

PROPOSED PROPERTY DESCRIPTION

Lot 2, Block 1, RAMSEY STORAGE CENTER, Anoka County, Minnesota.

PROPERTY OWNER

Ramsey Storage Center LLC
86 Diamond Dr.
Henniker, NH 03242

LOT INFORMATION

PID 27-32-25-22-0085
Existing Zoning: B2 - Business District
Address: 14725 Ramsey Blvd. NW
Area = 1.74 acres
Watershed District = Lower Rum River WMO
School District 11

LIL X DEVELOPER

Jeremy Spaude
21830 S. Diamond Lake Dr.
Rogers, MN 55374
612-501-1493

ENGINEER/SURVEYOR

Sisu Land Surveying LLC
2580 Christian Dr.
Chaska, MN 55318
Contact: Curt Kallio, PE, LS
612-418-6828

STORMWATER

All stormwater runoff will drain to the existing stormwater pond north of the site. No additional treatment is proposed. The total proposed new impervious surface is 0.85 acres.

TREE PRESERVATION

Existing tree survey, inventory, preservation, and mitigation is shown on Sheets C3 to C5.

LIGHTING PLAN

Potential parking lot lights are shown. A lighting plan will be designed by others and may vary from what is shown.

LANDSCAPING PLAN

A landscaping plan will be prepared by others.

UTILITIES

Water and sewer services will be provided from existing stubs at the NW corner of the site. Connections are shown on Sheet C7.

WETLANDS

No wetland delineation has been performed. There are no anticipated wetlands on site.

FLOODPLAIN

This property is not located in a floodplain

SOILS

Existing soils are mapped as Hubbard loamy sands. No soil boring data is available.

SHEET INDEX

- C1 SITE PLAN
- C2 CERTIFICATE OF SURVEY/EXISTING CONDITIONS
- C3 TREE SURVEY
- C4 TREE INVENTORY
- C5 TREE PRESERVATION
- C6 REMOVAL PLAN
- C7 GRADING, DRAINAGE, AND EROSION CONTROL PLAN
- C8 UTILITY
- C9-C10 STORM SEWER PLANS
- C11 TURF ESTABLISHMENT PLAN
- C12 RIGHT TURN LANE PLANS
- C13-C14 CITY DETAILS

LEGEND

- PROPERTY LINE
- PARCEL LINES
- EASEMENT
- EX. CONTOUR
- PROP. CONTOUR
- DRAINAGE ARROW
- PROPOSED LIGHTING
- EX. CATCH BASIN
- EX. STORM SEWER
- EX. EX. STORM MH
- EX. FES
- EX. SAN. SEWER
- EX. SAN. SEWER MH
- EX. WATERMAIN
- EX. HYDRANT

0 30 60
SCALE IN FEET

APPROVED FOR COUNTY TURN LANE ITEMS ONLY

DATE

ANOKA COUNTY ENGINEER



LAND SURVEYING
& ENGINEERING

2580 Christian Dr.
Chaska, MN 55318
612-418-6828

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Engineer under the laws of the State of Minnesota.

11/2/2022
Date

Curt Kallio
Curtiss J. Kallio, Lic. No. 26909

BY	REVISION	DATE

PREPARED FOR:
Jeremy Spaude
21830 S. Diamond Lake Dr.
Rogers, MN 55374
612-501-1493

SHEET TITLE & PROJECT:
Site Plan
Lil Explorers Childcare Center
Ramsey, MN

PROJECT NO:
202253

SHEET

C1

PROPOSED PROPERTY DESCRIPTION

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TREE SURVEY

Existing tree inventory is shown on Sheet C3 and C4.

WETLANDS

No wetland delineation has been performed. There are no anticipated wetlands on site.

FLOODPLAIN

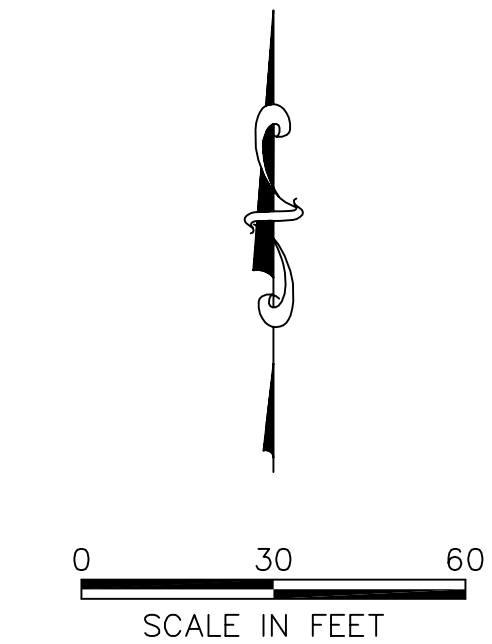
This property is not located in a floodplain

SOILS

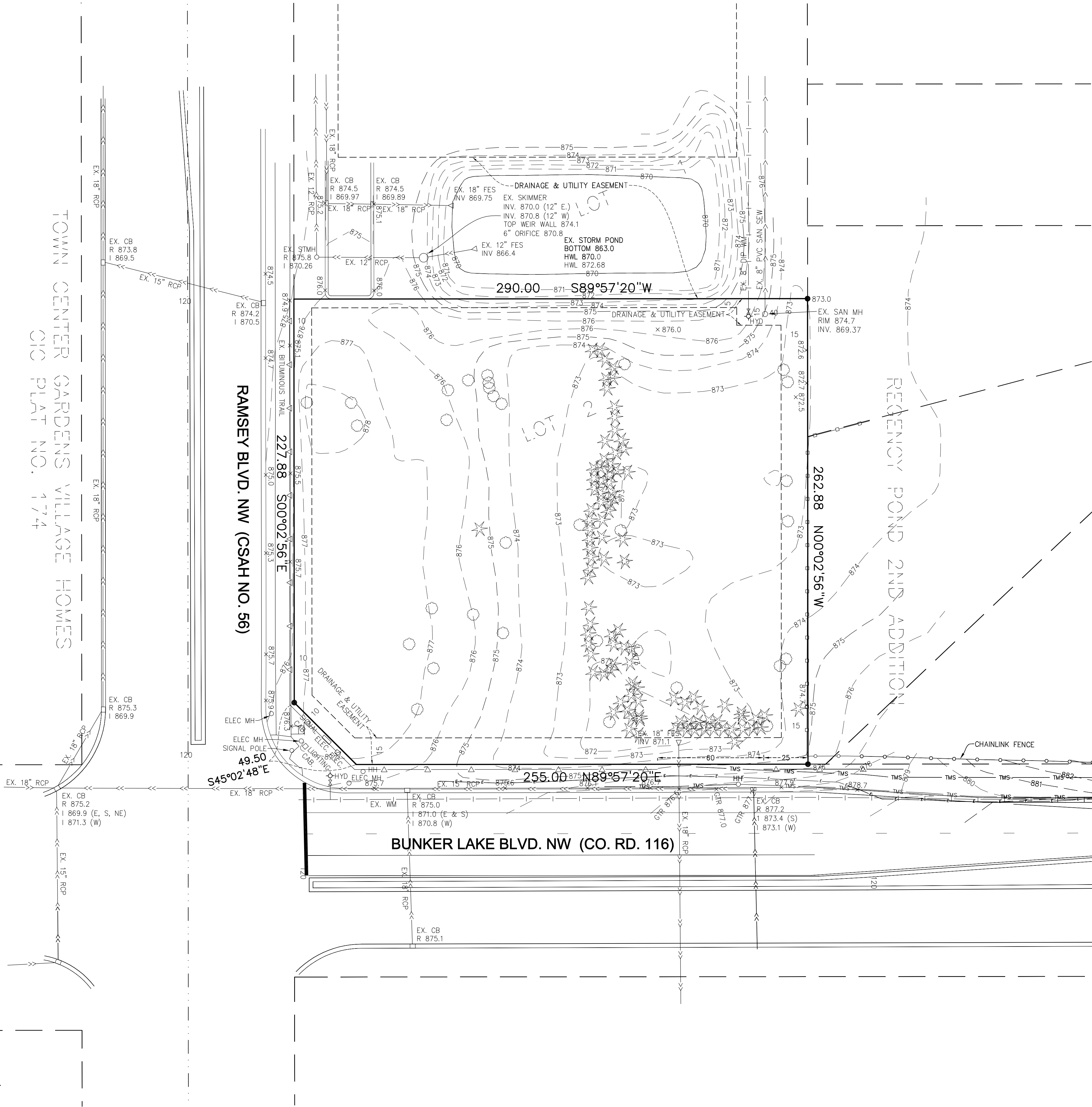
Existing soils are mapped as Hubbard loamy sands. No soil boring data is available.

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- SETBACK
- EASEMENT
- EX. CONTOUR
- PROP. CONTOUR
- DRAINAGE ARROW
- EX. CATCH BASIN
- EX. STORM SEWER
- EX. EX. STORM MH
- EX. FES
- EX. SAN. SEWER
- EX. SAN. SEWER MH
- EX. WATERMAIN
- EX. HYDRANT
- EX. GATE VALVE
- POWER POLE
- LIGHT POLE
- ACCESS CONTROL



- DENOTES IRON MONUMENT FOUND
- DENOTES 1/2 INCH BY 14 INCH MONUMENT SET AND MARKED BY LICENSE NO. 26909, UNLESS OTHERWISE SHOWN.



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612-418-6828

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Curt Kallio
Curtiss J. Kallio, Lic. No. 26909 11/2/2022 Date

BY	REVISION	DATE

PREPARED FOR:

Jeremy Spaude
21830 S. Diamond Lake Dr.
Rogers, MN 55374
612-501-1493

SHEET TITLE & PROJECT:

Certificate of Survey and Existing Conditions

Lil Explorers Childcare Center
Ramsey, MN

PROJECT NO:

202253

SHEET

C2

— TF — TREE FENCE, ORANGE SNOW FENCE OR SILT FENCE

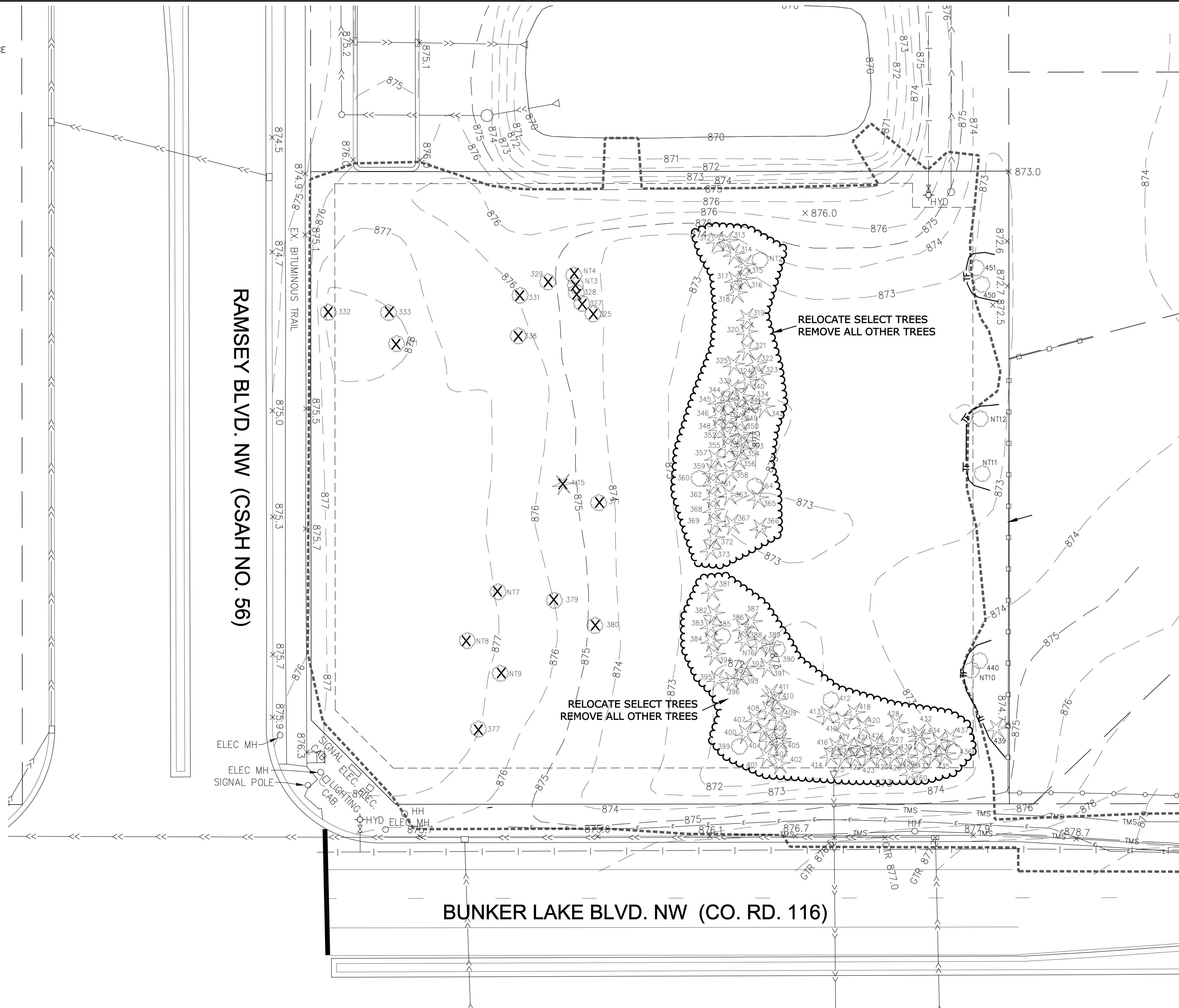
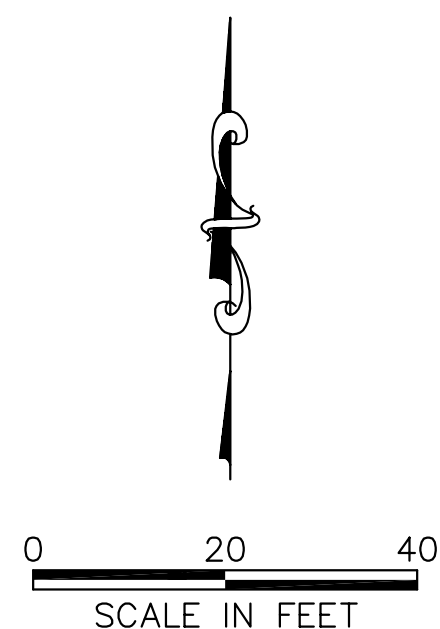
 ³²⁹ EXISTING DECIDUOUS TREE & TAG NUMBER

 ³²⁹ EXISTING CONIFEROUS TREE & TAG NUMBER

X TREE REMOVAL INDIVIDUAL

 TREE RELOCATE/REMOVAL GROUP

■ ■ ■ ■ CONSTRUCTION LIMITS

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& ENGINEERING

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Curt Kallis 11/2/2022

[illegible]

PREPARED FOR:

Jeremy Spaude
21830 S. Diamond Lake Dr.
Rogers, MN 55374
612-501-1493

Tree Survey

TITLE & PROJECT:

Lil Explorers Childcare Center
Ramsey, MN

PROJECT NO:
202253

SHEET

C3

TAG	IDENTIFICATION	DBH	CONDITION	STATUS	TAG	IDENTIFICATION	DBH	CONDITION	STATUS	TAG	IDENTIFICATION	DBH	CONDITION	STATUS
160	5 red pine	5	good	Remove	363	4 red pine	4	good	Remove	417	5 red pine	5	good	Remove
312	7 red pine	7	good	Remove	364	8 9 14 16 box elder	37	good	Remove	418	5 red pine	5	good	Remove
313	6 red pine	6	good	Remove	365	6 red pine	6	good	Remove	419	4 red pine	4	good	Remove
314	6 red pine	6	good	Remove	366	9 red pine	9	good	Remove	420	6 red pine	6	good	Remove
315	7 red pine	7	good	Remove	367	9 red pine	9	good	Remove	421	6 red pine	6	good	Remove
316	7 red pine	7	good	Remove	368	8 red pine	8	good	Remove	422	6 red pine	6	good	Remove
317	8 red pine	8	good	Remove	369	9 red pine	9	good	Remove	423	7 red pine	7	good	Remove
318	8 red pine	8	good	Remove	371	19 siberian elm	19	good	Remove	424	6 red pine	6	good	Remove
319	9 red pine	9	good	Remove	372	9 red pine	9	good	Remove	425	6 red pine	6	good	Remove
320	8 red pine	8	good	Remove	373	10 red pine	10	good	Remove	426	7 red pine	7	good	Remove
321	9 red pine	9	good	Remove	377	10 16 siberian elm	34	good	Remove	427	7 red pine	7	good	Remove
322	8 red pine	8	good	Remove	379	8 siberian elm	8	good	Remove	428	7 red pine	7	good	Remove
323	7 red pine	7	good	Remove	380	9 14 siberian elm	23	good	Remove	429	7 red pine	7	good	Remove
324	4 red pine	4	good	Remove	381	10 red pine	10	good	Remove	430	7 red pine	7	good	Remove
325	9 red pine	9	good	Remove	382	10 red pine	10	good	Remove	431	5 red pine	5	good	Remove
326	10 aspen dying	0	dying	Remove	383	7 red pine	7	good	Remove	432	6 red pine	6	good	Remove
327	9 aspen	9	good	Remove	384	7 red pine	7	good	Remove	433	6 red pine	6	good	Remove
328	9 aspen	9	good	Remove	385	8 11 elm	19	good	Remove	434	7 red pine	7	good	Remove
329	12 16 ash	28	good	Remove	386	7 red pine	7	good	Remove	435	6 red pine	6	good	Remove
331	10 aspen	10	good	Remove	387	4 red pine	4	good	Remove	436	16 cottonwood	16	good	Remove
332	14 cottonwood	14	good	Remove	388	7 red pine	7	good	Remove	437	6 red pine	6	good	Remove
333	8 8 ash	16	good	Remove	389	7 red pine	7	good	Remove	438	9 red pine	0	Dead	Remove
334	8 red pine	8	good	Remove	390	15 ash dead	0	dead	Remove	439	7 red pine	7	good	Save
338	10 aspen	10	good	Remove	391	5 red pine	5	good	Remove	440	7 8 siberian elm	15	good	Save
339	6 red pine	6	good	Remove	392	5 red pine	5	good	Remove	450	7 elm	7	good	Save
340	8 red pine	8	good	Remove	393	5 red pine	5	good	Remove	451	11 elm	11	good	Save
341	5 red pine	5	good	Remove	394	9 red pine	9	good	Remove	NT1	9 siberian elm	9	good	Remove
342	12 red pine	12	good	Remove	395	8 red pine	8	good	Remove	NT10	9 siberian elm	9	good	Save
343	5 red pine	5	good	Remove	396	5 red pine	5	good	Remove	NT11	8 box elder	8	good	Save
344	6 red pine	6	good	Remove	399	8 elm	8	good	Remove	NT12	8 elm	8	good	Save
345	7 red pine	7	good	Remove	400	7 red pine	7	good	Remove	NT2	22 elm	22	good	Remove
346	7 red pine	7	good	Remove	401	10 red pine	10	good	Remove	NT3	8 aspen	8	good	Remove
348	7 red pine	7	good	Remove	402	7 red pine	7	good	Remove	NT4	8 aspen	8	good	Remove
349	4 red pine	4	good	Remove	403	6 red pine	6	good	Remove	NT5	12 cedar	12	good	Remove
350	8 red pine	8	good	Remove	404	6 red pine	6	good	Remove	NT6	4 red pine	4	good	Remove
351	8 red pine	8	good	Remove	405	5 red pine	5	good	Remove	NT7	12 ash dead	0	dead	Remove
352	7 red pine	7	good	Remove	406	6 red pine	6	good	Remove	NT8	7 8 siberian elm	15	good	Remove
353	4 red pine	4	good	Remove	407	7 red pine	7	good	Remove	NT9	8 siberian elm	8	good	Remove
354	6 red pine	6	good	Remove	408	6 red pine	6	good	Remove					
355	7 red pine	7	good	Remove	409	7 red pine	7	good	Remove					
356	5 red pine	5	good	Remove	410	5 red pine	5	good	Remove					
357	8 red pine	8	good	Remove	411	6 red pine	6	good	Remove					
358	6 red pine	6	good	Remove	412	8 8 10 box elder	26	good	Remove					
359	6 red pine	6	good	Remove	413	5 red pine	5	good	Remove					

TREE REMOVAL/PRESERVATION SUMMARY

	TOTAL DBH	1099
	SIBERIAN ELM DBH	140
TOTAL DBH EXCLUDING SIBERIAN ELM		959
30% OF TOTAL DBH EXCL. SIB. ELM		288
DBH SAVED EXCL. SIBERIAN ELM		41
ANTICIPATED DBH RELOCATED		247
ANTICIPATED DBH PLANTED		247
ANTICIPATED REMAINING RESTITUTION		0

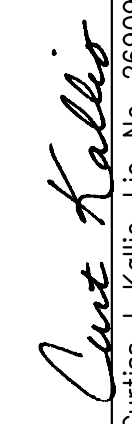
NOTE: FINAL TOTALS FOR RELOCATION AND PLANTINGS
PER LANDSCAPING PLANS PREPARED BY OTHERS



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LAND SURVEYING
& ENGINEERING

2580 Christian Dr.
Chaska, MN 55318
612-418-6828

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Curtiss J. Kallio, Lic. No. 26809

11/2/2022

Date

BY

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REVISION

--	--	--	--	--	--

DATE

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PREPARED FOR:

Jeremy Spaude
21830 S. Diamond Lake Dr.
Rogers, MN 55374
612-501-1493

SHEET TITLE & PROJECT:

Tree Inventory

Lil Explorers Childcare Center
Ramsey, MN

PROJECT NO:

202253

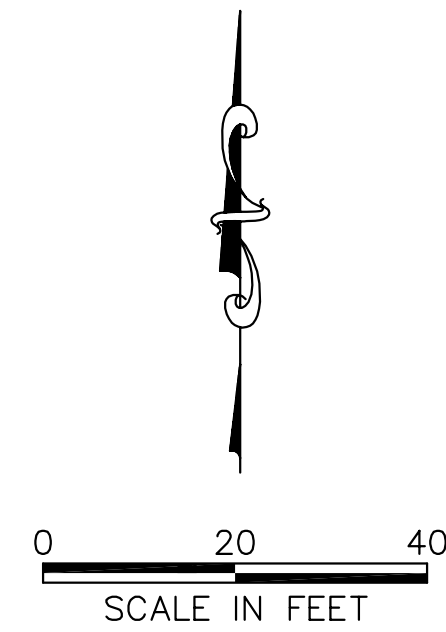
SHEET

C4

LEGEND

- TF — TREE FENCE, ORANGE SNOW FENCE OR SILT FENCE
- 329 EXISTING DECIDUOUS TREE & TAG NUMBER
- 329 EXISTING CONIFEROUS TREE & TAG NUMBER
- PROPOSED TREE RELOCATION
APPROXIMATELY 29 TREES WITH 7" AVG. DBH
- CONSTRUCTION LIMITS
- 900 EXISTING CONTOUR
- 864 PROPOSED CONTOUR
- SANITARY SEWER
- WATERMAIN
- STORM SEWER

NOTE: THE TREE RELOCATIONS SHOWN ARE APPROXIMATE. THE FINAL LOCATION AND NUMBER WILL BE PER THE LANDSCAPING PLAN. PROPOSED TREES FOR THE TREE REMOVAL MITIGATION WILL BE SHOWN ON THE LANDSCAPING PLANS.



RAMSEY BLVD. NW (CSAH NO. 56)

BUNKER LAKE BLVD. NW (CO. RD. 116)

PROPOSED BUILDING
SINGLE STORY
16,299 SF
FFE 877.3

4' WIDE PLANTING BERM
ARBORVIDAES OR OTHER
SCREENING



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Curtis J. Kallio
Curtiss J. Kallio, Lic. No. 26909

BY	REVISION	DATE

PREPARED FOR:
Jeremy Spaude
21830 S. Diamond Lake Dr.
Rogers, MN 55374
612-501-1493

SHEET TITLE & PROJECT:
Tree Preservation and Mitigation
Lil Explorers Childcare Center
Ramsey, MN

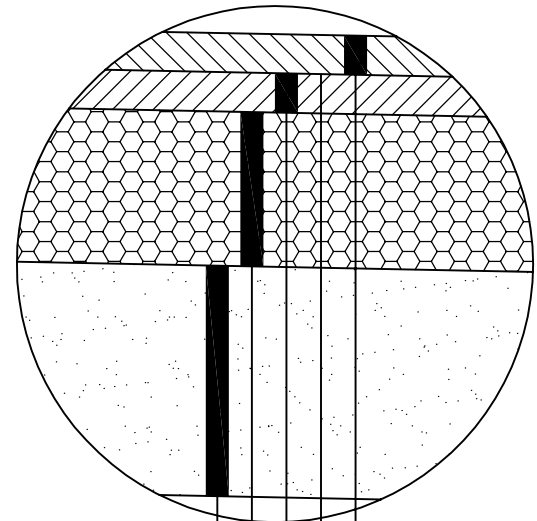
PROJECT NO:
202253

SHEET

C5

GRADING NOTES

1. The grading contractor shall verify locations and elevations of all underground utilities with the respective utility companies prior to construction.
2. 6" minimum topsoil to placed on all areas to have turf established.
3. The estimated disturbed area is 1.8 acres. An NPDES Permit is required. The SWPPP will be prepared as a separate document with the final construction plans.
4. The new impervious area is 0.83 acres.
5. The estimated excavation is 6,000 CY.
6. A rock construction exit or other approved method is required at all access points to and from the site.



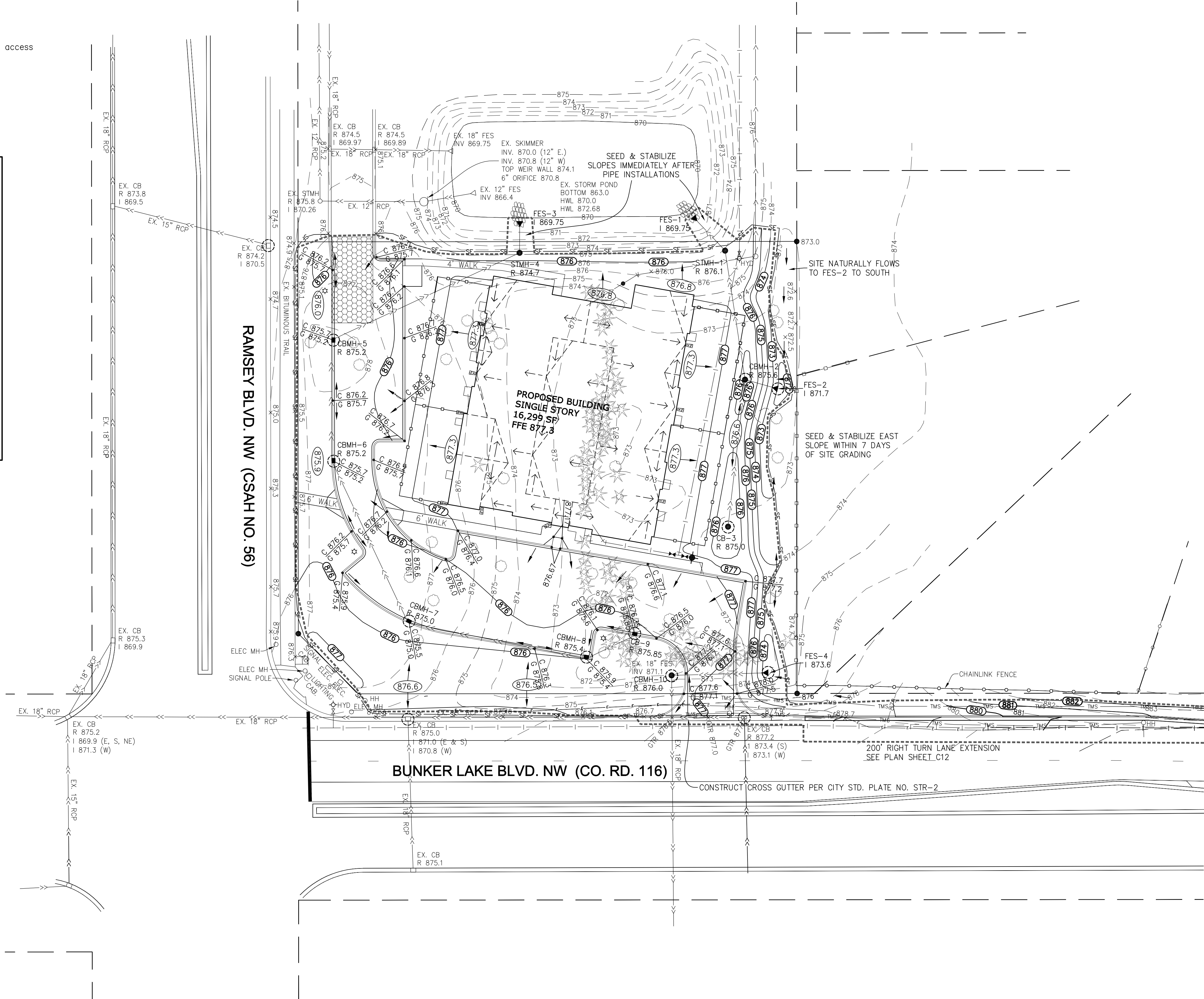
PAVEMENT SECTION

DESIGN PER CVT GEOTECHNICAL REPORT DATED 8/27/2022

LEGEND

- 900— EXISTING CONTOUR
- 864— PROPOSED CONTOUR
- ===== CONSTRUCTION LIMITS
- SF— SILT FENCE, MACHINE SLICED
- BR— BIOROLL, TYPE COMPOST LOG
- INLET PROTECTION
- 952.0 PROPOSED FINISHED GRADE ELEVATION
- C 927.7 PROPOSED CURB ELEV.
- G 927.2 PROPOSED GUTTER ELEV.
- > ROOF DRAINAGE DIRECTION
- DRAINAGE ARROW
- <— SANITARY SEWER
- |— WATERMAIN
- <<— STORM SEWER
- X 976.5 EXISTING SPOT ELEVATION
- Construction Exit
- RIPRAP CL. III PER CITY DETAIL ERO-3

0 30 60
SCALE IN FEET



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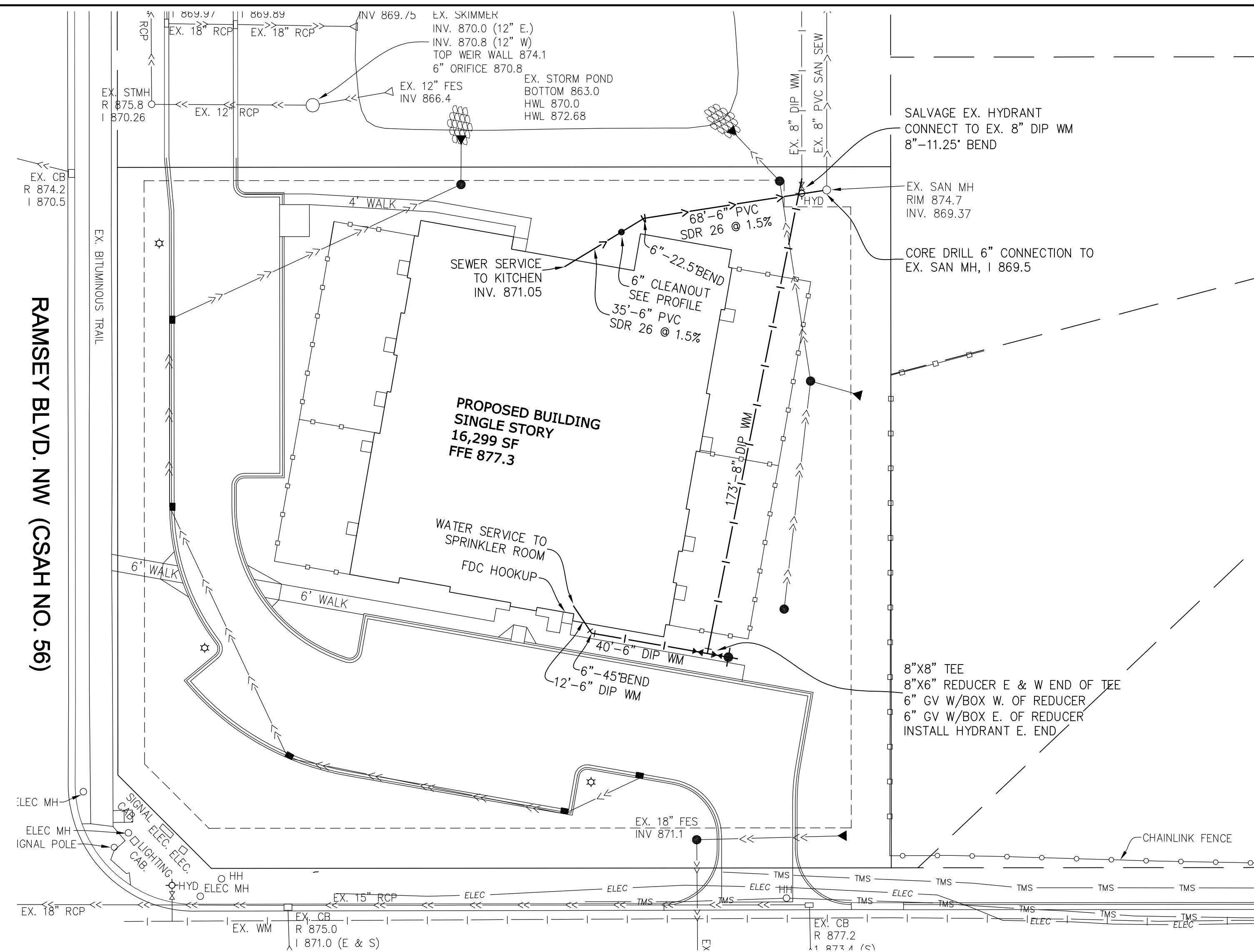
PREPARED FOR:
Jeremy Spaude
21830 S. Diamond Lake Dr.
Rogers, MN 55374
612-501-1493

SHEET TITLE & PROJECT:
Grading, Drainage, and Erosion Control Plan
Lil Explorers Childcare Center
Ramsey, MN

PROJECT NO:
202253

SHEET

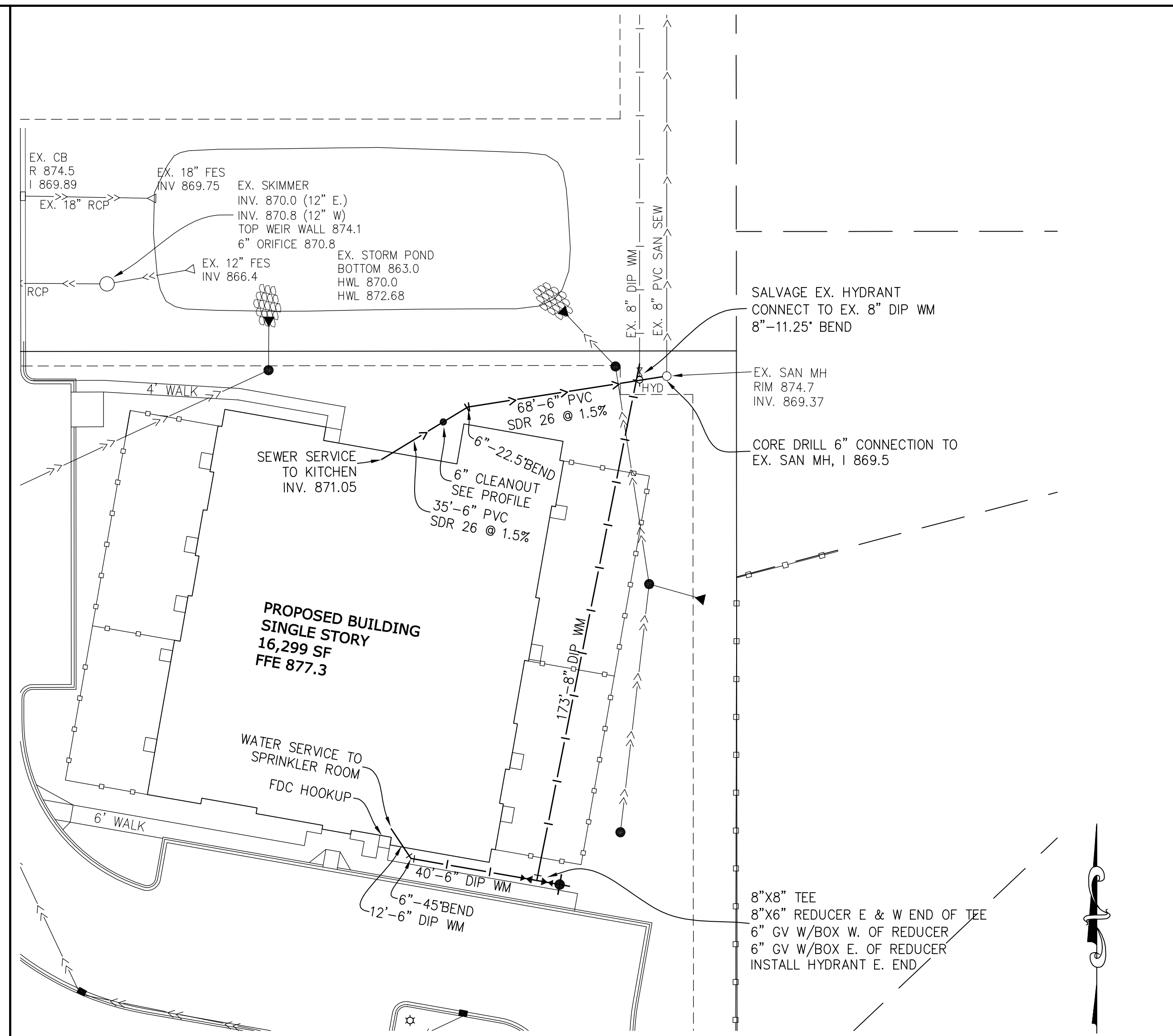
C7



WATER SERVICE

UTILITY NOTES

All water and sewer lines must conform to the City of Ramsey Engineering Design Standards.



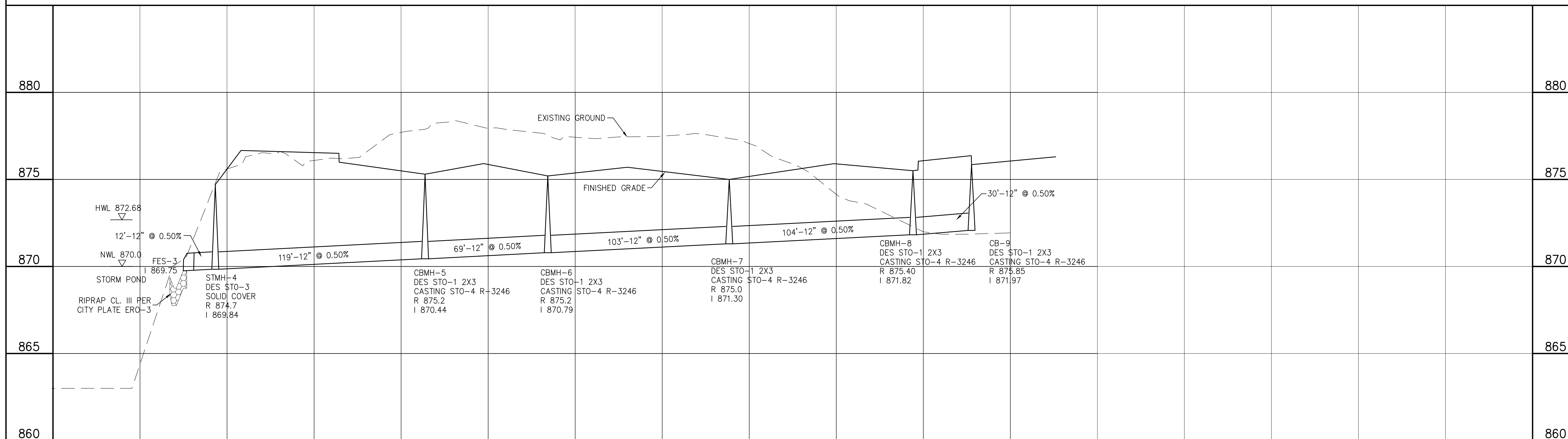
SEWER SERVICE

SCALES:
3 FT VERT. 30 FT HOR.

[illegible]



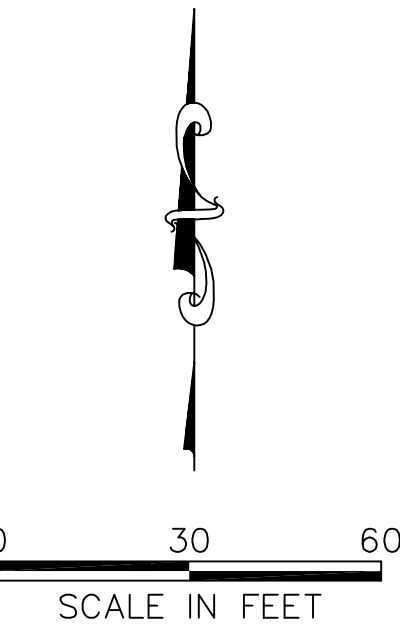
SCALES:
3 FT VERT. 30 FT HOR.



TURF ESTABLISHMENT NOTES

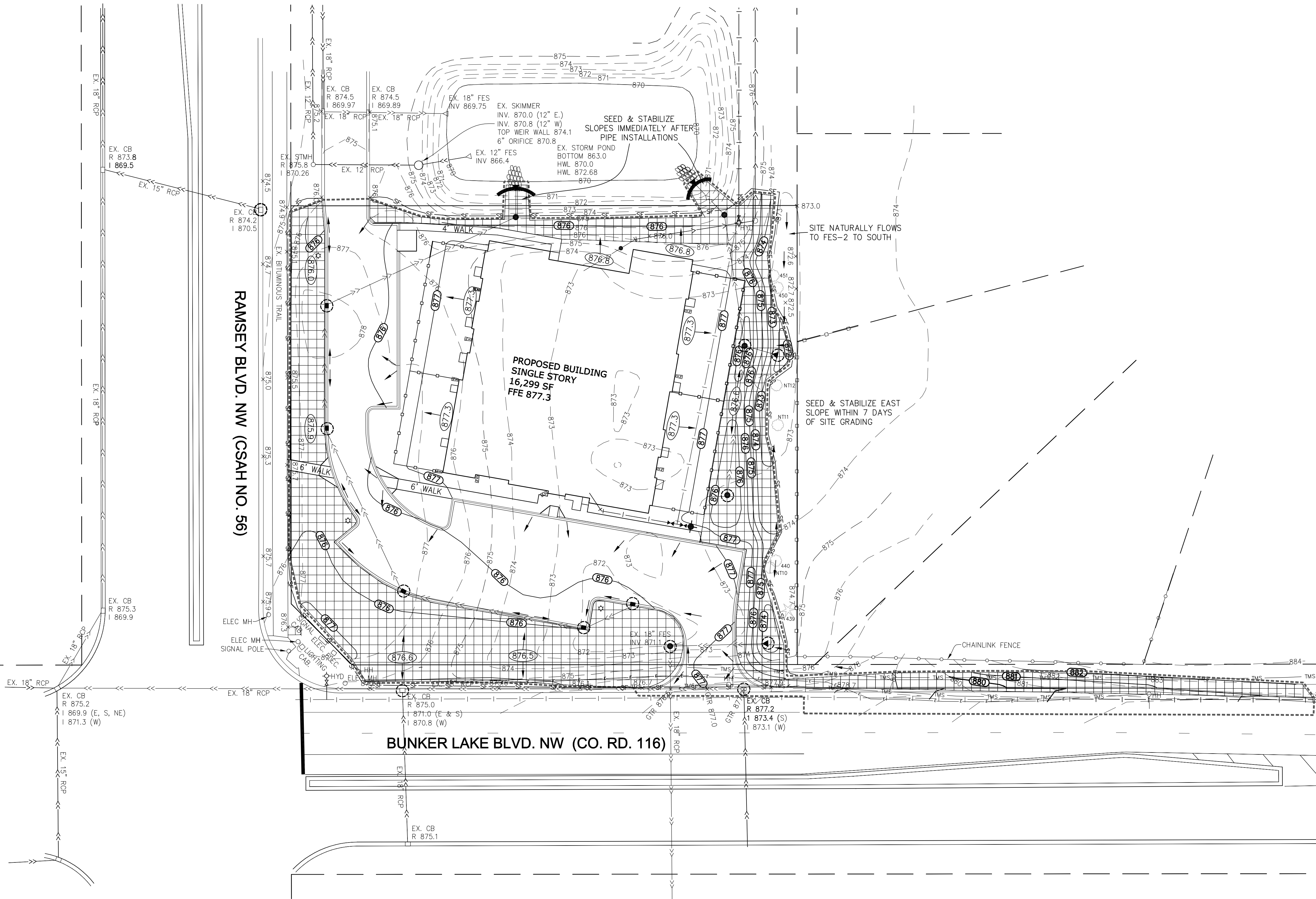
1. Unless shown otherwise, all disturbed areas shall be seeded as follows:
-Boulevard and non-sodded areas adjacent to building - MnDOT Seed Mixture 25-131
-Areas below pond HWL - MnDOT Seed Mixture 33-261
2. Stabilized seeded areas a shown with Erosion Control Blanket category 3.
3. Locations adjacent to the building that will be regularly mowed will be sodded.
4. Modify final stabilization as necessary to match landscaping plans.

EROSION CONTROL BLANKET
CATEGORY 3



LEGEND

- 900 — EXISTING CONTOUR
— 864 — PROPOSED CONTOUR
- - - - - CONSTRUCTION LIMITS
— SF — SILT FENCE, MACHINE SLICED
○ INLET PROTECTION
○ PROPOSED FINISHED GRADE ELEVATION
C 927.7 PROPOSED CURB ELEV.
G 927.2 PROPOSED GUTTER ELEV.
—> ROOF DRAINAGE DIRECTION
—> DRAINAGE ARROW
—> SANITARY SEWER
—> WATERMAIN
—> STORM SEWER
X 976.5 EXISTING SPOT ELEVATION
CONSTRUCTION EXIT
COMPOST LOG



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Curt Kallio
Curtiss J. Kallio, Lic. No. 26909 11/2/2022
Date

BY	REVISION	DATE

PREPARED FOR:

Jeremy Spaude
21830 S. Diamond Lake Dr.
Rogers, MN 55374
612-501-1493

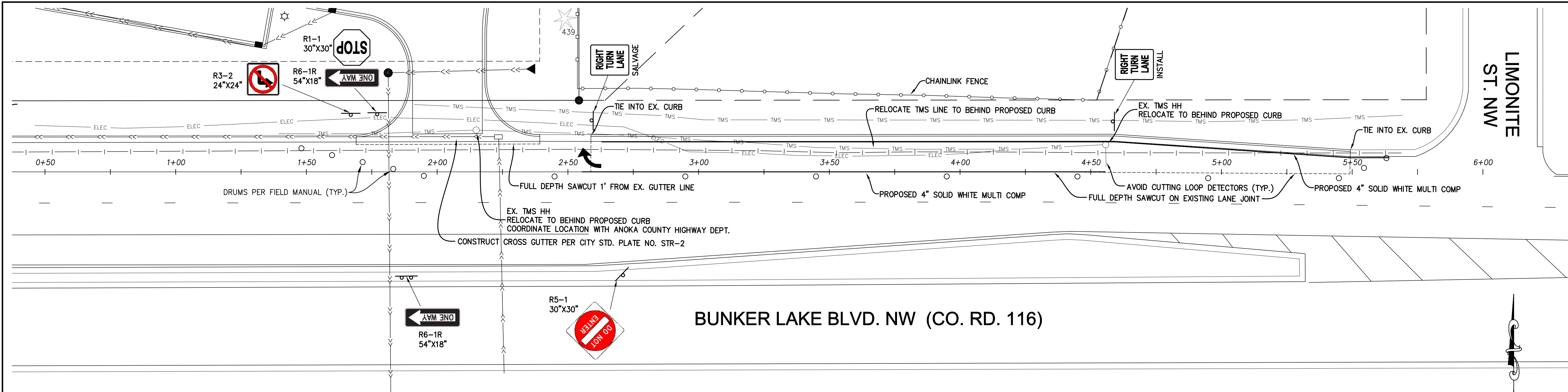
SHEET TITLE & PROJECT:

Turf Establishment Plan

Lil Explorers Childcare Center
Carver, MN

PROJECT NO:
202253

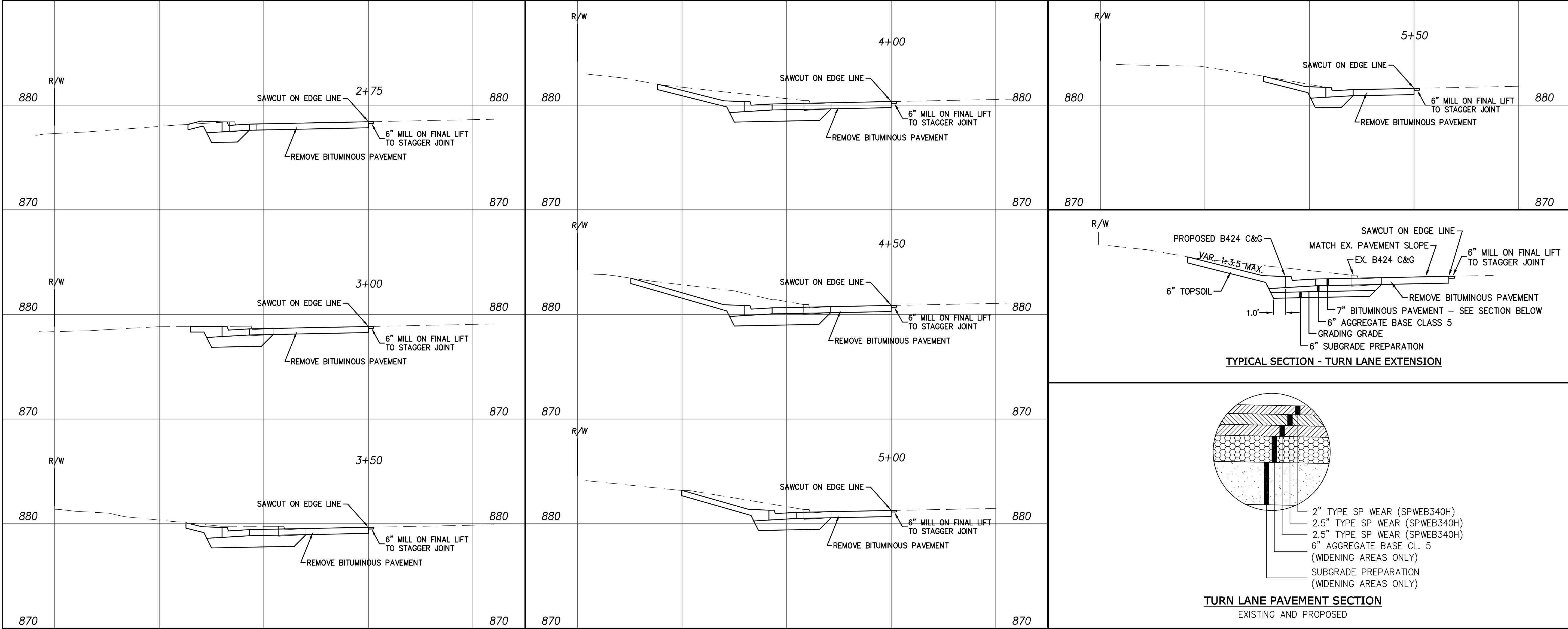
SHEET
C11



200 FEET RIGHT TURN LANE EXTENSION

TRAFFIC CONTROL STAGING

1. Lane closure, shoulder closure, and partial right turn lane closure per field manual – 3 days maximum for removal of existing curb and grading. Ramp adjacent to lane immediately after bituminous removal and place barrels on gravel.
2. Maintain longitudinal drop offs per MnDOT Field Manual 6K-7. If depth of excavation is greater than 1 foot and drop offs are within 8 feet of traffic, temporary barrier is required.
3. After ramping drop offs, move barrels to edge of bituminous and open to traffic until ready for curb and gutter
4. Repeat shoulder and partial right turn lane closure for curb and gutter and bituminous paving.



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Curtis J. Kallio
Curtis J. Kallio, Lic. No. 26809

11/2/2022
Date

BY	REVISION	DATE

PREPARED FOR:

Jeremy Spaupe
21830 S. Diamond Lake Dr.
Rogers, MN 55374
612-501-1493

SHEET TITLE & PROJECT:

Right Turn Lane Extension
Lil Explorers Childcare Center
Ramsey, MN

PROJECT NO:

202253

SHEET

C12



LAND SURVEYING
& ENGINEERING

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Chaska, MN 55318
612-418-6828

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Just Kallio
Curtiss J. Kallio, Lic. No. 26809
11/2/2022
Date

BY	REVISION	DATE

PREPARED FOR:
Jeremy Spaude
21830 S. Diamond Lake Dr.
Rogers, MN 55374
612-501-1493

SHEET TITLE & PROJECT:
City Standard Plates
Lil Explorers Childcare Center
Ramsey, MN

PROJECT NO:
202253

SHEET

C13

UPHILL
DOWNHILL
FILTHER FABRIC
POST
IMBED 6"
FABRIC ANCHORAGE TRENCH BACKFILL WITH TAMPED NATURAL SOIL
MINIMUM TRENCH 6" wide by 6" deep
INSTALL AS PER FILTER FABRIC MANUFACTURER'S RECOMMENDATIONS

SILT FENCE DETAIL
NO SCALE

APPROVED:
1 - 2016

CITY PLATE No. ERO-1

STANDARD DETAILS:
SILT FENCE

DEFLECTOR PLATE
OVERFLOW CENTER OF FILTER ASSEMBLY
OVERFLOW TOP OF CURB BOX
10" FILTER ASSEMBLY
CURB
CG 3067
HIGH FLOW FABRIC (MIRAFI FF101)

INLET PROTECTION - WIMCO OR EQUAL
N.T.S.

NOTE:
THIS INLET PROTECTION SHALL BE USED IMMEDIATELY FOLLOWING CURB & GUTTER CONSTRUCTION. INLET PROTECTION SHALL REMAIN INSTALLED AND MAINTAINED UNTIL ALL HOME CONSTRUCTION IS COMPLETE.

APPROVED:
1 - 2016

CITY PLATE No. ERO-2

STANDARD DETAILS:
INLET PROTECTION

SECTION B-B
SECTION A-A
PLAN
NOTE: NOT TO SCALE

NOTES:
1. ON SLOPES 4:1 OR GREATER, ANCHOR OR STRAIGHT DISKED STRAW MULCH, SEEDING NETTING, GABRIC, OR MATTING SUCH AS EXCELSIOR SHALL BE USED TO STABILIZE DISTURBED SOILS. THESE EXPOSED SOILS MUST BE STABILIZED IMMEDIATELY AFTER GRADING OF SOIL IS COMPLETE.
2. A SKIRTING OF EROSION CONTROL FABRIC OR MULCH MUST BE USED TO PROTECT OUTLETS AS ILLUSTRATED REGARDLESS OF SLOPE.
3. RIP RAP IS CLASS III PLACED 18" THICK.
4. FOR PIPE GREATER THAN 48" DIAMETER OR 58" SPAN, QUANTITY OF GEOTEXTILE FABRIC AND RIP RAP WILL BE HANDLED IN A CASE BY CASE MANNER.
5. GEOTEXTILE FABRIC SHALL COVER THE BOTTOM AND SIDES OF THE AREA EXCAVATED FOR THE RIP RAP MATERIAL.

RIP RAP AT RCP OUTLETS			
DIA. OF PIPE (IN.)	L (FT.)	GEOTEXTILE 18" DEPTH RIP RAP (SQ. YD.)	GEOTEXTILE 18" DEPTH RIP RAP (CU. YD.)
12	8	19.9	4.4
15	8	25.8	6.4
18	10	25.6	6.1
21	10	27.4	7.1
24	12	33.4	9.2
27	12	35.2	9.9
30	14	41.6	12.1
36	16	50.5	14.3
42	18	57.8	16.2
48	20	66.5	22.2

RIP RAP AT RCP-A OUTLETS			
SPAN (IN.)	L (FT.)	GEOTEXTILE 18" DEPTH RIP RAP (SQ. YD.)	GEOTEXTILE 18" DEPTH RIP RAP (CU. YD.)
27	10	25.6	6.1
36	14	33.2	9.2
43	16	50.5	14.3
51	18	57.5	16.9
58	20	65.2	19.8

APPROVED:
9 - 2016

CITY PLATE No. ERO-3

STANDARD DETAILS:
RIP-RAP

MINIMUM - 50'
MINIMUM 6" DEPTH
1"-2" WASHED ROCK
ENTRANCE WIDTH AS REQUIRED

NOT TO SCALE

APPROVED:
1 - 2016

CITY PLATE No. ERO-5

STANDARD DETAILS:
ROCK CONSTRUCTION ENTRANCE

WOOD MARKER AT ALL SERVICES MINIMUM OF 2' ABOVE GROUND LINE AND MARKED WITH GREEN PAINT.
WOOD MARKER AT ALL SERVICES MINIMUM OF 2' ABOVE GROUND LINE AND MARKED WITH GREEN PAINT.
MAY REQUIRE A RISER AT THE END TO GET SEWER OUT OF THE WATER TABLE.

MAIN 13' DEEP OR LESS
GROUND LINE
PLUG
SDR-26 PVC PIPE (TYP.)
ADAPTER
22 1/2" BEND
WYE AT 10 OR 2 O'CLOCK POSITION
MAIN MORE THAN 13' DEEP
GROUND LINE
PLUG
SDR-26 PVC PIPE (TYP.)
ADAPTER
22 1/2" BEND
WYE AT 10 OR 2 O'CLOCK POSITION
LENGTH VARIES

NOTES:
1. 10 GAGE SOLID COPPER TRACER WIRE IS REQUIRED WITH ALL SEWER LINES
2. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE.
3. TRACER WIRE ARE TO END IN STRUCTURES, AT FINISHED GRADE ON ALL SERVICES AND STUBS.

APPROVED:
4 - 2016

CITY PLATE No. SEW-3

STANDARD DETAILS:
SANITARY SEWER SERVICE

TOP VIEW
SIDE VIEW
SANITARY SEWER
STORM SEWER
NOTES:
1) SHEETS ARE 2 INCHES BY 4 FEET BY 8 FEET
2) SURFACE PREPARATION SHALL BE SMOOTH AND ROCK FREE
3) JOINTS WILL BE OVERLAPPED BY 4 FEET
4) POLYSTYRENE INSULATION OR APPROVED EQUAL
5) INSULATION REQUIRED WHERE PIPE SEPARATION IS < 2 FEET

APPROVED:
3 - 2022

CITY PLATE No. SEW-6

STANDARD DETAILS:
SANITARY SEWER INSULATION

RECTANGULAR
CASTING
WRAP OUTSIDE OF RINGS WITH WATER TIGHT PRODUCT
WALLS TO BE PRECAST SECTION OR CONCRETE MANHOLE BLOCK.
PRECAST OPENINGS AS REQUIRED
SLOPE 1" PER FOOT
24" X 36"
3"
3'-6" X 4'-6"
MAX. 4'-0"

CIRCULAR
CASTING
WRAP OUTSIDE OF RINGS WITH WATER TIGHT PRODUCT
WALLS TO BE PRECAST SECTION OR CONCRETE MANHOLE BLOCK.
PRECAST OPENINGS AS REQUIRED
SLOPE 1" PER FOOT
27" DIA.
3"
Min. 5'-3"
MAX. 4'-0"

NOTES:
1. MANHOLE INVERT SHALL SLOPED TO PROVIDE A SMOOTH FLOW FROM INLET TO OUTLET
2. CONCRETE BASE SHALL BE 6" POURED IN PLACE OR 5" PRECAST SLAB.
3. CONCRETE ADJUSTING RINGS TO BE INSTALLED MAX 7-2" RINGS, MIN 2-2" RINGS
4. GROUT BETWEEN RINGS SHIMS SHALL BE METAL, CONCRETE OR PLASTIC
5. INSPECTION OF MANHOLE REQUIRED BEFORE BACKFILLING
6. A 10 GAUGE SOLID COPPER TRACER WIRE IS REQUIRED WITH ALL STORM LINES.
7. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE
8. STEPS ARE REQUIRED IF STRUCTURE FROM THE CASTING TO THE INVERT IS GREATER THAN 4 FEET
9. TRACER WIRES ARE TO END IN STRUCTURES, AT FINISHED GRADE ON ALL SERVICES AND STUBS

APPROVED:
4 - 2007

CITY PLATE No. STO-1

STANDARD DETAILS:
CATCH BASIN

SHALLOW STORM SEWER MANHOLE OR CATCH BASIN
CONE
CIRCULAR
CASTING
RAP OUTSIDE OF RINGS WITH WATER TIGHT PRODUCT
WALLS TO BE PRECAST
PRECAST OPENINGS AS REQUIRED
SLOPE 1" PER FOOT
24" - 27"
4'-0" MAX
5'-2"
MAX. 4'-0"
27" DIA.
3"
3'-7"
MAX. 4'-0"

NOTES:
1. MANHOLE INVERT SHALL BE SLOPED TO PROVIDE A SMOOTH FLOW FROM INLET TO OUTLET.
2. CONCRETE BASE SHALL BE 6" POURED IN PLACE OR 5" PRECAST SLAB.
3. CONCRETE ADJUSTING RINGS TO BE INSTALLED MAX 7-2" RINGS, MIN 2-2" RINGS.
4. GROUT BETWEEN RINGS
5. SHIMS USED FOR LEVELING SHALL BE METAL OR CONCRETE.
6. A 10 GAUGE SOLID COPPER TRACER WIRE IS REQUIRED WITH ALL SEWER LINES.
7. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE
8. TRACER WIRED ARE TO END IN STRUCTURES, AT FINIHED GRADE ON ALL SERVICES AND STUBS.

APPROVED:
6 - 2008

CITY PLATE No. STO-2

STANDARD DETAILS:
STORM AREA INLET

STANDARD DETAIL
SECTION A-A
GROUT BOTTOM TO SLOPE TOWARD PIPE AS SHOWN BY ARROWS
FORM 1/2 PIPE SECTION OF LARGEST DIAMETER PIPE
CASTING PER PLAN
WRAP OUTSIDE OF RINGS WITH WATER TIGHT PRODUCT
SHIMS USED FOR LEVELING SHALL BE METAL, CONCRETE OR PLASTIC
WALLS TO BE CONSTRUCTED OF PRECAST SECTIONS. JOINTS SHALL BE CONSTRUCTED WITH CONFINED O-RING GASKETS.
CONCRETE SLAB
GROUT FLOW LINE AS SHOWN ABOVE
CONCRETE ADJUSTING RINGS MAX. 7-2" RINGS TO BE INSTALLED MIN. 2-2" RINGS TO BE INSTALLED GROUT BETWEEN RINGS
ALL INTERIOR JOINTS SHALL BE GROUTED TO A SMOOTH FINISH
STEPS AS PER STANDARD PLATE 4180J OR DETAILS
MANHOLE INVERT SHALL BE SLOPED TO PROVIDE SMOOTH FLOW FROM INLET TO OUTLET
GROUT DOG HOUSE
16" O.C.
VARIABLE
4'-0"

NOTES:
1. MANHOLE INVERT SHALL SLOPED TO PROVIDE A SMOOTH FLOW FROM INLET TO OUTLET
2. INSPECTION OF MANHOLE REQUIRED BEFORE BACKFILLING
3. ALL INLET INVERTS TO BE 0.10 ABOVE OUTLET INVERTS UNLESS OTHERWISE NOTED
4. A 10 GAUGE SOLID COPPER TRACER WIRE IS REQUIRED WITH ALL STORM LINES.
5. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE
6. STEPS ARE REQUIRED IF STRUCTURE FROM THE CASTING TO THE INVERT IS GREATER THAN 4 FEET
7. TRACER WIRES ARE TO END IN STRUCTURES, AT FINISHED GRADE ON ALL SERVICES AND STUBS

APPROVED:
1 - 2016

CITY PLATE No. STO-3

STANDARD DETAILS:
STORM MANHOLE

STANDARD CATCHBASIN CASTING
NOTE: SURMOUNTABLE CURB & GUTTER
1. CATCH BASIN CASTING SHALL BE NEENAH R-3067 WITH GRATED BACK (BICYCLE SAFE) OR APPROVED EQUAL.
2. FOR CATCH BASINS ADJACENT TO RADIUS, USE NEENAH R-3246R OR APPROVED EQUAL.
NOTE: B 618 CURB & GUTTER
1. CATCH BASIN CASTING SHALL BE NEENAH R-3246R OR APPROVED EQUAL.

APPROVED:
7 - 2016

CITY PLATE No. STO-4

STANDARD DETAILS:
STORMWATER CASTING

