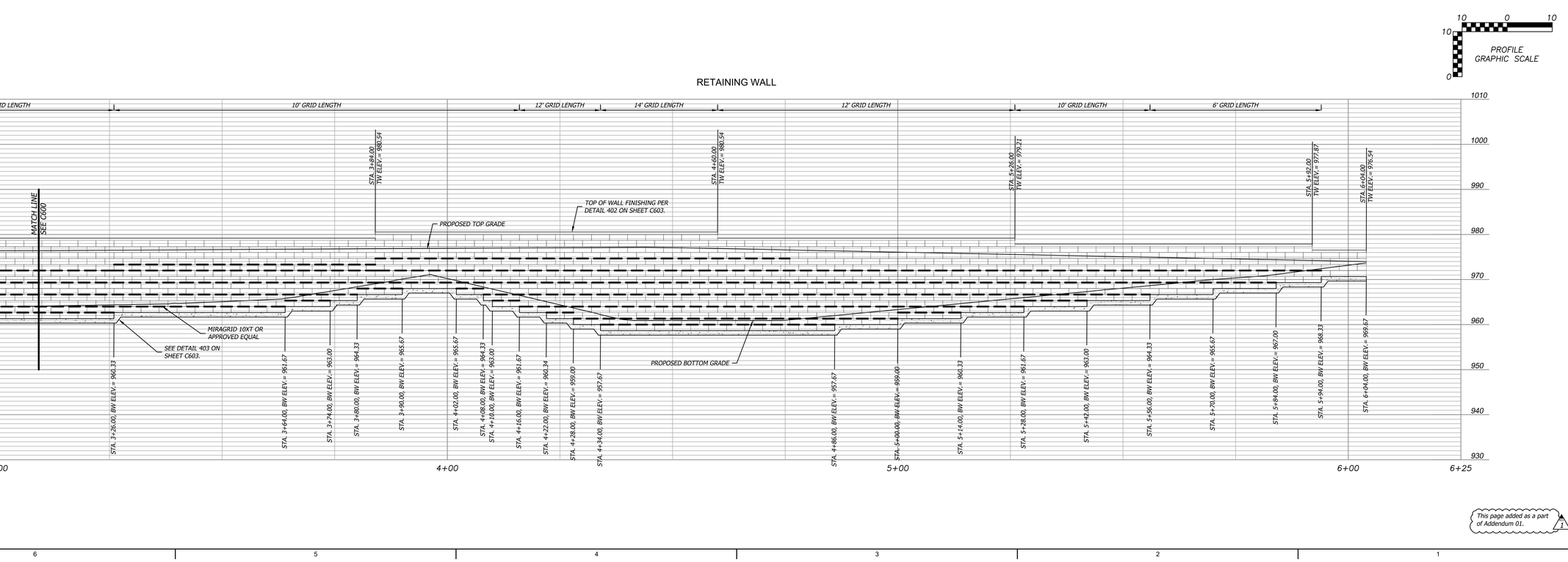

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1

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RETAINING WALL PLAN & PROFILE 2

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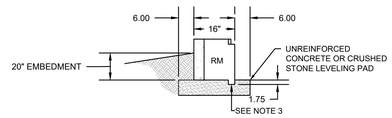
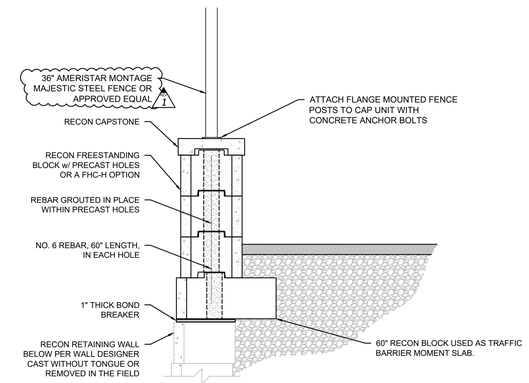
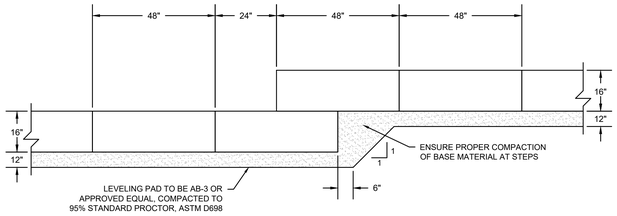


NOTES:
1. LEVELING PAD SHOULD BE AS SPECIFIED BY THE DESIGN ENGINEER IN THE PROJECT PLAN SET.
2. THE WIDTH OF THE LEVELING PAD MUST EXTEND 6" (MINIMUM) IN FRONT AND 6" (MINIMUM) IN BACK OF THE BASE BLOCK. AS A RESULT THE TYPICAL WIDTH OF LEVELING PAD WOULD BE:
   16" DEEP LIPPED BLOCK...LEVELING PAD WIDTH IS 28"
3. TRENCH A 2" WIDE, 2" DEEP CHANNEL APPROXIMATELY 6" FROM THE BACK OF THE LEVELING PAD.
4. SET THE BASE BLOCK. THE LIP WILL BE SET INTO THE 2" WIDE CHANNEL. CHECK FOR LEVEL FROM FRONT TO BACK.
5. EMBEDMENT SHOULD BE 20" MINIMUM.
6. COMPACTION TO THE SPECIFIED EMBEDMENT DEPTH SHALL BE DONE IN FRONT OF THE BASE BLOCK **BEFORE** COMPACTION IS DONE BEHIND THE BASE BLOCK. THIS REDUCES THE CHANCE THAT COMPACTION BEHIND THE BASE BLOCK WILL ROLL THE BASE BLOCK FORWARD.
7. SEE BLOCK SPECIFICATION & INSTALLATION INSTRUCTIONS FOR MORE DETAILS.

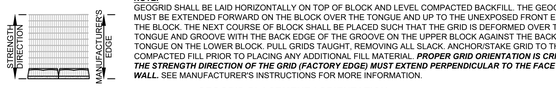
401 Not to Scale — *Block Embedment*



402 Not to Scale — *Freestanding Block Wall/Traffic Barrier*

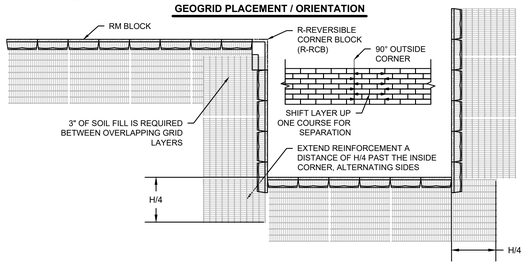


403 Not to Scale — *Leveling Pad and Stepping Base*

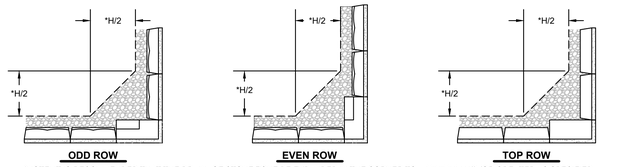


NOTE:
GEOGRID SHALL BE LAID HORIZONTALLY ON TOP OF BLOCK AND LEVEL COMPACTED BACKFILL. THE GEOGRID MUST BE EXTENDED FORWARD ON THE BLOCK OVER THE TONGUE AND UP TO THE UNEXPOSED FRONT EDGE OF THE BLOCK. THE NEXT COURSE OF BLOCK SHALL BE PLACED SUCH THAT THE GRID IS DEFORMED OVER THE TONGUE AND GROOVE WITH THE BACK EDGE OF THE GROOVE ON THE UPPER BLOCK AGAINST THE BACK OF THE TONGUE ON THE LOWER BLOCK. PULL GRIDS TAUGHT, REMOVING ALL SLACK. ANCHOR/STAKE GRID TO THE COMPACTED FILL PRIOR TO PLACING ANY ADDITIONAL FILL MATERIAL. ***PROPER GRID ORIENTATION IS CRITICAL. THE STRENGTH DIRECTION OF THE GRID (FACTORY EDGE) MUST EXTEND PERPENDICULAR TO THE FACE OF THE WALL.*** SEE MANUFACTURER'S INSTRUCTIONS FOR MORE INFORMATION.

GEOGRID PLACEMENT / ORIENTATION



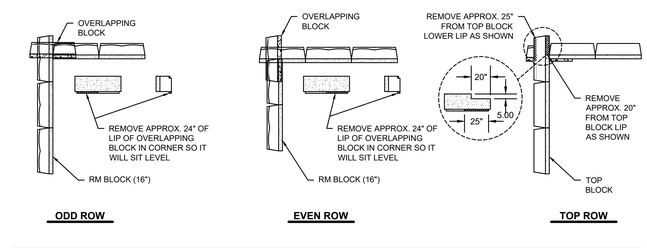
404 Not to Scale — *Geogrid Installation at Corners*



*NOTE: IT IS RECOMMENDED THAT THE DRAINAGE STONE ZONE BE EXPANDED IN THE CORNER TO A MINIMUM H/2 (OR GREATER AS SPECIFIED PER THE ENGINEER), WHERE 'H' IS EQUAL TO THE TOTAL WALL HEIGHT AT THE CORNER.

NOTE: WHEN BUILDING A WALL WITH AN OUTSIDE 90° CORNER, IT IS RECOMMENDED THAT CONSTRUCTION START AT THE CORNER AND EXTEND OUTWARD FROM THIS POINT IN BOTH DIRECTIONS. THIS ALLOWS FOR PLACEMENT OF THE CORNER BLOCKS SO THAT 1" OF SET BACK CAN BE MAINTAINED IN THE WALL IN BOTH DIRECTIONS. NO BLOCK CUTTING IS REQUIRED TO MAINTAIN THE 1" OF SET BACK PER ROW OF BLOCK ASSUMING THAT BOTH ENDS OF THE WALL RUNNING AWAY FROM THE 90° CORNER RUN OUT INTO GRADE. IN LIEU OF MAINTAINING THE 1" SET BACK AFTER TURNING A 90° CORNER, YOU CAN BUILD ONE SIDE OF THE CORNER (SAY 'SIDE B') VERTICALLY WITHOUT THE 1" SET BACK PER ROW OF BLOCK. THIS WILL REQUIRE YOU TO CUT 1" OFF THE BACK OF THE TONGUE OF THE FIRST REGULAR BLOCK ADJACENT TO THE CORNER BLOCK IN EACH ROW ON SIDE B OF THE WALL. YOU CAN RE-ESTABLISH THE 1" SET BACK ON SIDE B GRADUALLY AS YOU MOVE OUT FROM THE CORNER. HOWEVER, THE ELIMINATION OF THE SET BACK MUST BE TAKEN INTO ACCOUNT IN THE DESIGN OF THE WALL BY THE REGISTERED PROFESSIONAL ENGINEER. ***IN EITHER CASE, DURING INSTALLATION, IT IS RECOMMENDED THAT PL PREMIUM ADHESIVE BE APPLIED TO THE TOPS OF ALL REGULAR CORNER BLOCKS PRIOR TO INSTALLING THE NEXT ROW OF BLOCK.*** IF ONE END OF THE WALL MUST END VERTICALLY BECAUSE IT ABUTS TO AN EXISTING VERTICAL STRUCTURE OR THE WALL HAS TWO OUTSIDE 90° CORNERS, THEN BLOCKS WILL NEED TO BE CUT TO MAINTAIN THE 1" SET BACK - IN THIS CASE REFER TO DRAWING # 311.

405 Not to Scale — *Outside Corner Block Installation*



NOTE: IT IS RECOMMENDED WHEN BUILDING AN INSIDE 90° CORNER THAT ONCE THE BASE ROW OF THE INSIDE CORNER IS SET, THE CONTRACTOR SHOULD START EACH SUBSEQUENT ROW AT THE CORNER AND LAY THE BLOCK IN BOTH DIRECTIONS OUT FROM THE CORNER. THE STANDARD RECON BLOCK WILL SET BACK 1" FOR EACH ROW PLACED ABOVE THE BASE COURSE. THIS WILL HAVE TWO DIFFERENT EFFECTS ON THE FINISHED WALL. FIRST, AT THE POINT OF THE 90° CORNER, THE WALL WILL NOT BE VERTICAL, BUT RATHER THE ACTUAL LINE AT THE CORNER WILL BE LAYING BACK AT THE SAME 3.6° OF BATTER AS THE FACE OF EACH OF THE SIDES OF THE WALL THAT COME TOGETHER AT THE CORNER. SECOND, AS EACH NEW ROW OF BLOCK IS PLACED AT THE CORNER, THE BLOCK WILL BE SET BACK NOT ONLY 1" ALONG THE VERTICAL AXIS BUT ALSO WILL BE PLACED 1" INSIDE TOWARD THE CORNER ALONG THE HORIZONTAL AXIS. IF YOU WERE TO FOLLOW THE SECOND ROW OF BLOCK OUT FROM THE CORNER, YOU WOULD SEE THAT THE END OF THIS ROW OF BLOCK IN THE WALL IS 1" SHORTER IN THE HORIZONTAL / LINEAL DIRECTION THAN THE BASE ROW. THE THIRD ROW OF BLOCK WILL BE 2" SHORTER IN THE HORIZONTAL / LINEAL DIRECTION THAN THE BASE ROW, AND SO ON. FOR TALLER WALLS, YOU MAY NOTICE THAT THE RUNNING BOND IS SLIDING OFF CENTER BY 1" FOR EVERY OTHER COURSE. THIS IS AN AESTHETIC ISSUE AND DOES NOT EFFECT THE STRUCTURAL PERFORMANCE OF THE WALL.

406 Not to Scale — *Inside Corner Block Installation*

WALL AREA FOUNDATION REQUIREMENTS:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PROJECT.

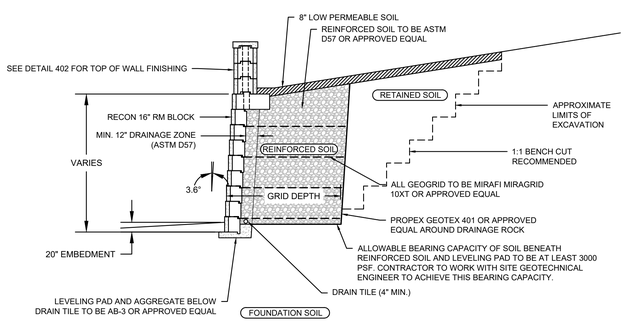
2. WALL AREA FOUNDATION AND SUBGRADE PAD SHALL MEET OR EXCEED THE REQUIREMENTS OF THE SPECIFICATION EXCEPT AS HEREIN NOTED ON THESE CONSTRUCTION DRAWINGS.

3. REMOVE SURFACE VEGETATION, TOPSOIL, ROOT SYSTEMS, ROCK FRAGMENTS LARGER THAN 6", ORGANIC MATERIAL, EXISTING UNSUITABLE FILL, AND SOFT OF OTHERWISE UNSUITABLE MATERIAL FROM THE WALL AREA.

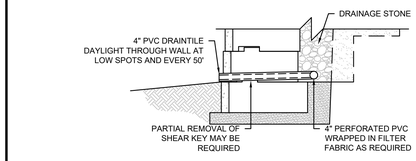
4. AREAS ENCOUNTERED OF SOFT SUBGRADE SHOULD BE REMEDIATED AS DIRECTED BY GEOTECHNICAL ENGINEER.

5. AREAS EXPOSED BY EXCAVATION OR STRIPPING AND ON WHICH THE WALL SUBGRADE PREPARATIONS ARE TO BE PERFORMED SHALL BE SCARIFIED TO A MINIMUM OF 12 INCHES AND COMPACTED TO MINIMUM OF 95 PERCENT OF MAXIMUM DENSITY, IN ACCORDANCE WITH ASTM D 698, AT MOISTURE OF 0 TO 4 PERCENT BELOW OPTIMUM MOISTURE CONTENT. THE CONTRACTOR SHALL COORDINATE WITH THE TESTING LABORATORY TO CONDUCT DENSITY TESTS DURING FILL PLACEMENT AND/OR SOIL MODIFICATION AND MAKE ANY OTHER OBSERVATIONS NECESSARY TO DETERMINE THAT THE REQUIREMENT OF THE PLANS AND SPECIFICATIONS ARE BEING ACHIEVED. EXCAVATE AND RECOMPACT AREAS OF FAILURE OR UNSUITABLE SOILS AS SPECIFIED HEREIN. CONTINUAL FAILURE AREAS SHALL BE STABILIZED AND REPORTED TO THE ENGINEER.

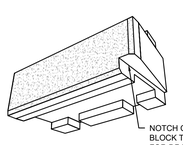
6. FILL MATERIALS SHALL BE FREE OF ALL ORGANIC AND OTHER DELETERIOUS MATERIALS. ONLY FILL SOILS HAVING A LIQUID LIMIT LESS THAN 50 AND PLASTICITY INDEX LESS THAN 20 SHALL BE USED IN THE WALL FOUNDATION AREA. PLACE FILL MATERIALS IN THE WALL FOUNDATION AREA IN LIFTS OF LAYERS NOT TO EXCEED 6-INCHES LOOSE MEASURED AND COMPACTED TO A MINIMUM DENSITY OF 95 PERCENT OF MAXIMUM DENSITY, IN ACCORDANCE WITH ASTM D 698 AT OPTIMUM MOISTURE CONTENT ±3%.



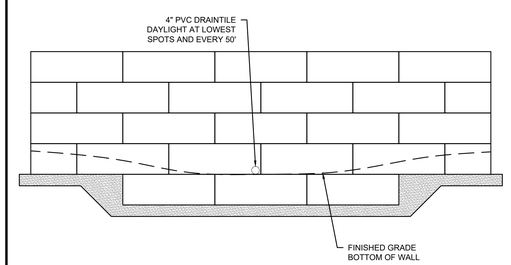
407 Not to Scale — *Wall Section*



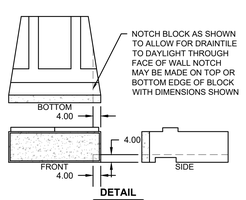
PARTIAL CROSS SECTION



ISOMETRIC VIEW

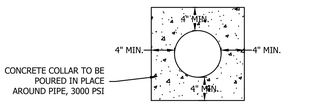


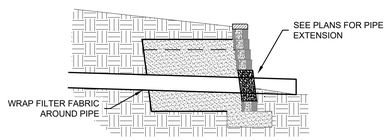
PARTIAL WALL PROFILE

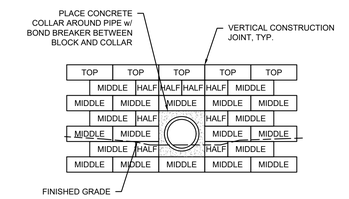


DETAIL

408 Not to Scale — *Weep Hole Location*







PARTIAL WALL PROFILE

This page added as a part of Addendum 01. 1

409 Not to Scale — *Concrete Collar*

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Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

Revision

Number	Date	Description
01	01/20/2023	Addendum 01

RELEASED FOR CONSTRUCTION
Per Notice on Plan Review
Development Services Department
Lee's Summit, Missouri
03/28/2023

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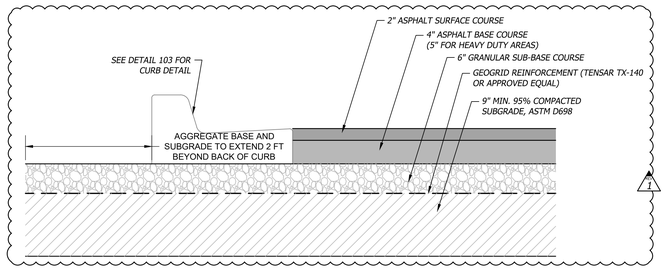
WALL DETAILS

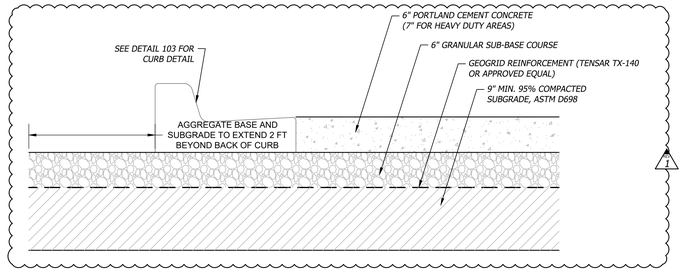
Feb 06, 2023 - 9:36am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\TOP\033570-SHTS-WALL-DTLS.dwg Layout: Wall Details 1

NOTES:
1. SHOP DRAWINGS FOR ASPHALT SHALL BE SUBMITTED PRIOR TO BATCHING. DENSITY TESTING FOR ASPHALT SHALL BE AT A MINIMUM OF 3 PER LIFT PER DAY DURING THE ASPHALT LAYING OPERATION. FINAL THICKNESS OF ASPHALT SHALL BE MEASURED AT 3 RANDOM LOCATIONS WITHIN THE SITE BY CORING THE PAVEMENT. THE AVERAGE OF THESE 3 CORES MUST BE GREATER THAN THE MINIMUM THICKNESS SPECIFIED IN THE PLANS.
2. ASHPALT PAVEMENT CONSTRUCTION SHALL ONLY COMMENCE WHEN AMBIENT TEMPERATURE IS 34 DEGREES FAHRENHEIT AND RISING.
3. THICKNESS SHOWN IS MINIMUM.



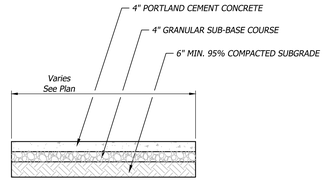
100 Not to Scale — Asphalt Pavement

NOTES:
1. ALL EXTERIOR CONCRETE SHALL HAVE A BROOM FINISH.
2. 4000 PSI AT 28 DAYS, 4-INCH MAXIMUM SLUMP, AND 5%-7% AIR ENTRAINED MIX.
3. CONCRETE PAVEMENT CONSTRUCTION SHALL ONLY COMMENCE WHEN AMBIENT TEMPERATURE IS 34 DEGREES FAHRENHEIT AND RISING. COLD WEATHER PROCEDURES MAY BE UTILIZED FOR CONCRETE INSTALLATIONS WHEN TEMPERATURES ARE NOT SUITABLE FOR CONVENTIONAL PLACEMENT.
4. CONTRACTOR TO SUBMIT CONCRETE MIX DESIGN TO ENGINEER PRIOR TO PLACEMENT.
5. REFER TO JOINTING DETAILS FOR DETAILS OF CONCRETE JOINTS.

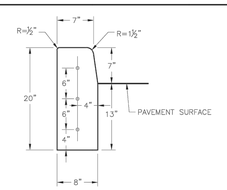


101 Not to Scale — Concrete Pavement

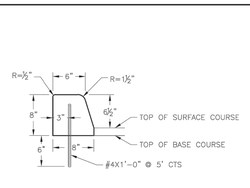
NOTES:
1. CONTROL JOINT SPACING SHALL MATCH WIDTH OF SIDEWALK.
2. ISOLATION JOINTS SHALL BE PLACED @ 250' CENTERS OR WHERE WALKS ABUT CURBS, BUILDINGS, ETC....
3. ALL EXTERIOR CONCRETE SHALL HAVE A BROOM FINISH.



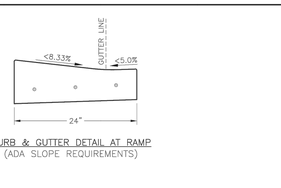
102 Not to Scale — Concrete Sidewalk



STRAIGHT CURB (TYPE C-1)

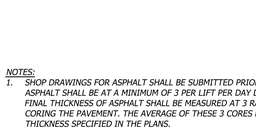


DOWELLED CURB (TYPE DC)

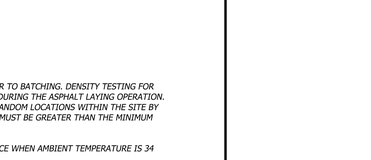


CURB & GUTTER DETAIL AT RAMP (ADA SLOPE REQUIREMENTS)

STRAIGHT BACK CURB & GUTTER (TYPE CG-1)

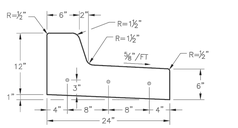


ROLL BACK CURB & GUTTER (TYPE CG-2)

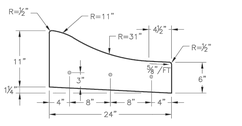


CURB REPLACEMENT DETAIL

GENERAL NOTES
1. ¾" ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
8. ALL DOWELS & TIE BARS SHALL BE EPOXY COATED.



STRAIGHT BACK DRY CURB & GUTTER (TYPE CG-1 DRY)

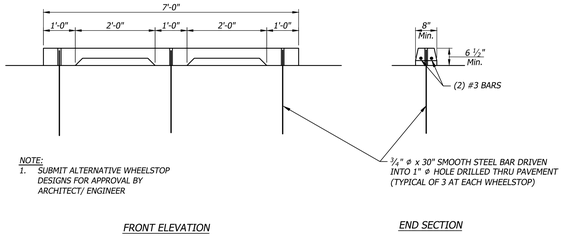


ROLL BACK DRY CURB & GUTTER (TYPE CG-2 DRY)

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 1220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: CURB & GUTTER DETAIL
Drawn By: MJF
Checked By: DL
Date: 05/2021
Proj. #:
GEN-4

103 Not to Scale — Concrete Curb & Gutter (CG-1)



NOTE:
1. SUBMIT ALTERNATIVE WHEELSTOP DESIGNS FOR APPROVAL BY ARCHITECT/ ENGINEER

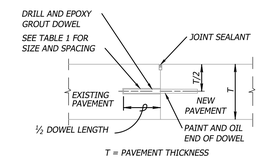
FRONT ELEVATION

END SECTION

104 Not to Scale — Concrete Wheelstop

JOINTING AND DOWEL NOTES

1. WIDTH TO LENGTH RATIO OF SLABS NOT TO EXCEED 1.25 TIMES.
2. LENGTH OF ANY PANEL TO NOT EXCEED 12.5 FEET IN PAVEMENT AREAS AND 10 FEET IN SIDEWALK AREAS.
3. SLABS WHICH DO NOT FOLLOW THE WIDTH TO LENGTH RATIO ABOVE OR ARE NOT RECTANGULAR SHALL BE REINFORCED WITH STEEL WELDED WIRE FABRIC OF THE SIZES SHOWN IN TABLE 2. OTHER WWF SIZES MAY BE USED PROVIDED THE STEEL AREA (SQ INCHES/FOOT) IN THE LONGITUDINAL AND TRANSVERSE DIRECTIONS IS EQUAL TO OR EXCEEDS THAT SHOWN IN TABLE 2.
4. EPOXY COATED DOWEL BARS SHALL BE DRILLED BY USE OF A MECHANICAL RIG. DRILLING BY HAND OR PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.
5. DRILLING, CLEANING, AND GROUTING SHALL BE PERFORMED PER THE EPOXY MANUFACTURER'S REQUIREMENTS FOR THIS SPECIFIC APPLICATION.
6. ASSURE SAW JOINTS ARE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE JOINT SEALANT.
7. FOR EPOXY GROUT, THE HOLE DIAMETER SHALL BE NOT MORE THAN ¼" LARGER THAN DOWEL DIAMETER OR AS DIRECTED BY THE EPOXY MANUFACTURER.
8. INSTALL CLOSED CELL BACKER RODS AFTER JOINTS HAVE BEEN CLEANED AND DRIED IN ACCORDANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.
9. INSTALL BACKER ROD AT CONSISTENT AND UNIFORM DEPTH.
10. JOINT SEALANT APPLICATION SHALL BE IN STRICT COMPLIANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.
11. ALL JOINTS ALONG THE ACCESSIBLE ROUTE SHALL NOT EXCEED ½" IN WIDTH.
12. CONTRACTOR TO INSTALL BULKHEAD AND DOWEL EXPANSION JOINTS AT DAY'S END POUR.



T = PAVEMENT THICKNESS

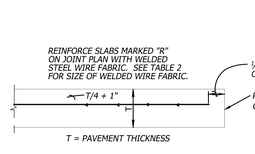
DOWELED JOINT BETWEEN NEW & EXISTING PAVEMENT (CONSTRUCTION JOINT)

TABLE 1

PAVEMENT THICKNESS	MAXIMUM DOWEL SPACING	MINIMUM DOWEL LENGTH	MINIMUM DOWEL DIAMETER
LESS THAN 8"	12"	16"	3/4"
8" TO 11"	12"	16"	1"
12" TO 15"	15"	20"	1-1/4"

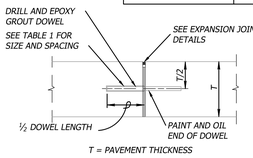
TABLE 2

PAVEMENT THICKNESS	MINIMUM REQUIRED AREA OF STEEL (SQ. IN. / FT)	WELDED WIRE FABRIC
6"	0.036	6 x 6 - W2.0 x W2.0
7"	0.042	6 x 6 - W2.9 x W2.9



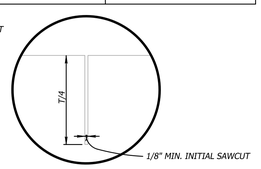
T = PAVEMENT THICKNESS

SLAB REINFORCING DETAIL



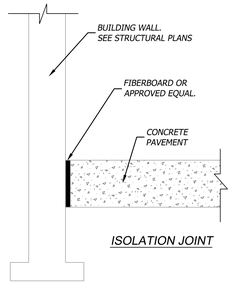
T = PAVEMENT THICKNESS

DOWELED EXPANSION JOINT

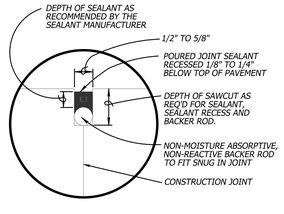


T = PAVEMENT THICKNESS

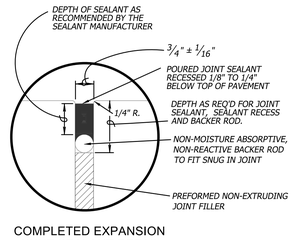
CONTRACTION JOINT



ISOLATION JOINT



COMPLETED CONSTRUCTION JOINT SEALANT DETAIL



COMPLETED EXPANSION JOINT SEALANT DETAIL

105 Not to Scale — Concrete Pavement Joints

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Development Services Department
Lee's Summit, Missouri
03/28/2023

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CIVIL DETAILS 1

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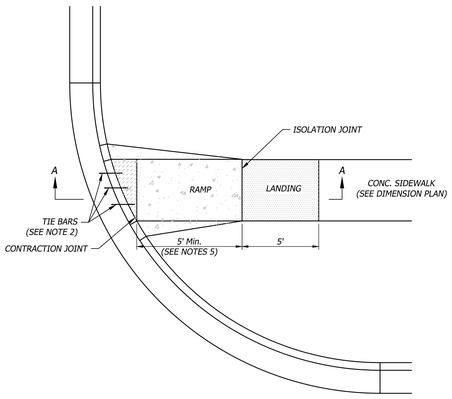
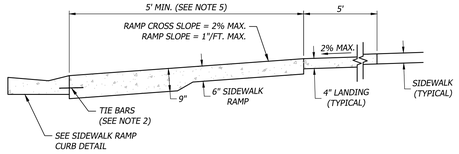
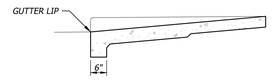


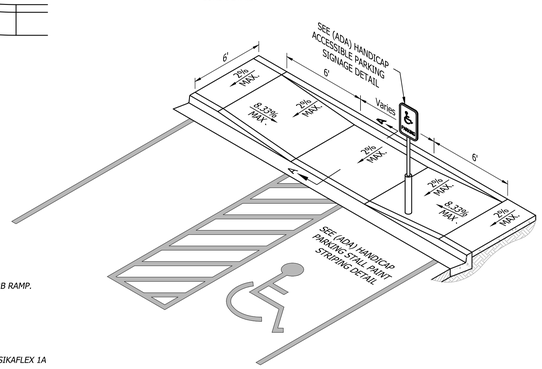
NOTES:
1. SIDEWALK RAMP LOCATION DETERMINED FROM THE INTERSECTION OF THE EXTENSION OF BACK OF SIDEWALK AND BACK OF CURB & GUTTER.
2. TIE BARS #4 EPOXY COATED @ 12"OC.
3. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
4. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 250' CENTERS MAX.
5. SIDEWALK RAMP SHALL BE LENGTHENED TO PROVIDE ADA COMPLIANCE SLOPE BUT NEED NOT EXCEED 15'.
6. ADA RAMP SLOPE MAX. = 1"/FT. ADA CROSS SLOPE MAX. = 2%.
7. SEE DETECTABLE WARNING DETAIL FOR THE INSTALLATION REQUIREMENTS.



SECTION A-A

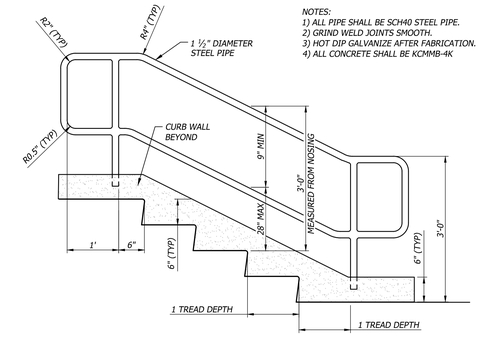


SECTION A-A
MONOLITHIC CURB & SIDEWALK



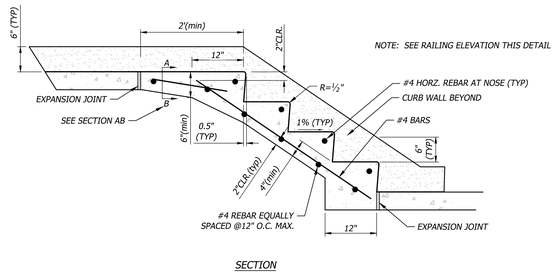
GENERAL NOTES:
1. PLACE TRUNCATED DOME DETECTABLE WARNING PANELS @ BASE OF CURB RAMP. INSTALL ACROSS FULL WIDTH OF RAMP 24"MIN. DEPTH.
2. TOOLED JOINTS ARE REQUIRED AT ALL SIDEWALK RAMP SLOPE BREAKS.
3. THICKEN CONCRETE UNDER DETECTABLE WARNING PANEL.
4. IN FREEZE THAW ZONES, LEAVE $\frac{3}{16}$" GAP IN BETWEEN PANELS & SEAL W/ SIKAFLEX 1A SEALANT OR APPROVED EQUAL.

106 Not to Scale — Sidewalk Ramp



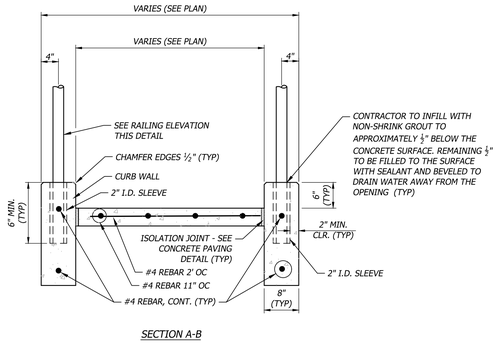
NOTES:
1) ALL PIPE SHALL BE SCH40 STEEL PIPE.
2) GRIND WELD JOINTS SMOOTH.
3) HOT DIP GALVANIZE AFTER FABRICATION.
4) ALL CONCRETE SHALL BE KCMMB-4K

HANDRAIL ELEVATIONS



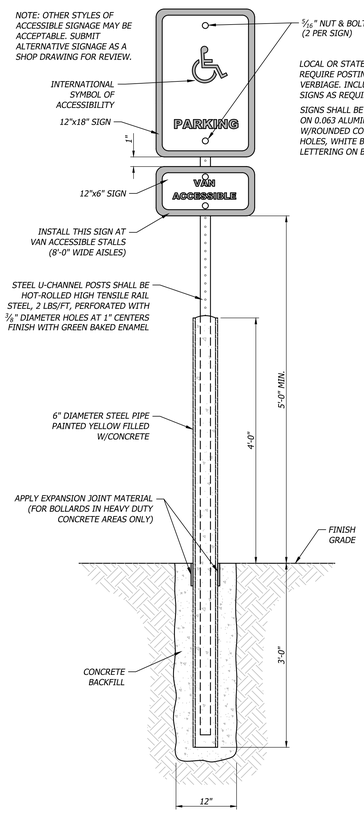
NOTE: SEE RAILING ELEVATION THIS DETAIL

SECTION



SECTION A-B

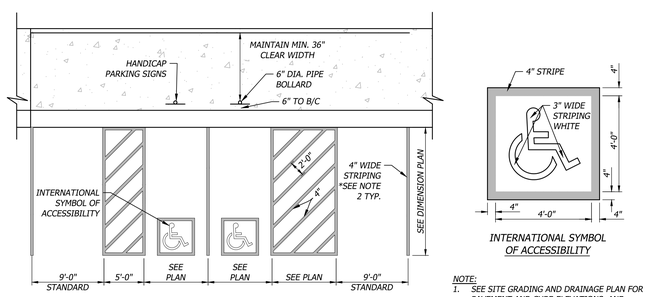
107 Not to Scale — Concrete Stair & Handrail



LOCAL OR STATE REGULATIONS MAY REQUIRE POSTING OF FINES OR OTHER VERBIAGE. INCLUDE VERBIAGE ON SIGNS AS REQUIRED.

SIGNS SHALL BE BAKED ENAMEL ON 0.063 ALUMINUM SHEETING W/ROUNDED CORNERS, TWO MOUNTING HOLES, WHITE BORDER, SYMBOL & LETTERING ON BLUE BACKGROUND

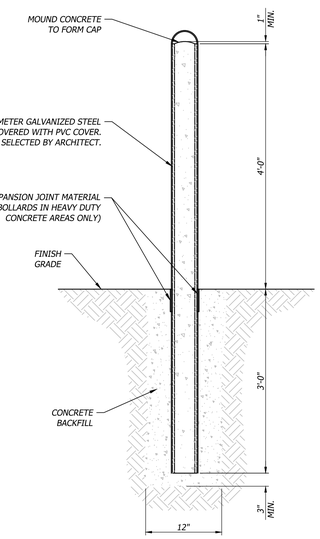
108 Not to Scale — ADA Handicap Parking Signage



INTERNATIONAL SYMBOL OF ACCESSIBILITY

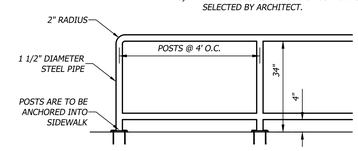
NOTE:
1. SEE SITE GRADING AND DRAINAGE PLAN FOR PAVEMENT AND CURB ELEVATIONS, AND ASSOCIATED ALLOWABLE SLOPES FOR ACCESSIBLE PARKING

109 Not to Scale — ADA Handicap Parking Striping



110 Not to Scale — Steel/Concrete Bollard

HANDRAIL NOTES:
1) ALL PIPE SHALL BE SCH40 STEEL PIPE.
2) GRIND WELD JOINTS SMOOTH.
3) HANDRAIL IS TO BE POWDER COATED. COLOR TO BE SELECTED BY ARCHITECT.



111 Not to Scale — Handrail

NOTES:
1. SIGN TO BE 12x18 ALUMINUM SIGN.
2. BOTTOM OF SIGN TO BE 60" ABOVE FINISHED GRADE.

1

112 Not to Scale — No Parking Fire Lane Sign

STATE OF MISSOURI
KURT M. YODER
NUMBER PE-2021020064
PROFESSIONAL ARCHITECT
02/06/2023

Kurt M. Yoder, Civil Engineer
License - Missouri #2021020064

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Saint Luke's
EAST HOSPITAL
ASC EXPANSION & RENOVATION
100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

Revision

Number	Date	Description
01	01/20/2023	Addendum 01

RELEASED FOR CONSTRUCTION
As Noted on Plan Review
Development Services Department
Lee's Summit, Missouri
02/20/2023

C701

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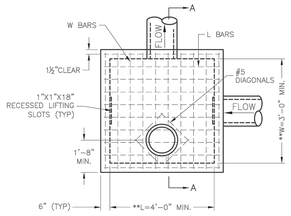
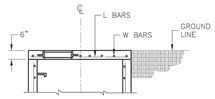
CIVIL DETAILS 2

Feb 06, 2023 - 9:38am Plotted By: kurt.yoder V:\03570-st. lukes east\04-DWG\Eng\Sheet\PDP\03570-Sht15-DTLS.dwg Layout: Civil Details 2



PLAN

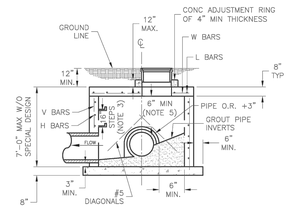


SLAB TOP ALTERNATE FOR JUNCTION BOX (SHALLOW)

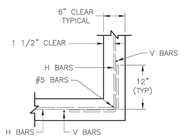
** INCREASE IN MULTIPLES OF 6" (7'-0" MAX WITHOUT SPECIAL DESIGN. (SEE PROJECT PLANS FOR DETAILS)

REINFORCING

BARS	BAR SIZE	SPACING (IN.)
H	4	12
V	4	12
L	5	6
W	5	6



SECTION A–A



WALL CORNER DETAIL

GENERAL NOTES:
1. LOCATE RING AND COVER ON BLANK WALL.
2. USE ¾" CHAMFER STRIP OR ½" R EDGER TOOL ON ALL EXPOSED CONCRETE CORNERS.
3. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 4' ON BLANK WALL IF POSSIBLE.
4. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE AND THE MINIMUM DISTANCE BETWEEN BOXOUTS IS 6".
5. THE MINIMUM REINFORCING SHALL BE 1 H–BAR OVER A CAST–IN–PLACE PIPE AND 2 H–BARS OVER A PRECAST BOXOUT.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON–SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. REINFORCING OF COVERS IN STREETS REQUIRE SPECIAL DESIGN.
10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: JUNCTION BOX DETAIL

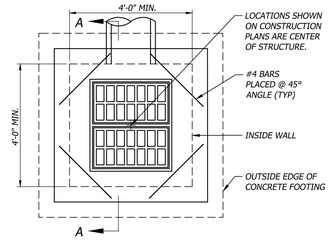
Drawn By: MJF
Checked By: DL
Date: 05/2021
Proj. #:

STM-3

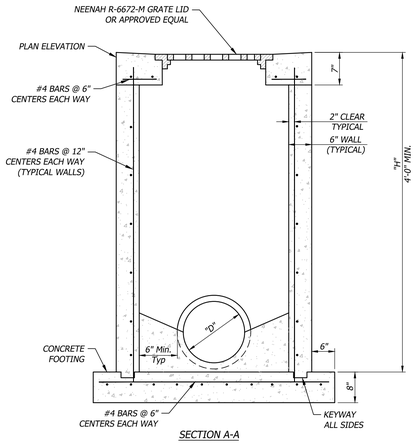
201 Not to Scale — Junction Box

NOTES

1. *ALL CONCRETE SHALL BE 4000 PSI.*
2. *THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.*
3. *FLOOR OF INLET SHALL BE SHAPED WITH NON-REINFORCED CONCRETE INVERT TO PROVIDE SMOOTH FLOW.*
4. *EXPANSION JOINTS SHALL BE EITHER HOT OR COLD POURED JOINT SEALING COMPOUND, OR PREMOLDED EXPANSION JOINT FILLER.*
5. *STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL SPACINGS NOT TO EXCEED 4'-0".*
6. *BEVEL ALL EXPOSED EDGES WITH TRIANGULAR MOLDING.*
7. *ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF ±1/8" SHALL BE PERMITTED.*
8. *ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.*
9. *ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.*
10. *ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.*
11. *DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.*
12. *THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.*
13. *RCP CONNECTIONS TO PRECAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2' OF THE STRUCTURE.*
14. *THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH ("L"+"H") AND ("W"+"H") LESS THAN OR EQUAL TO 20. FOR BOXES WITH EITHER OF THESE CALCULATIONS GREATER THAN 20, A SPECIAL DESIGN IS REQUIRED.*

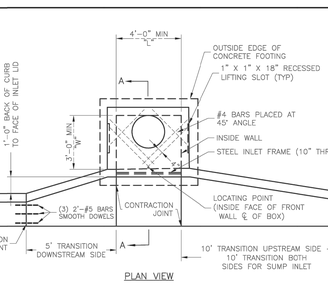


PLAN VIEW

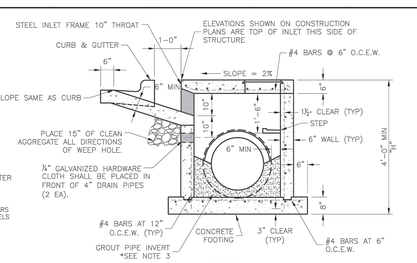


SECTION A-A

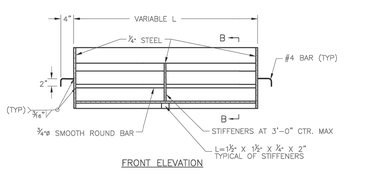
202 Not to Scale — Area Inlet



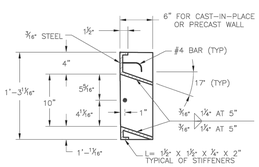
PLAN VIEW



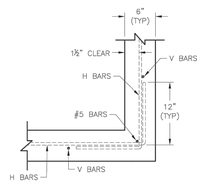
SECTION A–A



FRONT ELEVATION



SECTION B–B



WALL CORNER DETAIL

PLAN VIEW

STEEL FRAME NOTES:
1. ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
3. THE ENTIRE FRAME SHALL BE PAINTED A SINGLE COAT OF CHEM–PRIME #37H–78 PRIMER (GRAY) OR EQUAL.

GENERAL NOTES:
1. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
2. FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
4. LOCATE MH RING AND COVER ON BLANK WALL IF POSSIBLE.
5. STEPS SHALL BE SPACED AT 1'–4" O.C. VERTICALLY ON BLANK WALL IF POSSIBLE.
6. BEVEL ALL EXPOSED EDGES WITH ¾"CHAMFER OR ½" TOOLED EDGE.
7. ON–GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON–SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. LIFTING RINGS SHALL BE REMOVED AND SEALED WITH NON–SHRINKABLE GROUT
10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

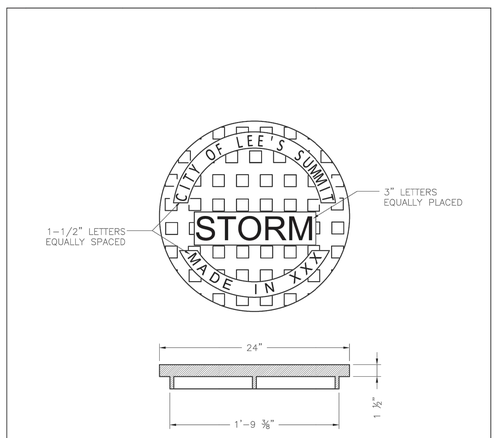
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: CURB INLET DETAIL

Drawn By: MJF
Checked By: DL
Date: 05/2021
Proj. #:

STM-1

203 Not to Scale — Curb Inlet

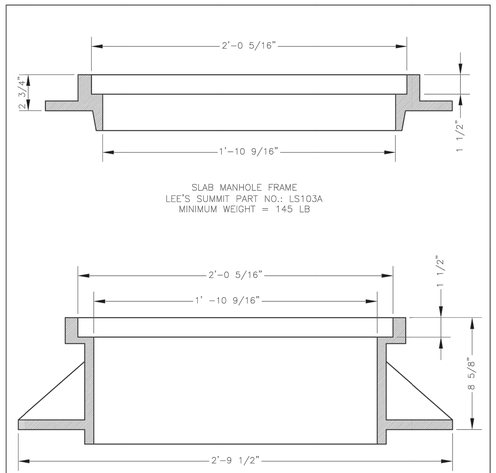


STANDARD 24" MANHOLE COVER
MINIMUM WEIGHT = 160 LB
NOTE: PICK HOLES NOT SHOWN

*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
STORM MANHOLE COVER DETAIL

Date: 05/2021
Drawn By: MJF
Checked By: DL
STM-6



SLAB MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS103A
MINIMUM WEIGHT = 145 LB

STANDARD 24" MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS101A
MINIMUM WEIGHT = 250 LB

*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
STORM MANHOLE FRAME DETAIL

Date: 05/2021
Drawn By: MJF
Checked By: DL
DWG-7

204 Not to Scale — Storm Manhole Detail

STATE OF MISSOURI
KURT M. YODER
NUMBER PE-2021020064
PROFESSIONAL ENGINEER
02/06/2023

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License - Missouri #2021020064

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Saint Luke's
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ASC EXPANSION & RENOVATION
100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

Revision

Number	Date	Description

RELEASED FOR CONSTRUCTION
As Noted on Plan Review
Development Services Department
Lee's Summit, Missouri
03/30/2023

C702

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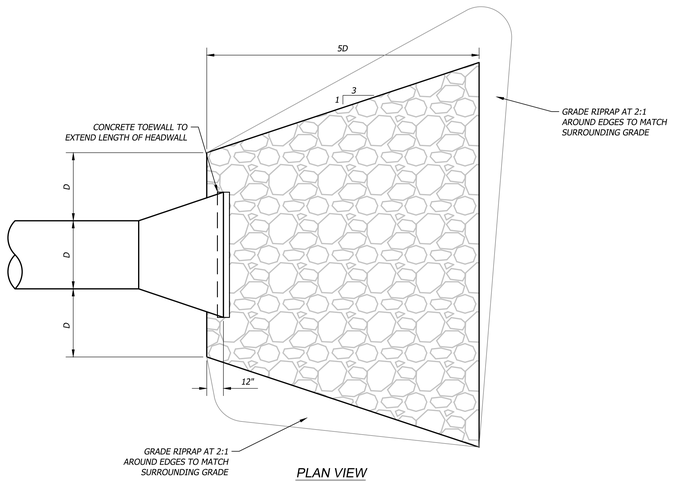
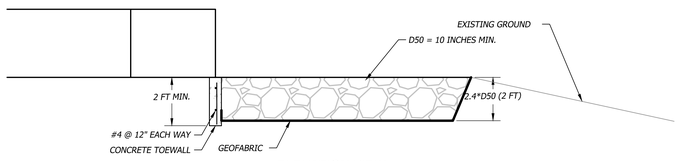
CIVIL DETAILS 3

Feb 06, 2023 – 9:39am Plotted By: kurtyoder V:\033570–st. lukes east\04–DWG\Eng\Sheet\FDP\033570–SHTS–DTLS.dwg Layout: Civil Details 3

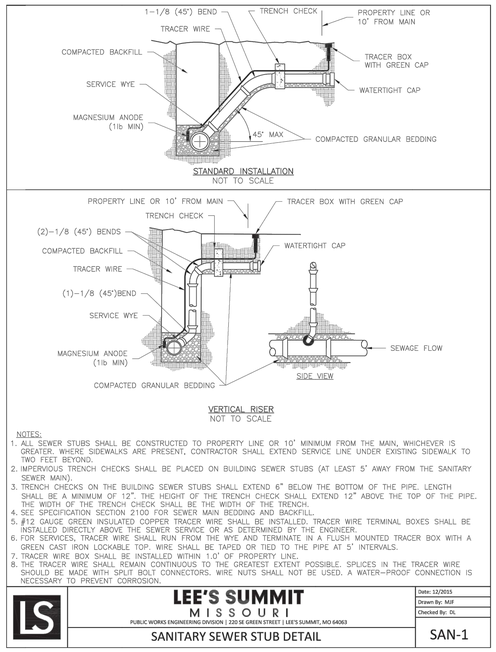


PLAN VIEW



ELEVATION VIEW

205 — Not to Scale — Rip Rap Protection



STANDARD INSTALLATION
NOT TO SCALE

VERTICAL RISER
NOT TO SCALE

NOTES:

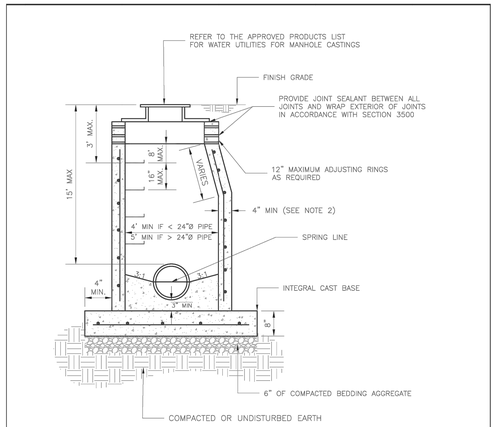
1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHICHEVER IS GREATER. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
3. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
4. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
5. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
6. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
7. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
8. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SANITARY SEWER STUB DETAIL

Date: 12/2015 | Drawn By: MJF | Checked By: DL | SAN-1

301 — Not to Scale — Sanitary Riser



NOTES:

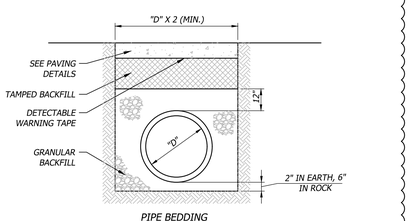
1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
2. A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (D_M) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THEN 15'.
3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING.
4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION INTO THE FLOW LINE.
6. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS.
7. REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD SANITARY PRECAST MANHOLE

Date: 12/2015 | Drawn By: SC | Checked By: DL | SAN-2

302 — Not to Scale — Sanitary Manhole



PIPE BEDDING

NOTES:

1. GRANULAR FILL SHALL BE 1/2" CLEAN ROCK OR SAND/GRAVEL BEDDING, PLACED IN 6" LIFTS AND COMPACTED BY SLICING WITH A SHOVEL.
2. TAMPED FILL SHALL BE FINELY DIVIDED, JOB EXCAVATED MATERIAL FREE OF DEBRIS, ORGANIC MATERIAL, AND STONES, COMPACTED TO 95% DENSITY, STANDARD PROCTOR.
3. ALL PIPE COVERED PRIOR TO INSPECTION SHALL BE UNCOVERED AT THE CONTRACTOR'S EXPENSE.

303 — Not to Scale — Pipe Bedding

KURT M. YODER — NUMBER PE-2021020064 — STATE OF MISSOURI — PROFESSIONAL ENGINEER
02/06/2023

Kurt M. Yoder, Civil Engineer
License - Missouri #2021020064

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Saint Luke's
EAST HOSPITAL

ASC EXPANSION & RENOVATION
100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

Revision

Number	Date	Description
01	01/20/2023	Addendum 01

RELEASED FOR CONSTRUCTION
As Noted on Plan Review
Development Services Department
Lee's Summit, Missouri
03/28/2023

C703

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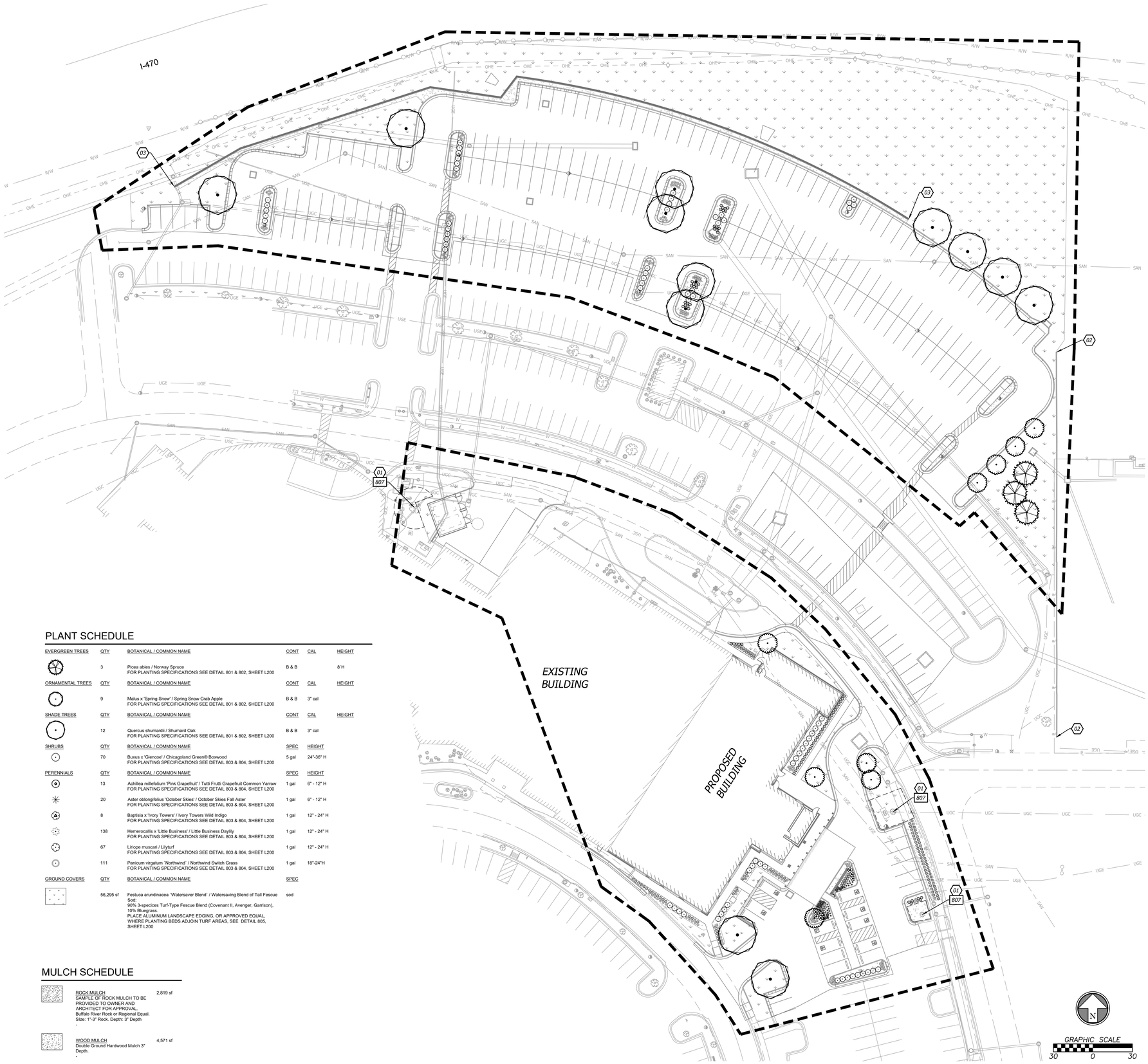
CIVIL DETAILS 4

Feb 06, 2023 - 9:40am Plotted By: kurtyoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PDP\033570-SHTS-DTLS.dwg Layout: Civil Details 4



PLANT SCHEDULE

EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL	HEIGHT
	3	Picea abies / Norway Spruce FOR PLANTING SPECIFICATIONS SEE DETAIL 801 & 802, SHEET L200	B & B		8`H
ORNAMENTAL TREES	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**CAL**	**HEIGHT**
	9	Malus x 'Spring Snow' / Spring Snow Crab Apple FOR PLANTING SPECIFICATIONS SEE DETAIL 801 & 802, SHEET L200	B & B	3" cal	
SHADE TREES	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**CAL**	**HEIGHT**
	12	Quercus shumardii / Shumard Oak FOR PLANTING SPECIFICATIONS SEE DETAIL 801 & 802, SHEET L200	B & B	3" cal	
SHRUBS	**QTY**	**BOTANICAL / COMMON NAME**	**SPEC**	**HEIGHT**	
	70	Buxus x 'Glencoe' / Chicagoland Green® Boxwood FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L200	5 gal	24"-36" H	
PERENNIALS	**QTY**	**BOTANICAL / COMMON NAME**	**SPEC**	**HEIGHT**	
	13	Achillea millefolium 'Pink Grapefruit' / Tutti Frutti Grapefruit Common Yarrow FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L200	1 gal	6" - 12" H	
	20	Aster oblongifolius 'October Skies' / October Skies Fall Aster FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L200	1 gal	6" - 12" H	
	8	Baptisia x 'Ivory Towers' / Ivory Towers Wild Indigo FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L200	1 gal	12" - 24" H	
	138	Hemerocallis x 'Little Business' / Little Business Daylily FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L200	1 gal	12" - 24" H	
	67	Liriope muscari / Lilyturf FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L200	1 gal	12" - 24" H	
	111	Panicum virgatum 'Northwind' / Northwind Switch Grass FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L200	1 gal	18"-24"H	
GROUND COVERS	**QTY**	**BOTANICAL / COMMON NAME**	**SPEC**		
	56,295 sf	Festuca arundinacea `Watersaver Blend` / Watersaving Blend of Tall Fescue Sod: 90% 3-species Turf-Type Fescue Blend (Covenant II, Avenger, Garrison), 10% Bluegrass. PLACE ALUMINUM LANDSCAPE EDGING, OR APPROVED EQUAL, WHERE PLANTING BEDS ADJOIN TURF AREAS, SEE DETAIL 805, SHEET L200	sod		

MULCH SCHEDULE

	ROCK MULCH SAMPLE OF ROCK MULCH TO BE PROVIDED TO OWNER AND ARCHITECT FOR APPROVAL. Buffalo River Rock or Regional Equal. SIze: 1"-3" Rock. Depth: 3" Depth -	2,819 sf
	WOOD MULCH Double Ground Hardwood Mulch 3" Depth. -	4,571 sf

GENERAL LANDSCAPE NOTES

1. The Contractor shall verify and coordinate all final grades with the Landscape Architect and or design team prior to completion.
2. Location and placement of all plant material shall be coordinated with the Landscape Architect prior to installation.
3. Location of all utilities are approximate, the Contractor shall field verify locations prior to commencement of construction operations.
4. Refer to Civil Drawings for all grading and berming, erosion control, storm drainage, utilities and site layout.
5. The Contractor shall arrange and conduct a pre-construction meeting onsite with Landscape Architect prior to work.
6. Plant quantities are for information only, drawing shall prevail if conflict occurs. Contractor is responsible for calculating own quantities and bid accordingly.
7. The Contractor is to notify Landscape Architect after staking is complete and before plant pits are excavated.
8. Tree locations in areas adjacent to drives, walks, walls and light fixtures may be field adjusted as approved by Landscape Architect.
9. The Contractor shall report subsurface soil or drainage problems to the Landscape Architect.
10. The plan is subject to changes based on plant size and material availability. All changes or substitutions must be approved by the City of Lee's Summit, Missouri and the Landscape Architect.
11. Aluminum landscape edging to be used on all landscape beds adjoining turf areas as noted on landscape plans.
12. Landscape Contractor shall be responsible for watering all plant material until the time that a permanent water source is ready.
13. The Contractor shall show proof of procurement, sources, quantities, and varieties for all shrubs, perennials, ornamental grasses, and annuals within 21 days following the award of the contract.
14. Contractor shall provide full maintenance for newly landscaped areas for a period of 30 days after the date of final acceptance. At the end of the maintenance period, a healthy, well-rooted, even-colored, viable turf and landscaped area must be established. The landscaped areas shall be free of weeds, open joints, bare areas, and surface irregularities.
15. Landscape Contractor shall provide rock mulch sample to owner for approval.

GENERAL IRRIGATION NOTES

Irrigation plan to be provided during permitting phase of development

1. Irrigation plan to not interfere with any proposed improvements shown.
2. Irrigation system design to be based on available psi. Minimum operating pressure for spray heads shall be 30 psi and minimum operating pressure for drip zones shall be 40 psi.
3. The contractor shall be responsible for providing uninterrupted, 110 v electrical service to the controller and for all hook-ups. All exposed low voltage wire shall be enclosed in a conduit.
4. Place valve boxes 12" minimum from and parallel to curbs and walks, grouped valves to be equally spaced.
5. Install all mainlines to 1% minimum slope to drain valves located at low points of main system.
6. Irrigation controller and rain sensor shall be located in owner approved locations.

00 LANDSCAPE PLAN KEYNOTES

01 EXISTING TREE. DO NOT DISTURB. PROTECT IN PLACE.
02 EXISTING RETAINING WALL. DO NOT DISTURB. PROTECT IN PLACE.
03 PROPOSED RETAINING WALL. SEE CIVIL.

000 DETAIL KEYNOTES

SEE SHEET L200 FOR DETAIL SPECIFICATIONS

807 TREE PROTECTION DETAIL.

SITE DATA

	Quantity	Required	Existing	Provided	Total
Site Area (SF)	86,236				
Open Yard Area					
1 tree / 5,000 SF of total lot area		17.25	2	24	26
2 shrubs per 5,000 sqft of total lot area		34.49	n/a	35	35
groundcover on all open areas		Y	n/a	Y	Y
Island/Interior Landscape					
total LA are 5% of parking area	86,236	4311.8		15,865	15,865
parking area shrubs		Y		359	359
parking spaces >10	246		48	246	294

LEGEND

- SANI — SANI — *PROPOSED STORM SEWER LINE*
- RD — RD — *PROPOSED ROOF LINE DRAIN*
- ℄ — ℄ — *PROPERTY LINE*
- R/W — R/W — *RIGHT-OF-WAY LINE*
- *LIMITS OF DISTURBANCE*
- *TREE PROTECTION*

STATE OF MISSOURI
BRAD D. BOLAND
NUMBER LA-2013000705
2.13.23
PROFESSIONAL LANDSCAPE ARCHITECT

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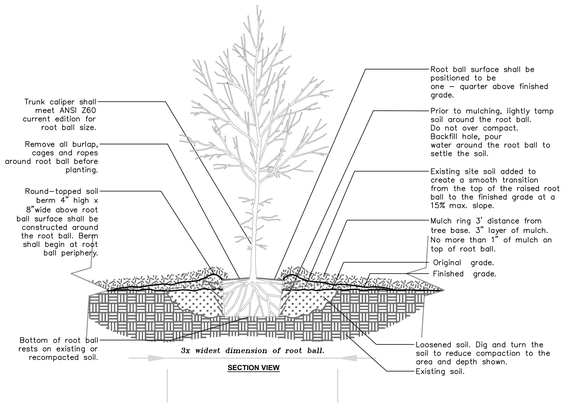
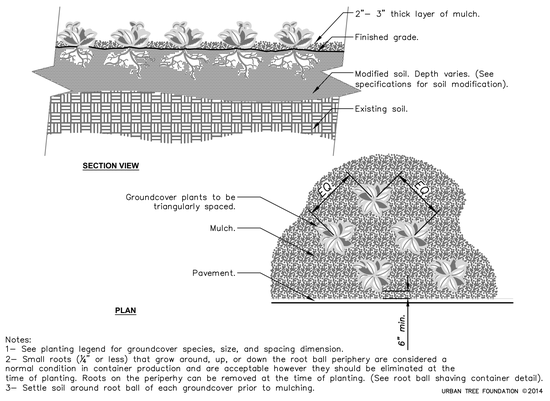
LANDSCAPE PLAN

Feb 06, 2023 - 9:40am Plotted By: kurt.yoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\PSP\033570-SHTS-LNSC.dwg Layout: Landscape Plan



801 TREE PLANTING DETAIL

Not to Scale

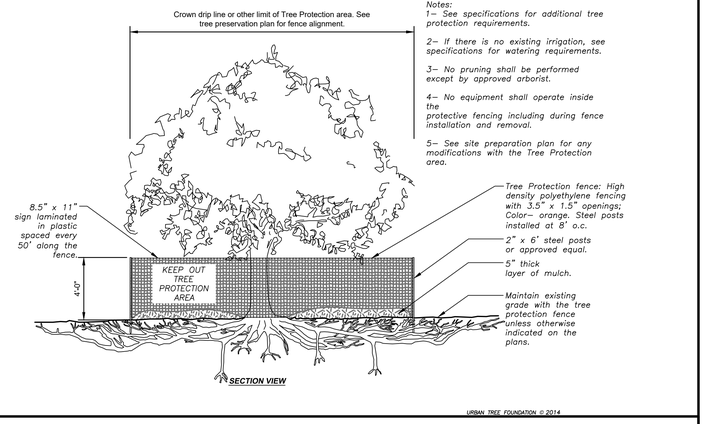


Notes:
1– See planting legend for groundcover species, size, and spacing dimension.
2– Small roots (¼" or less) that grow around, up, or down the root ball periphery are considered a normal condition in container production and are acceptable however they should be eliminated at the time of planting. Roots on the periphery can be removed at the time of planting. (See root ball shaving container detail).
3– Settle soil around root ball of each groundcover prior to mulching.

URBAN TREE FOUNDATION ©2014

804 GROUNDCOVER SPACING DETAIL

Not to Scale



Notes:
1– See specifications for additional tree protection requirements.
2– If there is no existing irrigation, see specifications for watering requirements.
3– No pruning shall be performed except by approved arborist.
4– No equipment shall operate inside the protective fencing including during fence installation and removal.
5– See site preparation plan for any modifications with the Tree Protection area.

URBAN TREE FOUNDATION © 2014

807 TREE PROTECTION DETAIL

Not to Scale

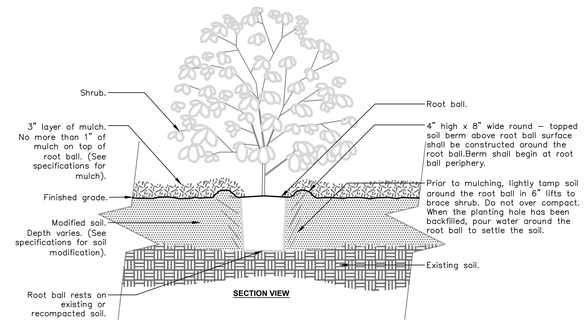
URBAN TREE FOUNDATION © 2014

802 TREE STAKING DETAIL

Not to Scale

805 ALUMINUM LANDSCAPE EDGING DETAIL

Not to Scale



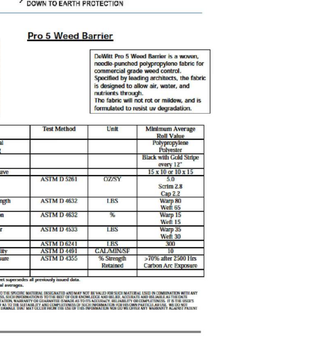
Notes:
1– Shrubs shall be of quality prescribed in the root observations detail and specifications.

2– See specifications for further requirements related to this detail.

URBAN TREE FOUNDATION ©2014

803 SHRUB PLANTING DETAIL

Not to Scale



806 WEED BARRIER DETAIL

Not to Scale

PLANTING NOTES

1. Location of all existing utilities needs to be done before commencing work.
2. The planting plan graphically illustrates overall plant massings. Each plant species massing shall be placed in the field to utilize the greatest coverage of ground plane. The following applies for individual plantings:
   A. Creeping groundcover shall be a minimum of 6" from paving edge.
   B. All trees shall be a minimum of 3 ft. from paving edge.
   C. All plants of the same species shall be equally spaced apart and placed for best aesthetic viewing.
   D. All shrubs shall be a minimum of 2 ft. from paved edge.
3. Mulch all planting bed areas to a minimum depth of 3". Mulch individual trees to a minimum depth of 2".
4. Note: If plants are not labeled - they are existing and shall remain.
5. All landscaped areas in right of way shall be sodded and irrigated unless otherwise specified.

MATERIALS:
1. Plant material shall be healthy, vigorous, and free of disease and insects as per AAN standards.
2. Kind, size and quality of plant material shall conform to American Standard for nursery stock, ANSI-260-2004, or most recent edition.
3. Shredded bark mulch installed at trees shall be finely chipped and shredded hardwood chips, consisting of pure wood products and free of all other foreign substances. Pine bark compost mulch installed at planting bed areas shall be free of all other foreign substances.

INSTALLATION:
1. All compacted soil within the area to be landscaped shall be removed to a depth of not less than two (2) feet and shall be backfilled with topsoil.
2. Prepare planting beds by incorporating an approved composed organic soil into existing soil for all shrub, perennial, and annual planting beds at a minimum depth of 6". Thoroughly mix organic material into the existing soil by roto-tilling or other approved method to a minimum depth of 12".
3. Planting of trees, shrubs, and seeded groundcover shall be commenced during either the spring (March 15 - June15) or fall (September 1 - October 15) planting season and with water available for hand irrigation purposes.
4. Apply liquid, root stimulator, to all shrubs and groundcovers at rates recommended by manufacturer during first planting watering following installation.
5. All planting beds will be prepared with polypropylene landscape fabric, that meets or exceeds the DeWitt Pro5 specification, before plant material is installed. Any product substitution to be submitted by contractor to project manager for approval prior to installation. Rock mulch to be placed over polypropylene landscape fabric at a depth of 2" - 4".
6. Landscape fabric should be installed flat with all folds either pinned down with 4" landscape pins, overlap adjoining sheets a minimum of 2 - 4" steel landscape staples to be used to pin down the corners before rock mulch is installed.
7. After plants have been installed, all planting beds shall be treated with dacthal pre-emergent herbicide prior to mulch application.
8. Plant pit backfill for trees and shrubs shall be 20% peat or well composted manure and 80% topsoil.
9. Trees planted in landscaped planting areas shall be situated a minimum of three (3) feet from any curb.
10. Plant material shall be maintained and guaranteed for a period of one year after owner's acceptance of finished job. All dead or damaged plant material shall be replaced at landscape contractor's expense.
11. Landscape contractor shall maintain all plant material until final acceptance, at which point the one year guarantee begins.
12. All landscape beds shall be level with surrounding hardscape.

SOD NOTES

1. All disturbed areas shall be sodded with turf-type tall fescue sod with a minimum of three cultivars.
2. All landscaped areas shall receive a minimum 6-inch depth of topsoil compacted to 85% density at optimum moisture content.
3. The entire surface to be landscaped should be reasonable smooth and free from stones, roots or other debris.
4. Sod shall be machine stripped at a uniform soil thickness of approximately one inch (plus or minus 1/4-inch). The measurement for thickness shall exclude top growth and thatch, and shall be determined at the time of cutting in the field. Precautions shall be taken to prevent drying and heating. sod damaged by heat and dry conditions, and sod cut more than 18 hours before being incorporated into the work shall not be used.
5. Handling of sod shall be done in a manner that will prevent tearing, breaking, drying and other damage. Protect exposed roots from dehydration. Do not deliver more sod than can be laid within 24 hours.
6. Moisten prepared surface immediately prior to laying sod. water thoroughly and allow surface to dry before installing sod, fertilize, harrow or rake fertilizer in the top 1-1/2-inches of topsoil, at a uniform rate.
7. Fertilizer shall be 20-10-5 commercial fertilizer of the grade, type, and form specified and shall comply with the rules of the state dept. of agriculture. fertilizer shall be identified according to the percent N,P,K in that order.
8. Saturate sod with fine water spray within two hours of planting. During the first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of four inches.

STATE OF MISSOURI
DAVID D. BOLAND
NUMBER LA-2013000705
2.13.23
REGISTERED LANDSCAPE ARCHITECT

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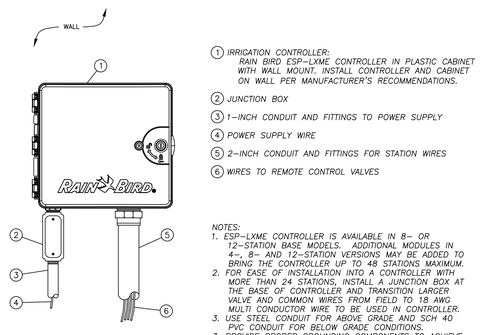
PLANTING DETAILS

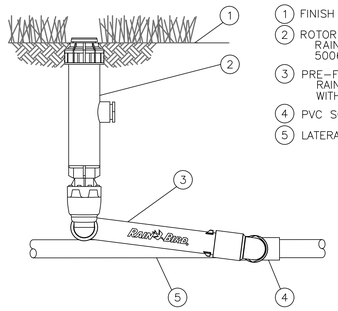
Feb 06, 2023 - 9:43am Plotted By: kurt.ryder V:\033570-st. lukes east\04-DWG\Proj Sheet\PDP\033570-SHTS-LNSC-DTLS.dwg Layout: PLANTING DETAILS



1. IRRIGATION CONTROLLER: RAIN BIRD ESP–LXME CONTROLLER IN PLASTIC CABINET WITH WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
2. JUNCTION BOX
3. 1–INCH CONDUIT AND FITTINGS TO POWER SUPPLY
4. POWER SUPPLY WIRE
5. 2–INCH CONDUIT AND FITTINGS FOR STATION WIRES
6. WIRES TO REMOTE CONTROL VALVES

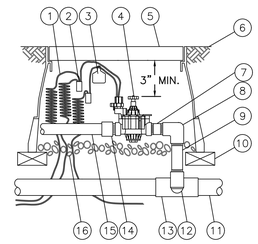
NOTES:
1. ESP–LXME CONTROLLER IS AVAILABLE IN 8– OR 12–STATION BASE MODELS. ADDITIONAL MODULES IN 4–, 8– AND 12–STATION VERSIONS MAY BE ADDED TO BRING THE CONTROLLER UP TO 48 STATIONS MAXIMUM.
2. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.
3. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.

901 Not to Scale **RAINBIRD ESP-LXME CONTRILLER DETAIL**



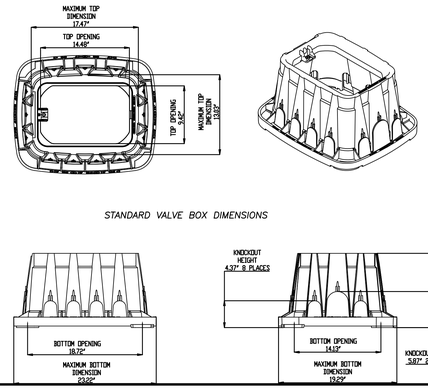
1. FINISH GRADE
2. ROTOR POP–UP SPRINKLER: RAIN BIRD 5006 5006–FC/PC–SAM
3. PRE–FABRICATED SWING JOINT: RAIN BIRD TSJ–075–PRS WITH 45 PSI PRESSURE REGULATOR
4. PVC SCH 40 TEE OR ELL
5. LATERAL PIPE

904 Not to Scale **RAINBIRD ROTOR POP-UP SPRINKLER DETAIL**



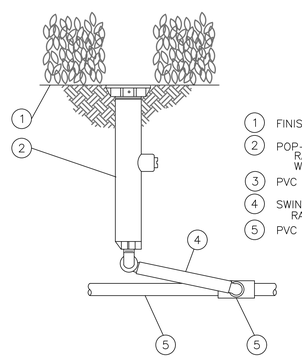
1. 30–INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION: RAIN BIRD SPLICE–1 (1 OF 2)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD PGA
5. VALVE BOX WITH COVER: RAIN BIRD VB–STD
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE (2–INCH LENGTH, HIDDEN) AND SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3.0–INCH MINIMUM DEPTH OF 3/4–INCH WASHED GRAVEL

902 Not to Scale **RAINBIRD REMOTE CONTROL VALVE DETAIL**



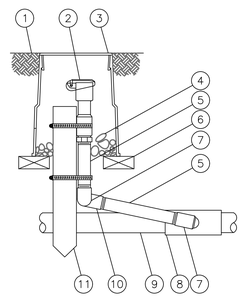
STANDARD VALVE BOX DIMENSIONS

905 Not to Scale **STANDARD VALVE BOX DETAIL**



1. FINISH GRADE/TOP OF MULCH
2. POP–UP SPRAY SPRINKLER: RAIN BIRD 1806 –SAM–PRS WITH 1800 VPC WITH RAIN BIRD ROTARY NOZZLE
3. PVC LATERAL PIPE
4. SWING ASSEMBLY: RAIN BIRD MODEL SA 6050
5. PVC SCH 40 TEE OR ELL

903 Not to Scale **POP-UP SPRINKLER W/SWING PIPE DETAIL**



1. FINISH GRADE/TOP OF MULCH
2. QUICK–COUPLING VALVE: RAIN BIRD MODEL 5NP
3. VALVE BOX WITH COVER: RAIN BIRD VB–6RND
4. 3–INCH MINIMUM DEPTH OF 3/4–INCH WASHED GRAVEL
5. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
6. BRICK (1 OF 2)
7. PVC SCH 40 STREET ELL
8. PVC SCH 40 TEE OR ELL
9. PVC MAINLINE PIPE
10. PVC SCH 40 ELL
11. 2" x 2" REDWOOD STAKE WITH STAINLESS STEEL GEAR CLAMPS OR EQUIVALENT SUPPORT SYSTEM

NOTE:

FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

906 Not to Scale **RAIN BIRD QUICK COUPLER VALVE DETAIL**

IRRIGATION NOTES

1. The system design assumes a minimum available static pressure for the irrigation system of 75 psi at the 1 inch meter. Contractor to verify pressure and flow on site prior to construction and report and discrepancies between these assumptions and actual field conditions in writing to the owner's representative.
2. Read thoroughly and become familiar with the specifications and instillation details for this and related work prior to construction.
3. Coordinate location and marking of underground utilities prior to construction. Notify the owner's representative of any conflict with any underground utility.
4. Do not proceed with the instillation of the irrigation system when it is obvious in the field that obstructions or grade differences existing that might not have been considered in the engineering, or if discrepancies in construction details, legend, notes, or specifications are discovered. Bring all such obstructions or discrepancies to the attention of the owner's representative in writing prior to construction.
5. These drawings are diagrammatic. therefore, the following should be noted:
   A. Avoid conflicts between the irrigation system, planting materials and architectural features. Instill irrigation pipe and wiring in landscaped areas whenever possible.
   B. Use only standard tees and elbow fittings. use of cross type fittings is not permitted.
   C. Irrigation pipe and valves may be shown outside of the planting area, in the hardscape, or outside of property lines for graphic clarity only. Install all irrigation components within landscapes areas or through sleeving and within the property boundary.
6. Provide the following components to the owner's representative prior to the completion of the project.
   A. Two operating keys for each type of manually operated valves.
   B. Two of each servicing wrench or tool needed for complete access, adjustment, and repair of all sprinklers and emitters.
7. Select nozzles for spray and rotary sprinklers with arcs that provide complete and uniform coverage with minimum overspray for the site conditions. To minimize overspray, install pressure compensating nozzles or pressure compensating screens if uniform lateral pressure cannot be attained with pressure adjustment at the remote control valve. Carefully adjust the radius of the throw and arc of coverage of each spray and rotary sprinkler to provide the best performance.
8. The irrigation contractor is responsible for coordinating with the general contractor for the instillation of irrigation sleeving. All sleeving will be schedule 40 PVC. All pipe and wire will be installed in separate sleeves at all paved surfaces, sidewalks, driveways, walls, footings, and hardscape areas. All sleeves may not be shown and/or sized in the plans. The general contractor is responsible for coordinating with the irrigation contractor for the instillation of all required sleeving, proper sizing, and coordinating instillation of sleeving with other trades. Any pipe or wire which passes beneath existing hardscape where sleeving was not installed, requires horizontal boring by the irrigation contractor. Sleeve and conduit sizes shall be a minimum of twice the aggregate diameter of all pipe and wire contained within sleeve or conduit pipe. Minimum sleeve size is 2-inch. Indicate all sleeve locations on "as-built" record drawings.
9. Coordinate and install all electrical power to the irrigation control system in accordance with the national electric code and all applicable local electric utility codes.
10. Gate valves shall be ported to provide for full flow. Labeled and nominal size of valve opening shall be the same.
11. All materials and workmanship shall be true to type, form, finish and of the highest standards of the trade. Damaged or inferior materials shall be removed from the site without delay.
12. Install pressure regulating module for all drip valve assemblies, set discharge pressure to 35 psi.
13. Install irrigation pipe and components a minimum of 8 feet from tree root balls. Pipe routings shown on drawings are diagrammatic.
14. Provide #12-1 AWG bare copper tracing wire along the entire mainline routing. Provide 24 inch coil of tracing wire in each valve box along mainline routing.
15. Contractor shall furnish and install material and equipment pertaining to the irrigation system herein specified or shown on the drawings. This shall include all items necessary to complete installation.
16. Irrigation contractor to cap all flush ends hand tight prior to backfill.
17. Irrigation contractor shall coordinate work with planting plans to avoid conflicting locations between piping and plant pits.
18. All materials shall be installed as detailed in the plans. If the contract drawings and/or specifications do not thoroughly describe the method or techniques to be used, then the contractor shall install as per manufacturers specifications. If a contradiction occurs, notify the landscape architect immediately.
19. Irrigation contractor to use Teflon tape on all threaded joints.
20. No pipes shall be installed parallel and directly over another line.
21. Brand each valve box with 1" lettering showing zone number and controller letter. This stamp is to match the zone and controller associates with the valve's operation.
22. Contractor shall perform the following:
   A. Visit site and verify existing grades, construction and conditions.
   B. Notify landscape architect of discrepancies between plan and field conditions.
   C. Restore contractor damaged existing work to the satisfaction of the engineer or landscape architect without cost to the owner.
   D. Be satisfied that the plan can be constructed, functional and complete.
23. All equipment shall be maintained while under construction. Maintenance includes: water scheduling, replacement of defective or damaged equipment, adjustment and re-adjustment of heads and other equipment.
24. Contractor to ensure the following:
   A. Lines and valves are to be placed within planting beds and project limits. These plans are schematic. contractor shall size all pipe.
   B. 100% coverage of irrigation system to all plants regardless of size or type and shall confirm all non-irrigated areas prior to submitting a bid.
25. Install two (2) spare #14-1 AWG control wires for each unused station and one spare #12-1 AWG common wire from the respective controller to this location for use as a spare wires in each remote control valve box along the entire wire routing for this controller. Seal wire ends water tight and contain within valve box at this location.
26. Should field adjustments be made to the site plan, irrigation contractor shall make all necessary adjustments to the irrigation system to ensure proper functionality. Landscape architect is to be notified of any and all changes made to the irrigation system, prior to instillation of said changes.

STATE OF MISSOURI
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NUMBER LA-2013000705
2.13.23
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Date	12/22/2022
Job Number	3-21037
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Checked By	CDW

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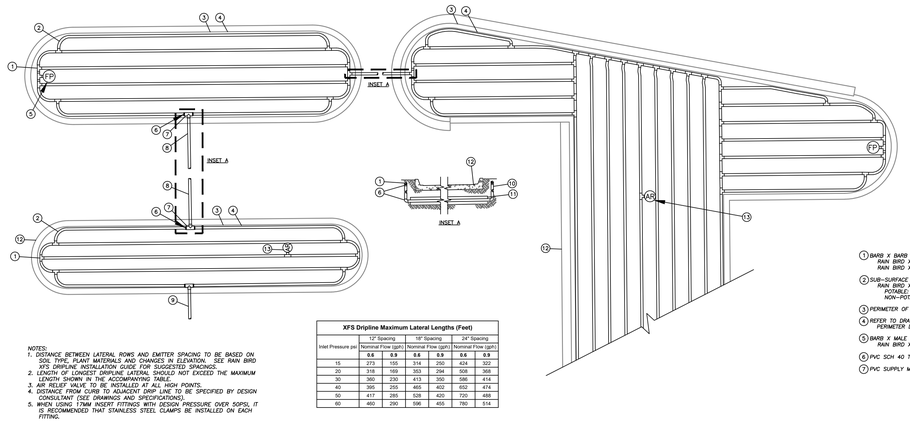
IRRIGATION DETAILS 1

Feb 06, 2023 - 9:47am Plotted By: kurtyoder V:\033570-st. lukes east\04-DWG\Eng\Sheet\TOP\033570-SHTS-LNSC-DTLS.dwg Layout: IRRIGATION DETAILS 1



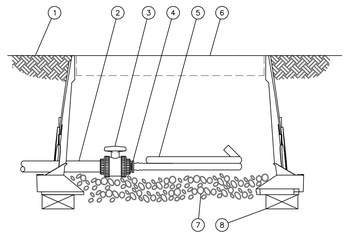
NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XFS DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
3. AIR RELIEF VALVE TO BE INSTALLED AT ALL HIGH POINTS.
4. LAYOUT MAY VARY FROM THAT SHOWN. REFER TO DRAWINGS AND SPECIFICATIONS.
5. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

XFS Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure psi	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (gph)		Nominal Flow (gph)		Nominal Flow (gph)	
	0.6	0.9	0.6	0.9	0.6	0.9
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

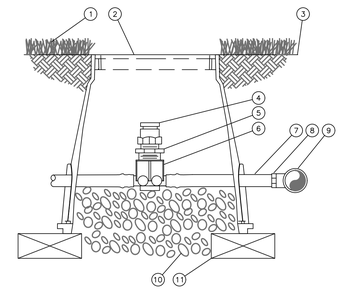
1. BARB X BARB INSERT TEE OR CROSS: RAIN BIRD XFT-TEE OR RAIN BIRD XFD-CROSS (TYPICAL)
2. SUB-SURFACE DRIPLINE PIPE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
3. PERIMETER OF AREA
4. REFER TO DRAWINGS AND SPECIFICATIONS FOR PERIMETER DRIPLINE PIPE DISTANCE TO EDGE.
5. BARB X MALE FITTING: RAIN BIRD XFT-MA FITTING (TYPICAL)
6. PVC SCH 40 TEE OR EL (TYPICAL)
7. PVC SUPPLY MANIFOLD
8. FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL "XFS FLUSH POINT"
9. PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
10. PVC SCH 40 RISER PIPE
11. PVC SCH 40 SLEEVE PIPE SIZED TWICE SIZE OF MANIFOLD PIPE SIZE.
12. PAVEMENT AND CURB
13. ½" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV050 SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION

907 TYPICAL ISLAND DRIPLINE LAYOUT DETAIL
Not to Scale



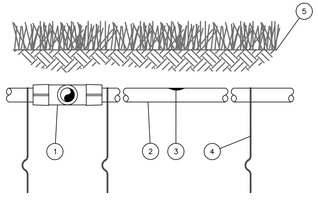
1. FINISH GRADE
2. PVC DRIP MANIFOLD PIPE
3. PVC 1" X ¾" TRUE UNION BALL VALVE
4. EASY FIT MALE X BARB ADAPTER: RAIN BIRD XFT-MA-075
5. SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES BLANK TUBING
6. 12-INCH VALVE BOX WITH COVER: RAIN BIRD VB-STD
7. 3-INCH MINIMUM DEPTH OF ¾" WASHED GRAVEL
8. BRICK (1 OF 2)

908 DRIPLINE FLUSH POINT W/BALL VALVE DETAIL
Not to Scale



1. TURF GRASS
2. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
3. FINISH GRADE
4. ½" AIR RELIEF VALVE: RAIN BIRD ARV050 TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
5. ½" X ¾" PVC REDUCER BUSHING
6. BARB X FEMALE THREAD CONNECTOR: RAIN BIRD XFD-ITFA FITTING
7. ½" BLANK DRIPLINE TUBING: RAIN BIRD XF SERIES
8. BARB X MALE THREAD CONNECTOR: RAIN BIRD XFF-MA FITTING
9. PVC TEE CONNECTED TO PVC HEADER PIPE
10. 3" MINIMUM DEPTH OF ¾" WASHED GRAVEL
11. BRICK (1 OF 2)

908 DRIPLINE AIR RELIEF VALVE DETAIL
Not to Scale



1. EASY FIT COMPRESSION TEE: RAIN BIRD MDCFTEE
2. SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
3. INLINE DRIP EMITTER
4. TIE DOWN STAKE: RAIN BIRD TDS-050 WITH BEND (TYPICAL)
5. TURF/FINISH GRADE OR SHRUB BED WITH MULCH

NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
3. INSERTION PLOW AND TRENCHED INSTALLATIONS DO NOT REQUIRE TIE DOWN STAKES.

909 XFS SUB-SURFACE DRIPLINE BURIAL DETAIL
Not to Scale

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IRRIGATION DETAILS 2

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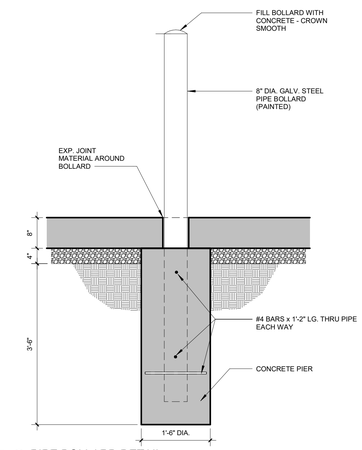
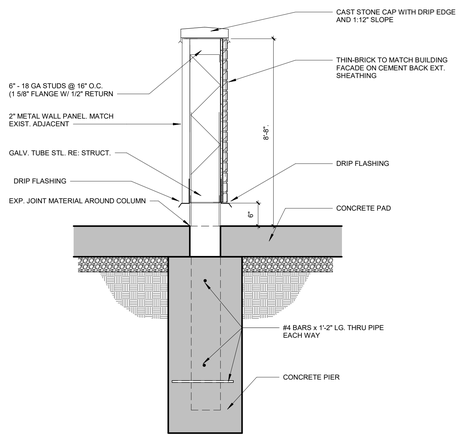
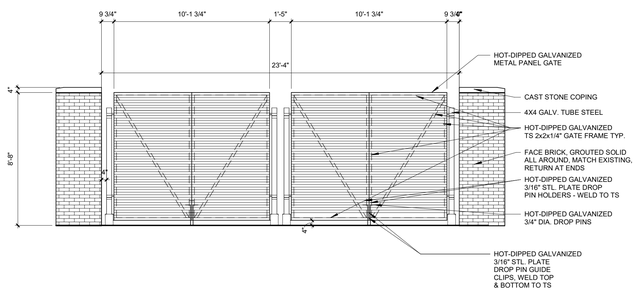


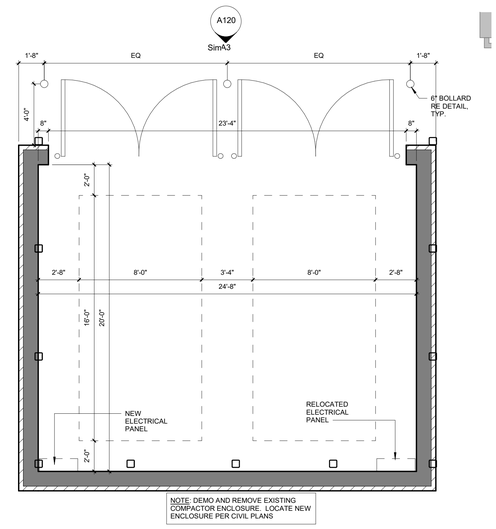
A6 PIPE BOLLARD DETAIL
3/4" = 1'-0"



A5 TRASH SCREEN
3/4" = 1'-0"



A3 TRASH ENCLOSURE ELEVATION
1/4" = 1'-0"



A1 01 - TRASH ENCLOSURE PLAN
1/4" = 1'-0"

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FINAL DEVELOPMENT PLAN

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Drawn By	Author
Checked By	Checker

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ARCHITECTURAL SITE PLAN DETAILS

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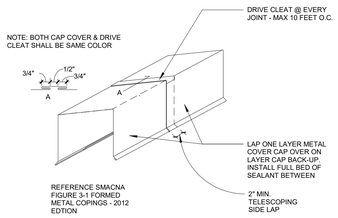
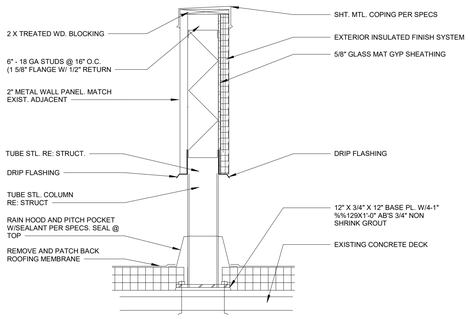
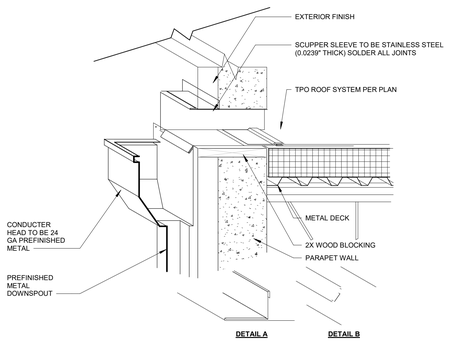


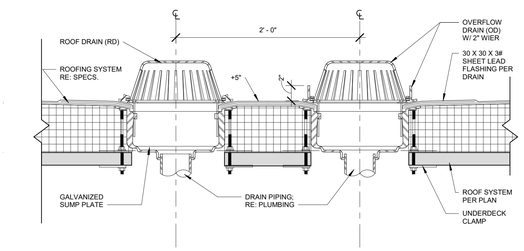
E6 COPING DRIVE CLEAT
3/4" = 1'-0"



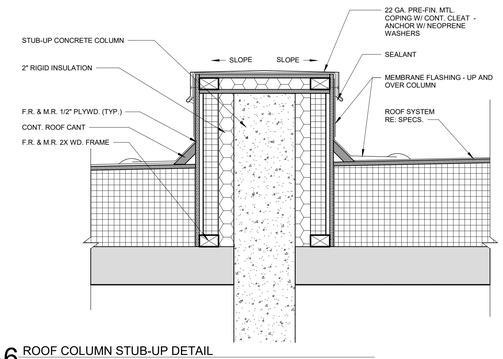
D6 ROOF SCREEN
3/4" = 1'-0"



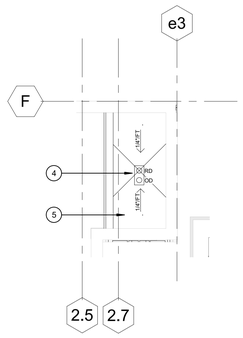
C6 SCUPPER DETAIL
1 1/2" = 1'-0"



B6 ROOF DRAIN AND OVERFLOW DETAIL
1 1/2" = 1'-0"



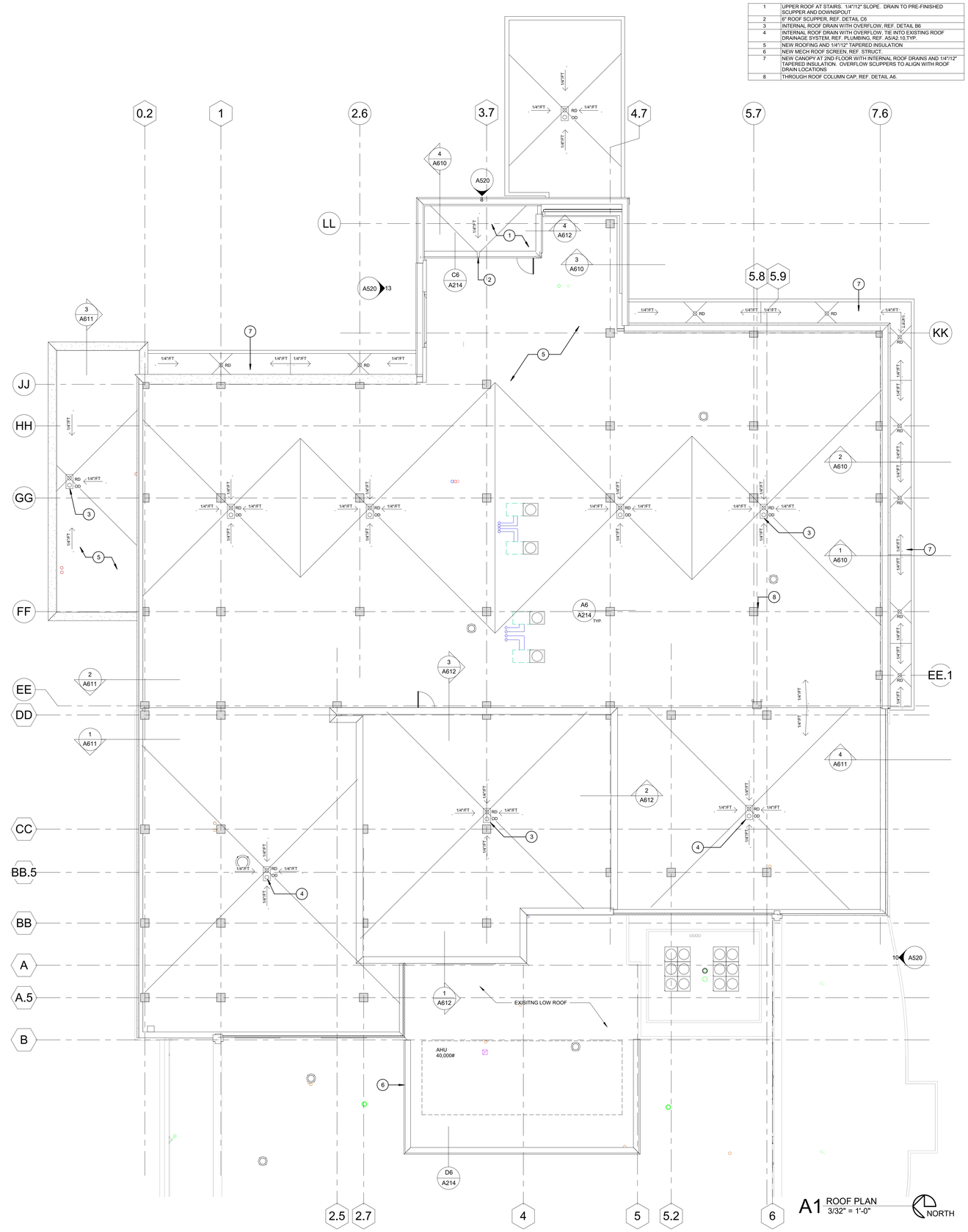
A6 ROOF COLUMN STUB-UP DETAIL
1 1/2" = 1'-0"



A5 ROOF PLAN @ NEW EGRESS STAIR
3/32" = 1'-0"

KEYNOTES - ROOF PLAN

Number	Comments
1	UPPER ROOF AT STAIRS. 1/4"/12" SLOPE. DRAIN TO PRE-FINISHED SCUPPER AND DOWNSPOUT
2	6" ROOF SCUPPER, REF. DETAIL C6
3	INTERNAL ROOF DRAIN WITH OVERFLOW, REF. DETAIL B6
4	INTERNAL ROOF DRAIN WITH OVERFLOW, TIE INTO EXISTING ROOF DRAINAGE SYSTEM, REF. PLUMBING, AS/A2.10,TYP.
5	NEW ROOFING AND 1/4"/12" TAPERED INSULATION
6	NEW MECH ROOF SCREEN, REF. STRUCT.
7	NEW CANOPY AT 2ND FLOOR WITH INTERNAL ROOF DRAINS AND 1/4"/12" TAPERED INSULATION. OVERFLOW SCUPPERS TO ALIGN WITH ROOF DRAIN LOCATIONS
8	THROUGH ROOF COLUMN CAP, REF. DETAIL A6.



A1 ROOF PLAN
3/32" = 1'-0"

NORTH

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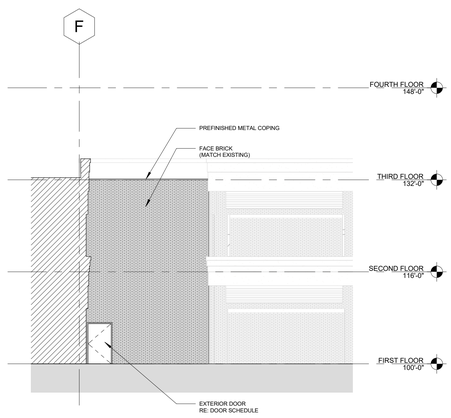
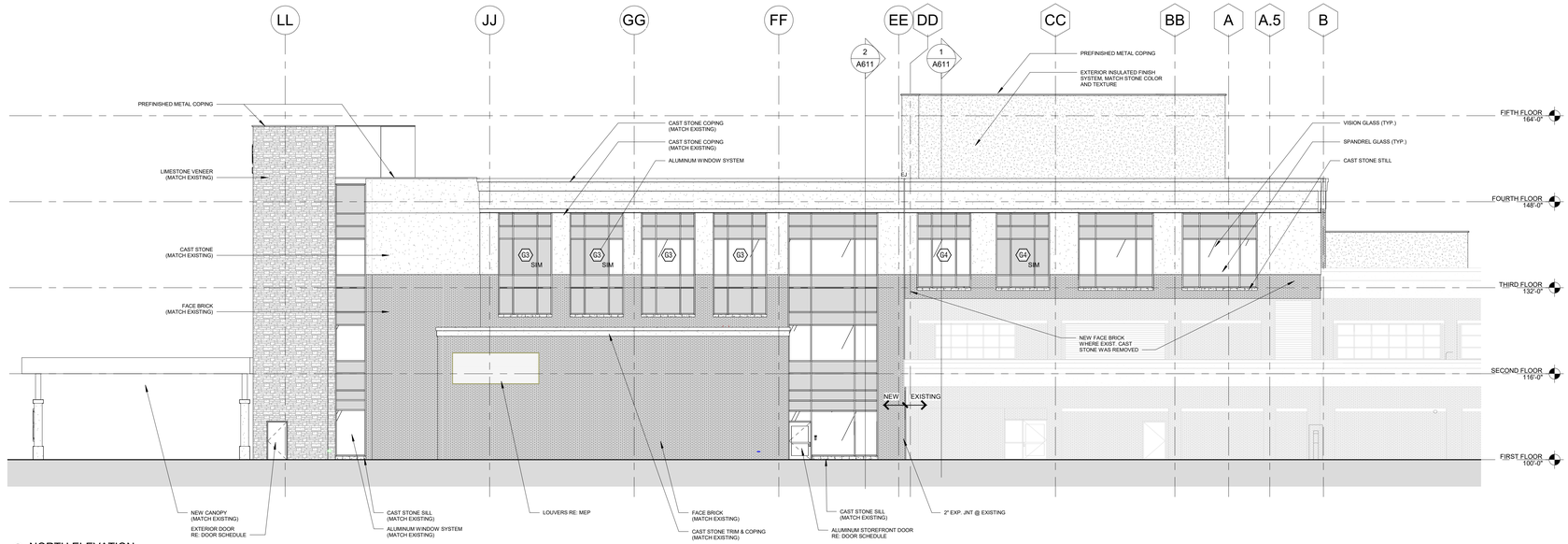
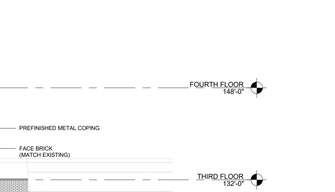
ROOF PLAN AND DETAILS



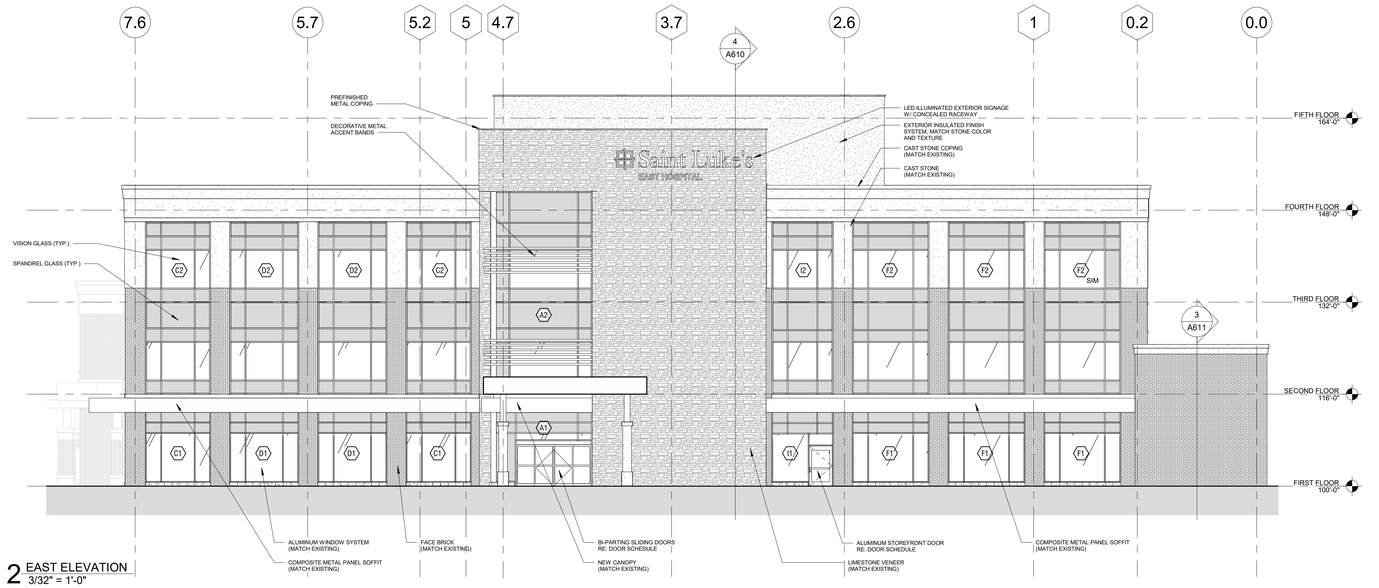
5 ELEVATION @ NEW EGRESS STAIR
3/32" = 1'-0"



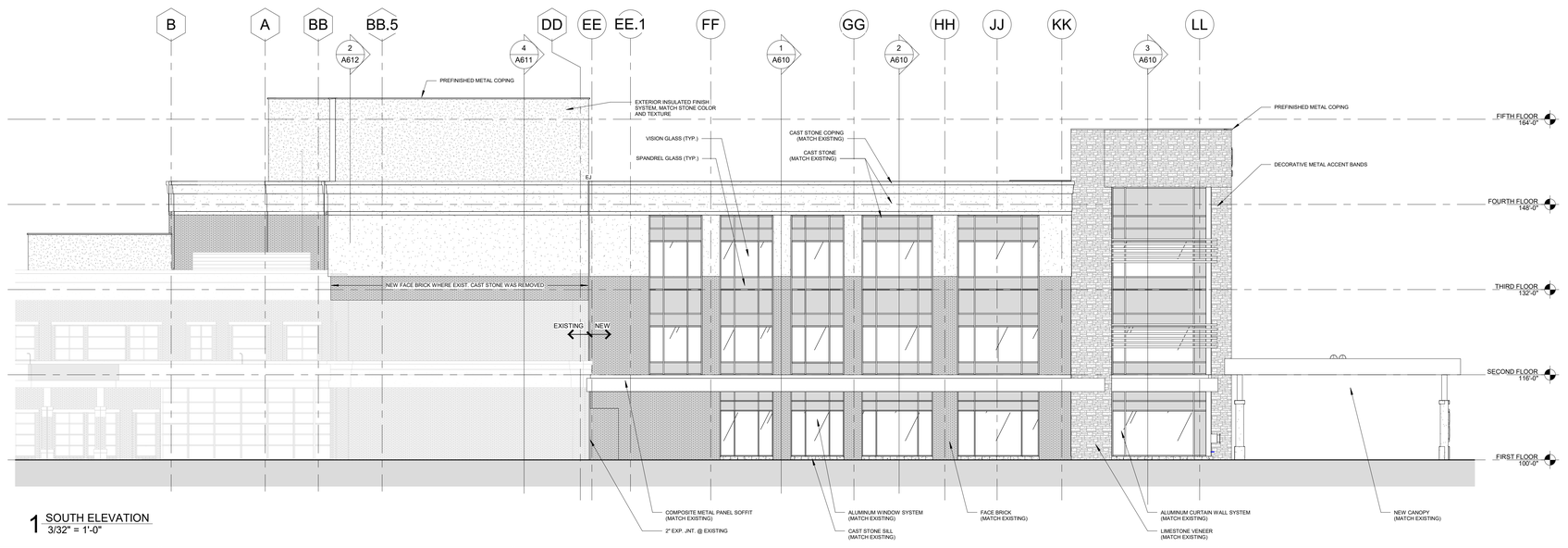
3 NORTH ELEVATION
3/32" = 1'-0"



4 EAST CANOPY ELEVATION
3/32" = 1'-0"



2 EAST ELEVATION
3/32" = 1'-0"



1 SOUTH ELEVATION
3/32" = 1'-0"

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Samuel A. Boland - Architect
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Saint Luke's
EAST HOSPITAL
ASC EXPANSION & RENOVATION
100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
FINAL DEVELOPMENT PLAN

Date	Project Issue
Job Number	3-21037
Drawn By	Author
Checked By	Checker

Revision

Number	Date	Description

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As Noted on Plan Review
Development Services Department
Lee's Summit, Missouri
03/28/2023

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EXTERIOR ELEVATIONS

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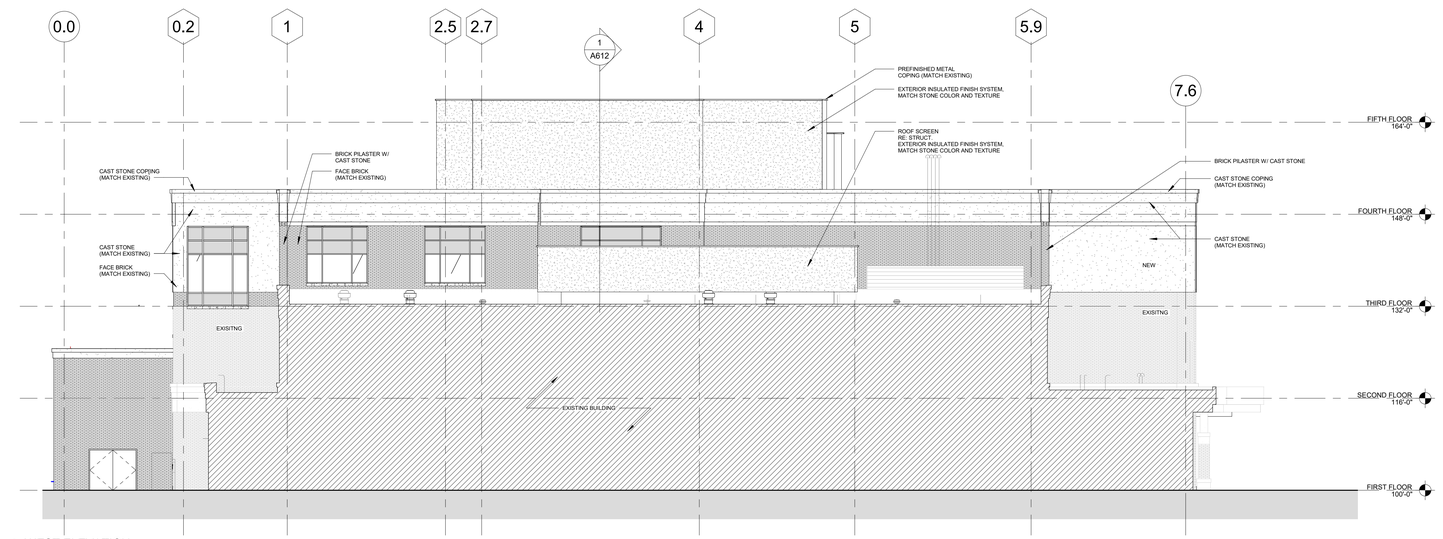

1 WEST ELEVATION
3/32" = 1'-0"

Saint Luke's
EAST HOSPITAL

ASC EXPANSION & RENOVATION
100 NE Saint Luke's Blvd
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EXTERIOR ELEVATIONS

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