Grimes Planning and Zoning Commission

Grimes Community Complex
410 SE Main Street, Room 202
Grimes, Iowa 50111
Phone | 515.986.4050
www.grimesiowa.gov

Mission Statement
The mission of Grimes City Government is to provide excellent/exceptional city services and facilities in a financially responsible and community-friendly manner through a high performing city team that result in adding value to resident's lives.

Commission Members | Scott Almeida, Russ Lickteig, Craig Patterson, Danielle Smid, Courtney Strutt Todd
Council Liaison | Andrew Borcherding

Planning and Zoning Commission November 1, 2022
In Person at Grimes Community Complex, 410 SE Main Street, Room 202

Any person wishing to speak at the meeting will need to attend in person. Below is the Zoom information for those who wish to listen in on the meeting only.

Join Zoom Meeting
https://us06web.zoom.us/j/89709371170?pwd=VmMvMWVSRk5tZFFLdmh1L2R0OHQrUT09

Meeting ID: 897 0937 1170

Passcode: 1234

GENERAL AGENDA ITEMS

1. Call to Order
2. Roll Call: Scott Almeida, Russ Lickteig, Craig Patterson, Danielle Smid, Courtney Strutt Todd, Council Liaison Andrew Borcherding
3. Approval of the Agenda
4. Approval of the Previous Minutes

PUBLIC AGENDA ITEMS

1. Project # 22-1035: Brookside Village – Site Plan
2. Project # 22-1036: Brookside Village Plat 1 – Final Plat
3. Project # 22-1037: Slim Chickens – Site Plan Amendment
4. Project # 21-1009: Grimes Plex – Site Plan
5. General Regulations Amendment Discussion #4

REPORTS

1. Department Update
2. Council Liaison Update
3. Old Business
4. New Business

ADJOURNMENT

101 NE Harvey Street, Grimes, Iowa 50111 | P: 515.986.3036

This meeting of the Grimes Planning and Zoning Commission was called to order Tuesday, October 4, 2022 at 5:30 P.M.

Roll Call: Present: Scott Almeida, Russ Lickteig, Craig Patterson (via Zoom)

Staff: Alex Pfaltzgraff, Molly Mannel, Rachel Greving

Absent: Danielle Smid, Courtney Strutt-Todd, Council Liaison: Andrew Borcherding

A. GENERAL AGENDA ITEMS

1. APPROVAL OF THE AGENDA

Motion by Lickteig, Second by Patterson, to approve the agenda
Roll Call: Ayes-All; Nays-0 Motion passes: 3-0

2. APPROVAL OF THE MINUTES

Motion by Lickteig, Second by Patterson, to approve the minutes from the September 22, 2022 meeting
Roll call: Ayes-All: Nays-0 Motion passes: 3-0

B. PUBLIC AGENDA ITEMS

Project #22-1035: Brookside Village Plat 1 – Preliminary Plat

Staff member Mannel presents the details of the plat. Located east of Highway 141 and south of Beaverbrooke Boulevard, it was recently rezoned from A-1 to PUD and R-3 Medium and lies within the Highway 141 Mixed Use Development Corridor District. The plat consists of six lots for commercial use and two lots for residential use. Staff recommends approval.

The Commission discussed the details of the trail, traffic signals, and roadways in this area.

Motion by Patterson, Second by Lickteig to approve Brookside Village Plat 1 – Preliminary Plat
Roll Call: Aye-All Nay-0 **Motion Passes 3-0**

General Regulations Amendment Discussion #3

Staff members present the details of proposed amendments to the general regulations in communication equipment, renewable energy, and adult uses.

C. **PUBLIC FORUM – None**

D. **REPORTS**

1. **Department Update – Staff provided an update on development and capital projects around the City.**
2. **Council Liaison Update – N/A**
3. **Old Business – N/A**
4. **New Business – N/A**
5. Next meeting November 1, 2022

Meeting is adjourned at 6:22 p.m.

_____

Chairperson Signature

_____

Clerk Signature

Project # 22-1035: Brookside Village – Site Plan

Planning & Zoning Staff Report

TO: Planning and Zoning Commission
FROM: Molly Mannel, Assistant Planner
DATE: November 1, 2022
RE: Brookside Village Plat 1 – Site Plan

GENERAL INFORMATION:

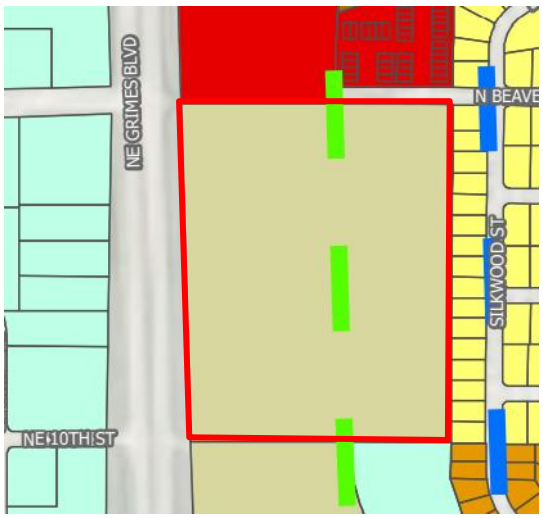
Applicant: Signature Companies, LLC

Requested Action Site Plan

Location Generally located east of Highway 141 and south of NE Beaverbrooke Blvd

SUPPORTING INFORMATION:

Location Map



Zoning Map

LAND USES & ZONING:

Location	Existing Land Use	Land Use Plan Designation	Current Zoning
Subject Site	Vacant	Mixed-Use 1/Medium Density Residential	R-3 Medium & PUD
North	Townhomes and Vacant	Mixed-Use 1	C-2
South	Vacant	Mixed-Use 1	A-1 and R-4
East	Single-Family	Low Density Residential	R-1
West	Highway 141/Commercial	Mixed-Use 1	R-4

BACKGROUND:

The applicant is requesting approval of a site plan for Brookside Village Plat 1, which will allow for the construction of a roadway connection, multi-family townhomes and apartments, and a clubhouse. The site will consist of two residential lots that will contain a total of 323 rental units. The site was previously zoned as A-1 and has now been rezoned to R-3 Medium and PUD. The site also lies within the Highway 141 Mixed Use Development Corridor District.

ANALYSIS:

Building/Elevations:

The elevations of the townhomes, apartment buildings, and clubhouse are cohesive. Each building will be primarily constructed of neutral-toned ashlar stone, board and batten, and brick. Per the Highway 141 overlay ordinance, five different architectural treatments are provided on the residential building elevations. The garages for both the townhomes and apartments will have variations in roof height and enhance the overall aesthetic of the site.

Site Layout:

The Brookside Village plat 1 site will consist of a roadway connection between NE Destination Drive and NE Beaverbrooke Boulevard. Both roadways will connect via a roundabout to Highway 141. The site will consist of two residential lots containing a total of 323 units. Four, three-story apartment buildings will be constructed on the western portion of the site. In addition, fifteen five-plex townhomes, one six-plex townhome, one ten-plex townhome, and one eleven-plex townhome will be constructed. A clubhouse for office management will feature a pool. The mail cluster box for the townhomes will be located northeast of the site, upon entering the private drive off NE Beaverbrooke Boulevard. Two wet detention ponds will assist in stormwater flow and mitigation.

Parking:

A total of 324 spaces will be provided on site. Each townhome unit will contain a two-car garage, with an additional 25 guest parking spaces. Per ordinance, 25% of apartment units shall have a coverage parking space. Fifty garages will be provided for residents living within the apartments.

Landscaping/Streetscape:
A 30-foot landscaped buffering is proposed between the east townhomes and the existing single-family homes along NE Silkwood Street. A streetscape along NE Destination Drive, extending to the south of NE Beaverbrooke Boulevard, will be planted to provide screening and enhance the neighborhood aesthetic. A tree will be planted in each yard of each townhome unit, and all lots will be required to meet the Highway 141 Mixed Use Development Corridor District landscaping standards.

Utilities:
Water is currently existing along NE Beaverbrooke Boulevard and will be stubbed down to serve the townhomes to the south. Water and sanitary sewer will be installed with the construction of NE Destination Drive and will service both the townhomes and apartments. Stormwater will be collected throughout the site, and empty in two wet detention basins to the north.

STAFF RECOMMENDATION:
Staff would recommend approval of Brookside Village Plat 1 site plan subject to any remaining staff comments.

CITY OF GRIMES

Molly Mannel
Assistant Planner

Development Services
410 SE Main St, Suite 102
Grimes, IA 50111
(515)986-4050
www.grimesiowa.gov

~~September 23, 2022~~
October 13, 2022

Signature Companies, LLC
Attn: Brian Atwood
3430 SE Destination Dr, Ste 400
Grimes, Iowa 50111

RE: Brookside Village Plat 1 Site Plan

Dear Mr. Atwood:

The Development Services Department is in receipt of a proposed Site Plan for the Brookside Village Plat 1. Based on the review of the provided submittal materials, staff have the following comments:

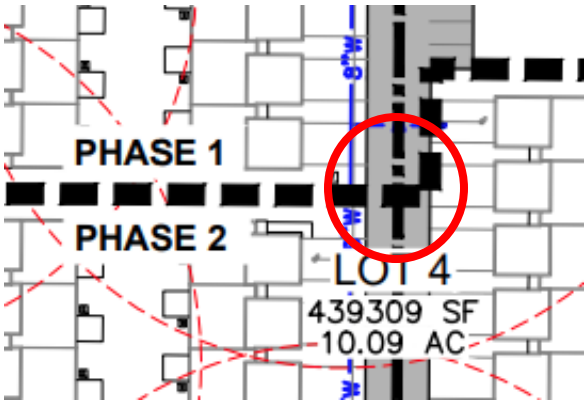
General Comments:

1. ~~Provide DNR permits for water, sanitary and stormwater.~~

2. ~~Provide Geotechnical Report.~~

3. ~~Please identify how the construction will be phased. Please provide a phasing map. Staff is reviewing how the water main will be looped and identifying fire truck accesses.~~

4. ~~Please add a turnaround at the eastern end of phase 1 for fire truck.~~



~~5. Add erosion control measures at all pond overflows.~~

~~6. Please ensure all driveways are under 10% design slope.~~

~~7. Provide spot elevations at all 6" to 3" curb transitions.~~

~~8. Label overflow paths for low points on grading plan.~~

~~9. Provided detail grading plans for all ramp areas.~~

~~10. Provide elevations for all critical crossings.~~

~~11. Please provide elevations for all buildings, clubhouse, garages, and dumpster enclosures.~~

~~12. Please provide pool details (including the deck, fence, etc. that will be installed with it). Note that these must be submitted to the state for review.~~

~~13. Please provide mailbox details.~~

14. Please ensure that the dumpster enclosures have room for both garage and recycling. Please label this in the elevations.

15. Please add a 5' sidewalk along one side of all internal private streets. This can be integral to the driveways. You may add sidewalk along the apartment side where the apartments and townhomes share a driveaway.

16. Please provide lighting cut sheets for the site.

17. Please provide a detail sheet for all site features.

18. Please provide a seeding plan.

Sheet 1:

~~1. Please include the 40% open space required under R-3 High Density Residential. Please also show the open space provided.~~

~~2. Please remove the *existing* and *proposed* as the A-1 zoning is no longer existing. Please just state that the site was previously zoned under A-1.~~

3. Please include updated addresses on a separate sheet. They are attached.

4. ~~Please remove the driveway parking calculation under townhome parking provided.~~

5. ~~Update SUDAS edition note to 2022.~~

Sheet 4

1. ~~Please update the City of Grimes Standard Notes. They are attached.~~

2. The fire hydrant coverage for the apartment buildings does not meet the requirements of the City of Grimes Fire Code Section 507.5.1. Which requires fire hydrants to be placed within 150 feet of all sides of the building as measured by the path of travel along fire apparatus access roads. Please see attached markup.

3. No fire department connections were shown for the apartment buildings. A fire hydrant shall be placed within 100 feet of the fire department connection as measured by the path of travel along the fire apparatus access road per Section 507.5.1.1 of the City of Grimes Fire Code. No parking can be in front of the FDC per Section 912.4.2. Please move the FDC and KnoxBox to the end of the apartment building, where no parking is located.

4. ~~A Knox Box will be required on each apartment building and the clubhouse per Section 506.1 of the City of Grimes Fire Code.~~

5. Note that the townhomes shown shall have fire sprinklers installed per Section 903.2 of the City of Grimes Fire Code. If the townhome rows are over 8,00 sq. ft. – they will need to be sprinkled. Staff will view developer's new site layout when submitted.

Sheet 5

1. ~~Is the pool area a place holder for grading. Otherwise, how does it connect to the clubhouse?~~

2. ~~ROW permit required for sidewalk closures.~~

Sheet 5.2

1. ~~ST-3 calls out two openings on the SE side of the structure.~~

2. ~~Please label sidewalk along NE Destination Drive.~~

Sheet 5.3

1. ~~Please label sidewalk along NE Destination Drive.~~

Sheet 6.0

1. ~~Is the sidewalk going to be depressed through the emergency overflow of Pond 2? If so, please provide a sidewalk detail along with elevations.~~

2. Please ensure the sidewalk is depressed for the overflow area. Please provide a detail.

Sheet 6.1

1. ~~Please verify 100-YR overflow goes to the pond instead of the north access driveway.~~

2. ~~Delete squares on east side of detention pond.~~

3. ~~Is the sidewalk going to be depressed through the emergency overflow of Pond 1? If so, please provide a sidewalk detail along with elevations.~~

4. ~~The drainage area between Building 15 and Building 26 is showing under 2%. Please provide a subdrain in the area or meet the minimum of 2%.~~

5. ~~The drainage area behind Building 2 is showing under 2%. Please provide a subdrain in the area or meet the minimum of 2%.~~

6. Please ensure the sidewalk is depressed for the overflow area. Please provide a detail.

Sheet 6.2

1. ~~The drainage area behind Building 16 is showing under 2%. Provide a subdrain in the area or meet the minimum of 2%.~~

Sheet 6.3

1. ~~The drainage area behind Building 2, 3, 17/24, and 16/25 is showing under 2%. Please provide a subdrain in the area or meet the minimum of 2%.~~

2. Buildings 3, 4, 5, 6, 8, 9, 16, and 19 GFEs are below calculated MPE.

Sheet 6.4

1. ~~The drainage area behind Building 19 and 18 is showing under 2%. Provide a subdrain in the area or meet the minimum of 2%.~~

Sheet 6.5

1. ~~The drainage area behind Building 19/22, 18/23, 5, and 4 is showing under 2%. Please provide a subdrain in the area or meet the minimum of 2%.~~

Sheet 6.6

1. ~~The drainage area behind Building 6, 8, 20/21, and 9 is showing under 2%. Please provide a subdrain in the area or meet the minimum of 2%.~~

2. ~~Staff suggests changing the grading behind building 9 to create a small basin with an intake. Current grading could possibly create a maintenance issue in the wintertime.~~

Sheet 6.7

1. ~~Verify grades on Detail 'A' are ADA compliant for building stalls and west ramp. Ramp grades still appear to be over 8.33%.~~

2. ~~Verify grades on Detail 'F' are ADA compliant.~~

3. ~~Verify grades on Detail 'I' are ADA compliant.~~

Sheet 6.8

1. Label turning space on Detail 'Q'.

2. ~~Verify grades on Detail 'O' are ADA compliant.~~

3. ~~Label turning space on Detail 'P'.~~

4. ~~Verify grades on Detail 'S' are ADA compliant.~~

Sheet 7.0

1. ~~Include perimeter controls for entire graded area, and apartment/townhomes piece.~~

2. ~~Include inlet protection at the inlet side of culverts and flared end sections.~~

3. ~~Include controls around the stockpiles to meet topsoil preservation requirements~~

4. ~~Include inlet protection along the existing intakes on NE Beaverbrooke Blvd in the NE corner of the site.~~

5. ~~Do stabilization quantities include temporary stabilization measures?~~

6. ~~On the quantities tab, please add the following quantities:~~

    a. ~~Dumpster, portable restroom, construction entrance, staging area, and rip rap~~

7. Please verify that a 1.5-inch water service will be sufficient for a fire sprinkler system in the buildings. If the buildings are over 8,000 gross square feet of area, a sprinkler system is required. Depending on how the units are built will determine the type of fire system required. You could either need a NFPA 13 System or a NFPA 13D system for anything over 8,000 square feet. (Are the buildings going to be built to the IBC or IRC standard?) For buildings of four townhomes or more, please increase the water lines to each townhome to a 2-inch line, per *Section 9-3-10 Tapping Mains* ordinance.

Sheet 7.1

1. ~~Include perimeter controls for entire graded area, and apartment/townhomes piece.~~

2. ~~Include inlet protection at the inlet side of culverts and flared end sections.~~

3. ~~Include controls around the stockpiles to meet topsoil preservation requirements~~

4. ~~Include inlet protection along the existing intakes on NE Beaverbrooke Blvd in the NE corner of the site.~~

5. ~~Do stabilization quantities include temporary stabilization measures?~~

Sheet 8.0

1. ~~Please verify a 24" pipe can go into the side of a SW-505.~~

Sheet 8.1

1. ~~Callout storm sewer along east property going into the ponds.~~

2. ~~Add critical crossing information~~.

3. ~~Information is missing for the L-49 network.~~

Sheet 8.2

1. ~~Adjust ST-8 label to not cover storm sewer pipe.~~

2. ~~Ensure all beehive intakes are at low points between the buildings.~~

3. ~~Add critical crossing information.~~

Sheet 8.3

1. ~~Ensure all beehive intakes are at low points between the buildings.~~

2. ~~Add critical crossing information.~~

Sheet 9.0

1. ~~Finish Sanitary and Water main quantities.~~

2. ~~Specify all valves in pavement shall be slide type and all curb stops in pavement shall have a two-piece pentagon nut style cap.~~

3. ~~Please move the trees out of the detention pond overflow in the NW basin.~~

Sheet 9.7

1. ~~Remove label "Private Storm Sewer. Refer to Brookside Village Site Plan for Details."~~

Sheet 9.8

1. ~~Callout Valve near blowoff in profile view.~~

Sheet 10

1. The landscaping plan shows plantings that may obstruct access to shown and subsequently needed fire hydrants. Clear space of 5 feet is required around all sides of fire hydrants per Section 507.5.5 of the City of Grimes Fire Code. Please verify the expected growth of the trees is not going to encroach upon the hydrant radius of those shown on the plan. The highlighted radius shows a tree planted within 5 feet of a hydrant. Please see attached markup.

2. ~~Please add mulch and shrub landscaping to the roundabout.~~

Sheet 10.2

1. How does the developer plan on keeping some of the existing, healthy trees to the east? Please ensure the smaller swale size is calculated within the SWMP.

2. ~~Please rename the R-4 High to R-3 High.~~

SWPPP

1. ~~Fill out and Sign City of Grimes SWPPP Checklist~~

2. ~~Use legal description and or address for project location~~

3. ~~Include site supervisor contact information once available~~

4. ~~Include SWPPP monitoring contact information once available~~

5. ~~Update City inspector information to Kendra Daniels, 1700 SE Destination Drive~~

6. ~~Update State of Iowa Contact information to Mark Lasnek as Joe Griffin has retired~~

7. ~~Include updated City of Grimes Code of Ordinances~~

8. ~~Include dewatering protocols from GP2~~

9. ~~Under Final Stabilization, include that final stabilization is reached when the site has 70% vegetative cover over 100% of the site~~

10. Include construction schedule once available

11. Include signed contractor/subcontractor certification statements for all contractors/sub-contractors prior to preforming any work onsite.

12. Be sure to include final plan set within SWPPP once available.

SWMP

1. ~~Basin 2 does not meet CPv allowable release rate.~~

2. ~~Pond 1 hydrograph: Orifice B does not match the site plan. Please fix either SP or SWMP.~~

3. ~~Pond 2 hydrograph: Orifice B and C do not match the site plan. Please fix either SP or SWMP.~~

4. ~~Hydrograph reports, if the intent is to use hickenbottoms on both basins, then model perf risers in the hydrographs.~~

5. ~~Pipe Capacity Spreadsheets: Provide spreadsheets for 10-yr and 100-yr events. City of Grimes requires storm sewer to convey the 10-yr event.~~

6. ~~Section 8 Future Analysis. Detention requirements are to detain and release equal to or less than the natural condition; and be less than the existing 5-yr release rate. L-19 will likely need to increase in size.~~

7. ~~Section 8: Provide outlet protection calculations for public storm sewer.~~

8. ~~Provide MPE calculations: MPE calculations are required to verify FFEs.~~

9. Section 8: Provide outlet protection calculations for ST-1. ST-1 on sheet 14 of the CDs does not outlet into a manhole.

10. ~~Public Storm Sewer Pipe Spreadsheets: 100-year analysis is missing.~~

11. Provide MPE calculations for Building #15, and overflow elevations for Building #16 & #25.

Elevations

1. Please submit three elevation packages as stated in the development agreement. Each package should vary by color, siding texture, and brick/masonry.

2. Please identify the five architectural treatments that are used for the apartments and townhomes, as required by the overlay ordinance. Attached is a treatment list.

3. Please provide the material percentage breakdown for each side of the apartment, townhome, and clubhouse buildings.

4. ~~Two elevations for the apartment buildings were included in the submittal. It appears there's only a slight difference in the window trim on the front and left elevations. Please clarify which sheet is showing the accurate elevation.~~

5. ~~Please provide an architectural break in the garage roof lines.~~

6. Please provide a gate detail for the dumpster enclosure. Note that per the ordinance, recycling must be provided. Please ensure that the enclosure is large enough to accommodate for recycling.

7. Please include the five architectural treatment son the clubhouse as well.

Please provide a letter addressing all comments on this comment letter and/or state what was modified on the site plan to address said comments.

SITE PLAN SUBMITTAL SCHEDULE:

SUBMITTAL DATE:	~~September 29, 2022~~ October 20, 2022 **(1 PDF of Site plan with Elevation Plan included)**
PLANNING & ZONING:	November 1, 2022, at 5:30 at the Grimes City Hall
COUNCIL MEETING:	November 22, 2022, at 5:30 at the Grimes City Hall

Please feel free to contact me at mmannel@grimesiowa.gov or at (515) 986-4050 if you have any questions or need additional information.

Sincerely,

Molly Mannel
Assistant Planner

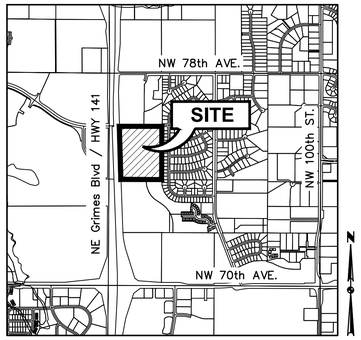
SITE PLAN FOR:

BROOKSIDE VILLAGE PLAT 1

GRIMES, IOWA

VICINITY MAP

NOT TO SCALE



GRIMES, IOWA

OWNER/APPLICANT

SIGNATURE COMPANIES, LLC
3430 SE DESTINATION DR, STE 400
GRIMES, IOWA 50111
CONTACT: BRIAN ATWOOD
EMAIL: BRIAN@SIGNATURECOMPANIESLLC.COM
PH: (515) 371-3669

ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
CONTACT: JARED MURRAY
EMAIL: JAREDM@CDA-ENG.COM
PH. (515) 369-4400

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
CONTACT: CHARLIE MCGLOTHLEN
EMAIL: CHARLIEM@CDA-ENG.COM
PH. (515) 369-4400

ARCHITECT

SIGNATURE COMPANIES, LLC
3430 SE DESTINATION DR, STE 400
GRIMES, IOWA 50111
CONTACT: TJ OLSON
EMAIL: TJ@SIGNATURECOMPANIESLLC.COM
PH: (605) 275-5888

BENCHMARKS

1. SET BM – BURY BOLT ON HYDRANT AT THE NORTHWEST CORNER OF SITE
   ELEVATION=967.14
2. SET BM – BURY BOLT ON HYDRANT @ SE CORNER OF 1ST STREET & GATEWAY DRIVE
   ELEVATION=940.44

PROJECT SITE ADDRESS

1371 & 1360 NE PRIMROSE LANE

DATE OF SURVEY

02/17/2022

CONSTRUCTION SCHEDULE

ANTICIPATED START DATE = FALL 2022
ANTICIPATED FINISH DATE = FALL 2026

SUBMITTAL DATES

FIRST SUBMITTAL:	09/06/2022
SECOND SUBMITTAL:	09/29/2022
THIRD SUBMITTAL:	10/20/2022

ZONING

PREVIOUS ZONING:
A-1: AGRICULTURAL DISTRICT

CURRENT ZONING:
PUD: PLANNED UNIT DEVELOPMENT W/ UNDERLYING R-3 HIGH AND C-2 LOCATED WITHIN THE HIGHWAY 141 MIXED USE CORRIDOR.

R-3: MED (MEDIUM DENSITY FAMILY DWELLING DISTRICT) LOCATED WITHIN THE HIGHWAY 141 MIXED USE CORRIDOR

DEVELOPMENT AGREEMENT: BK. 19185, PG. 592-607

DEVELOPMENT SUMMARY

PUD W/ UNDERLYING R-3: HIGH DENSITY RESIDENTIAL DISTRICT

MINIMUM LOT AREA:
NO MINIMUM LOT DIMENSION APPLY. POSTAGE STAMP LOT DEVELOPMENT IS PERMITTED

MINIMUM LOT WIDTH = 200 FT

SETBACKS:
FRONT YARD = 30 FT
REAR YARD = 30 FT
SIDE YARD
1 STORY = 20 FT EACH SIDE / 40 FEET TOTAL
2-3 STORIES = 20 FT EACH SIDE / 40 FEET TOTAL

MAX BUILDING HEIGHT:
APARTMENT (FOUR STORIES) = 50 FT MAX
TOWNHOME (THREE STORIES) = 40 FT MAX

BUILDING SEPARATION = 20 FT

DENSITY = 289 UNITS/14.49 AC
= 19.94 UNITS/AC (21 UNITS/AC MAX)

R-3 MED DENSITY RESIDENTIAL DISTRICT

MINIMUM LOT AREA
NO MINIMUM LOT DIMENSIONS APPLY. POSTAGE STAMP LOT DEVELOPMENT IS PERMITTED

MINIMUM LOT WIDTH = 200 FT

SETBACKS:
FRONT YARD = 30 FT
REAR YARD = 30 FT
SIDE YARD
1 STORY = 10 FT EACH SIDE / 20 FEET TOTAL
2-3 STORIES = 15 FT EACH SIDE / 30 FEET TOTAL

MAX BUILDING HEIGHT = 35 FT

BUILDING SEPARATION = 20 FT

DENSITY = 34 UNITS/4.22 AC
= 8 UNITS/AC (8 UNITS/AC MAX)

OPEN SPACE:
TOTAL AREA = 18.71 ACRES (815,002 SF)
OPEN SPACE REQUIRED = 326,001 SF (40%)
OPEN SPACE PROVIDED = 350,190 SF (43%)

APARTMENT SUMMARY:
4-APARTMENT BUILDINGS (50 PLEX) = 200 UNITS
EACH 50-PLEX = (11)STUDIO, (11)1-BED, (22)2-BED, (6)3-BED
TOTAL UNITS PROVIDED = 200 UNITS

APARTMENT PARKING REQUIRED:
1.7 SPACES/ 1-BED/STUDIO UNIT +
2.0 SPACES/ 2 AND 3 BED UNIT = 373.6 SPACES
(25% OF UNITS TO HAVE COVERED SPACE)
TOTAL REQUIRED = 374 SPACES
(50 GARAGES REQUIRED)

APARTMENT PARKING PROVIDED:
ON-STREET PARKING = 324 SPACES
GARAGES = 50 SPACES
TOTAL PROVIDED = 374 SPACES

TOWNHOME SUMMARY:
15-TOWNHOME BUILDINGS (5 PLEX) = 75 UNITS
1-TOWNHOME BUILDING (6 PLEX) = 6 UNITS
2-TOWNHOME BUILDINGS (10 PLEX) = 20 UNITS
2-TOWNHOME BUILDINGS (11 PLEX) = 22 UNITS
TOTAL UNITS PROVIDED = 123 UNITS

TOWNHOME PARKING REQUIRED:
2 SPACES/UNIT + = 246 SPACES
1 GUEST SPACE/5 UNITS = 24.6 SPACES
TOTAL REQUIRED = 271 SPACES

TOWNHOME PARKING PROVIDED:
GUEST PARKING = 25 SPACES
GARAGES = 246 SPACES
TOTAL PROVIDED = 271 SPACES

INDEX OF SHEETS

NO.	DESCRIPTION
1.0	COVER SHEET
2.0-2.1	DETAILS
3.0	SITE SURVEY / DEMOLITION PLAN
4.0	SITE LAYOUT / HYDRANT COVERAGE / PHASING PLAN
5.0-5.3	DIMENSION PLAN
6.0-6.8	GRADING PLAN
7.0-7.1	EROSION AND SEDIMENT CONTROL PLAN
8.0-8.3	UTILITY PLAN
9.0-9.2	LANDSCAPE PLAN

LEGAL DESCRIPTION

PARCEL '2022-49' AND PARCEL '2022-50' AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 19066, PAGE 861, BEING A PART OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 80 NORTH, RANGE 25 WEST OF THE FIFTH PRINCIPAL MERIDIAN IN THE CITY OF GRIMES, POLK COUNTY, IOWA AND CONTAINING 31.68 ACRES (1,379,831 SQUARE FEET).

THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

PARKLAND DEDICATION

REQUIRED
123 TOWNHOME UNITS
X 1.954 INDIVIDUALS/UNIT
X 0.005 ACRES/INDIVIDUAL = 1.20 ACRES

200 APARTMENTS UNITS
X 1.615 INDIVIDUALS/UNIT
X 0.005 ACRES/INDIVIDUAL = 1.62 ACRES
TOTAL REQUIRED = 2.82 ACRES

UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

GENERAL LEGEND

PROPOSED

PROPERTY BOUNDARY
SECTION LINE
CENTER LINE
RIGHT OF WAY
BUILDING SETBACK
PERMANENT EASEMENT
TEMPORARY EASEMENT
TYPE SW-501 STORM INTAKE
TYPE SW-502 STORM INTAKE
TYPE SW-503 STORM INTAKE
TYPE SW-505 STORM INTAKE
TYPE SW-506 STORM INTAKE
TYPE SW-512 STORM INTAKE
TYPE SW-513 STORM INTAKE
TYPE SW-401 STORM MANHOLE
TYPE SW-402 STORM MANHOLE
FLARED END SECTION
TYPE SW-301 SANITARY MANHOLE
STORM/SANITARY CLEANOUT
WATER VALVE
FIRE HYDRANT ASSEMBLY
SIGN
DETECTABLE WARNING PANEL
WATER CURB STOP
SANITARY SEWER
SANITARY SERVICE
STORM SEWER
STORM SERVICE
WATERMAIN WITH SIZE
WATER SERVICE
SAWCUT (FULL DEPTH)
SILT FENCE
USE AS CONSTRUCTED (UAC)
MINIMUM PROTECTION ELEVATION MPE

EXISTING

SANITARY MANHOLE
WATER VALVE BOX
FIRE HYDRANT
WATER CURB STOP
WELL
STORM SEWER MANHOLE
STORM SEWER SINGLE INTAKE
STORM SEWER DOUBLE INTAKE
FLARED END SECTION
DECIDUOUS TREE
CONIFEROUS TREE
DECIDUOUS SHRUB
CONIFEROUS SHRUB
ELECTRIC POWER POLE
GUY ANCHOR
STREET LIGHT
POWER POLE W/ TRANSFORMER
UTILITY POLE W/ LIGHT
ELECTRIC BOX
ELECTRIC TRANSFORMER
ELECTRIC MANHOLE OR VAULT
TRAFFIC SIGN
TELEPHONE JUNCTION BOX
TELEPHONE MANHOLE/VAULT
TELEPHONE POLE
GAS VALVE BOX
CABLE TV JUNCTION BOX
CABLE TV MANHOLE/VAULT
MAIL BOX
BENCHMARK
SOIL BORING
UNDERGROUND TV CABLE
GAS MAIN
FIBER OPTIC
UNDERGROUND TELEPHONE
OVERHEAD ELECTRIC
UNDERGROUND ELECTRIC
FIELD TILE
SANITARY SEWER W/ SIZE
STORM SEWER W/ SIZE
WATER MAIN W/ SIZE

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE, URBANDALE, IA 50322
PH: (515) 369-4400
PROJECT NO. 2201.009

REFER TO GEOTECH EXPLORATION REPORT NO. 222105BVS COMPLETED BY CMT ON OCTOBER 3, 2022 FOR GEOTECHNICAL REQUIREMENTS.

THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2 AND CITY OF GRIMES GRADING PERMIT. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

THE 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

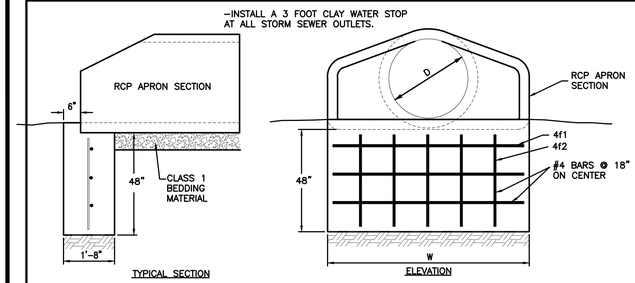
JARED M. MURRAY 23496 LICENSED PROFESSIONAL ENGINEER IOWA

JARED M. MURRAY, P.E. — DATE

LICENSE NUMBER 23496
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023
PAGES OR SHEETS COVERED BY THIS SEAL:
ALL SHEETS

PRELIMINARY NOT FOR CONSTRUCTION

FILE: R:\2022\2201009\DWG\SITE\220109-COV-SET-DEMO.DWG
PLOT DATE: 10/20/2022 10:23 PM
PLOTTED BY: JARED MURRAY TECH
COMMENT: ENG.

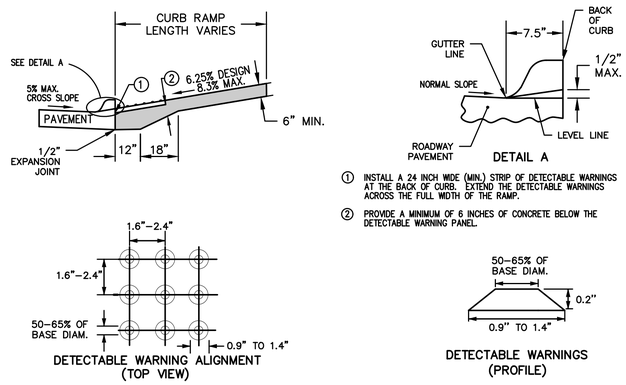


REINFORCING BAR LIST

D	W	Mark	Size	Length	Count
12"	2'-4"	4f1	4	2'-0"	3
		4f2	4	3'-8"	2
15"	2'-10"	4f1	4	2'-6"	3
		4f2	4	3'-8"	2
18"	3'-5"	4f1	4	3'-1"	3
		4f2	4	3'-8"	3
24"	4'-6"	4f1	4	4'-2"	3
		4f2	4	3'-8"	3
30"	5'-7"	4f1	4	5'-3"	3
		4f2	4	3'-8"	4
36"	6'-8"	4f1	4	6'-4"	3
		4f2	4	3'-8"	5
42"	7'-3"	4f1	4	6'-11"	3
		4f2	4	3'-8"	5

D	W	Mark	Size	Length	Count
48"	7'-10"	4f1	4	7'-6"	3
		4f2	4	3'-8"	6
54"	8'-5"	4f1	4	8'-1"	3
		4f2	4	3'-8"	6
60"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
66"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
72"	10'-0"	4f1	4	9'-8"	3
		4f2	4	3'-8"	7
78"	10'-7"	4f1	4	10'-3"	3
		4f2	4	3'-8"	7
84"	11'-1"	4f1	4	10'-9"	3
		4f2	4	3'-8"	8

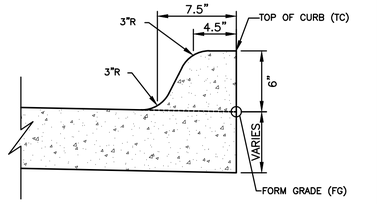
RCP APRON FOOTING DETAIL
NOT TO SCALE



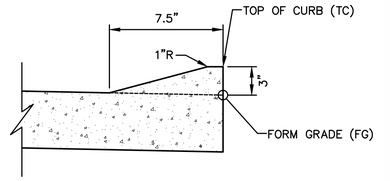
① INSTALL A 24 INCH WIDE (MIN.) STRIP OF DETECTABLE WARNINGS AT THE BACK OF CURB. EXTEND THE DETECTABLE WARNINGS ACROSS THE FULL WIDTH OF THE RAMP.

② PROVIDE A MINIMUM OF 6 INCHES OF CONCRETE BELOW THE DETECTABLE WARNING PANEL.

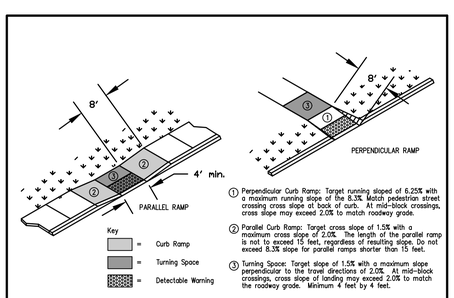
DETECTABLE WARNING DETAIL
NOT TO SCALE



6" PCC INTEGRAL CURB
NOT TO SCALE



INTEGRAL 3" ROLLED CURB
NOT TO SCALE

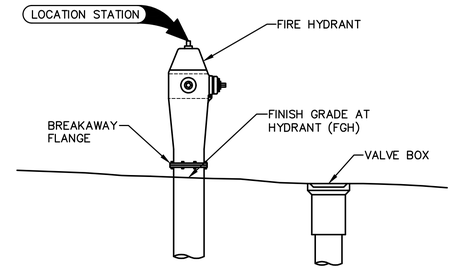


① Perpendicular Curb Ramp: Target running slope of 6.25% with a maximum running slope of the 8.3%. Match pedestrian street crossing cross slope at back of curb. At mid-block crossings, cross slope may exceed 2.0% to match roadway grade.

② Parallel Curb Ramp: Target cross slope of 1.5% with a maximum cross slope of 2.0%. The length of the parallel ramp is not to exceed 15 feet, regardless of resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.

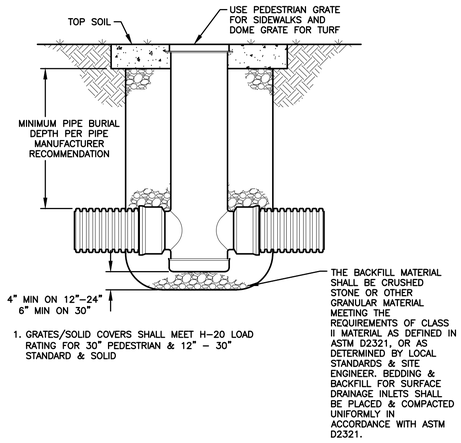
③ Turning Space: Target slope of 1.5% with a maximum slope perpendicular to the travel directions of 2.0%. At mid-block crossings, cross slope of landing may exceed 2.0% to match the roadway grade. Minimum 4 feet by 4 feet.

CURB RAMPS
NOT TO SCALE



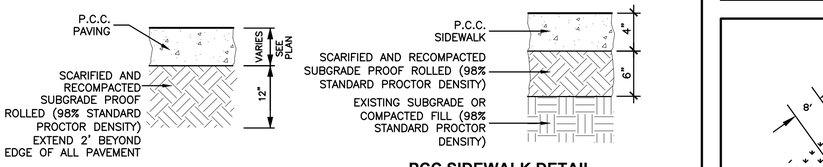
EXAMPLE: STA 10+00, 42' LT
HYDRANT ASSEMBLY
FGH = 987.6

HYDRANT ASSEMBLY SPOT ELEVATION REFERENCE DETAIL
NOT TO SCALE



1. GRATES/SOLID COVERS SHALL MEET H–20 LOAD RATING FOR 30" PEDESTRIAN & 12" – 30" STANDARD & SOLID

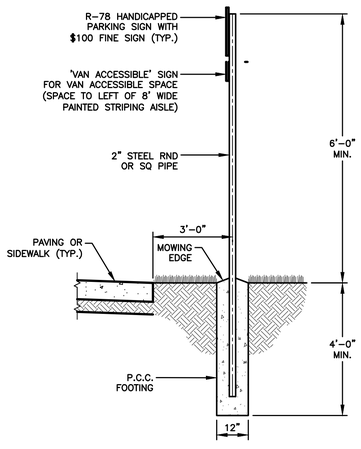
HDPE INTAKE
NOT TO SCALE



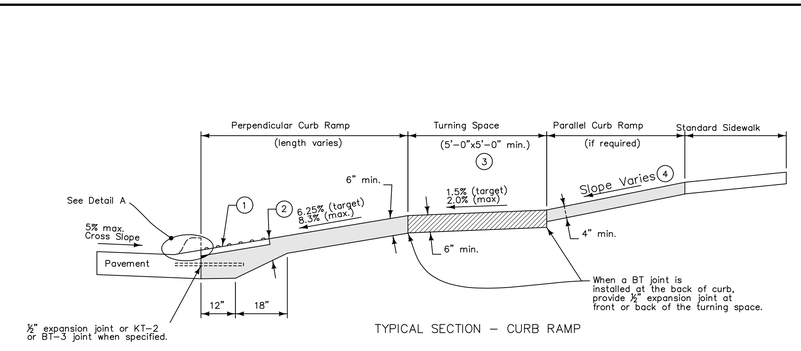
PCC PAVEMENT DETAIL

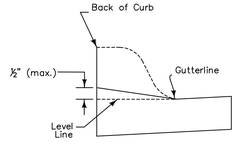
PCC SIDEWALK DETAIL

PCC PAVEMENT AND SIDEWALK
NOT TO SCALE



ACCESSIBLE PARKING SIGN
NOT TO SCALE





① Provide a minimum 2 foot width of detectable warning surfaces in the direction of pedestrian travel across the full width of the curb ramp or turning space, exclusive of curbs or flares.

② Provide a minimum of 6 inches of concrete below the detectable warning panel.

③ Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. Minimum 5 feet by 5 feet.

④ If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.

The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.

GENERAL SIDEWALK AND CURB RAMP DETAILS
NOT TO SCALE

DATE	REVISIONS
10/20/2022	
09/29/2022	3RD SUBMITTAL
09/06/2022	2ND SUBMITTAL
	1ST SUBMITTAL

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: JMM | TECH: JDS

CIVIL DESIGN ADVANTAGE

BROOKSIDE VILLAGE PLAT 1
DETAILS

GRIMES, IOWA

2.0

2201.009

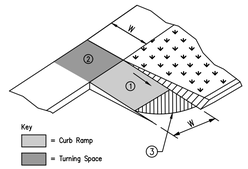
FILE: H:\2022\2201009\DWG\SITE\2201009-CIV-SET-DSHO.DWG
DATE: 10/20/2022 TIME CUTTED: 10/20/2022 1:03:20 PM
PLOTTED BY: JARED MURRAY TECH:
COMMENT:
ENG:

① Perpendicular Curb Ramp: Target running sloped of 6.25% with a maximum running slope of the 8.3%.

② Turning Space: Target slope of 1.5% with a maximum slope perpendicular to the travel directions of 2.0%. At mid-block crossings, cross slope of landing may exceed 2.0% to match the roadway grade. Min. 5'x5'.

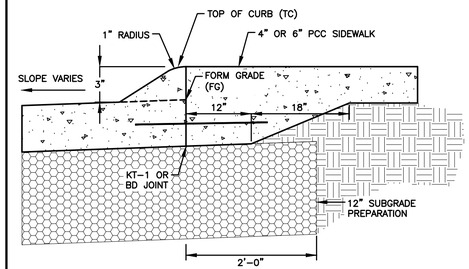
③ Provide an area of special shaping at the bottom of the ramp to provide a smooth transition to the gutterline. 2% maximum slope in any direction.

④ The minimum pavement depth for ramps and landings shall be 6-inches.

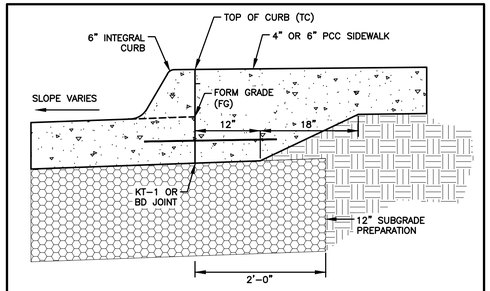


PERPENDICULAR CURB RAMP @ CLASS 'A' INTEGRAL CURB

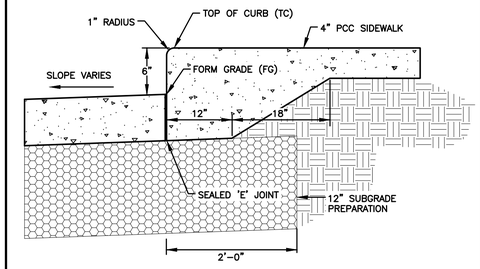
NOT TO SCALE



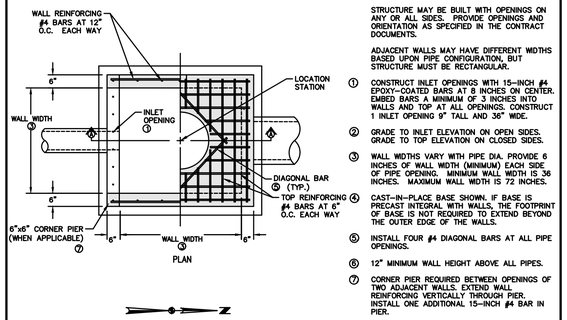
3" ROLLED CURB AND SIDEWALK



6" INTEGRAL CURB AND SIDEWALK



CLASS 'A' 6" INTEGRAL CURB AND SIDEWALK



STRUCTURE MAY BE BUILT WITH OPENINGS ON ANY OR ALL SIDES. PROVIDE OPENINGS AND ORIENTATION AS SPECIFIED IN THE CONTRACT DOCUMENTS.

ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.

① CONSTRUCT INLET OPENINGS WITH 15-INCH #4 EPOXY-COATED BARS AT 8 INCHES ON CENTER. EMBED BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS. CONSTRUCT 1 INLET OPENING 9" TALL AND 36" WIDE.

② GRADE TO INLET ELEVATION ON OPEN SIDES. GRADE TO TOP ELEVATION ON CLOSED SIDES.

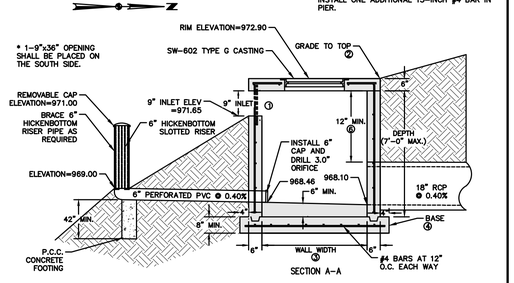
③ WALL WIDTHS VARY WITH PIPE DIA. PROVIDE 6 INCHES OF WALL WIDTH (MINIMUM) EACH SIDE OF PIPE OPENING. MINIMUM WALL WIDTH IS 36 INCHES. MAXIMUM WALL WIDTH IS 72 INCHES.

④ CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

⑤ INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.

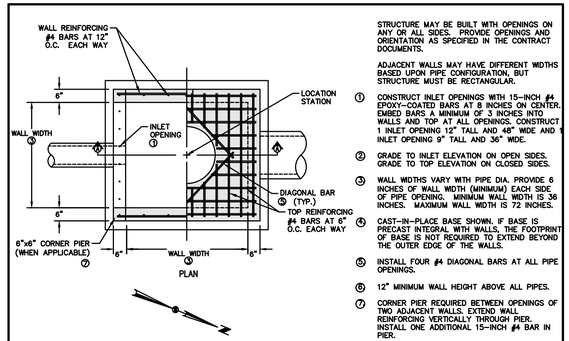
⑥ 12" MINIMUM WALL HEIGHT ABOVE ALL PIPES.

⑦ CORNER PIER REQUIRED BETWEEN OPENINGS OF TWO ADJACENT WALLS. EXTEND WALL REINFORCING VERTICALLY THROUGH PIER. INSTALL ONE ADDITIONAL 15-INCH #4 BAR IN PIER.



4'X4' MODIFIED SW-513 INTAKE (ST-1)

NOT TO SCALE



STRUCTURE MAY BE BUILT WITH OPENINGS ON ANY OR ALL SIDES. PROVIDE OPENINGS AND ORIENTATION AS SPECIFIED IN THE CONTRACT DOCUMENTS.

ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.

① CONSTRUCT INLET OPENINGS WITH 15-INCH #4 EPOXY-COATED BARS AT 8 INCHES ON CENTER. EMBED BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS. CONSTRUCT 1 INLET OPENING 12" TALL AND 48" WIDE AND 1 INLET OPENING 9" TALL AND 36" WIDE.

② GRADE TO INLET ELEVATION ON OPEN SIDES. GRADE TO TOP ELEVATION ON CLOSED SIDES.

③ WALL WIDTHS VARY WITH PIPE DIA. PROVIDE 6 INCHES OF WALL WIDTH (MINIMUM) EACH SIDE OF PIPE OPENING. MINIMUM WALL WIDTH IS 36 INCHES. MAXIMUM WALL WIDTH IS 72 INCHES.

④ CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

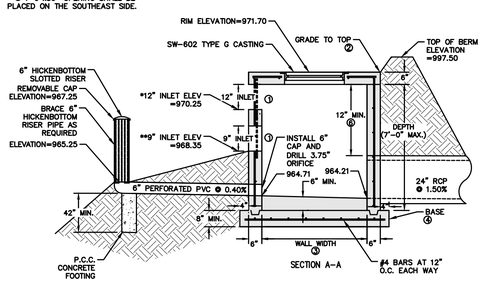
⑤ INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.

⑥ 12" MINIMUM WALL HEIGHT ABOVE ALL PIPES.

⑦ CORNER PIER REQUIRED BETWEEN OPENINGS OF TWO ADJACENT WALLS. EXTEND WALL REINFORCING VERTICALLY THROUGH PIER. INSTALL ONE ADDITIONAL 15-INCH #4 BAR IN PIER.

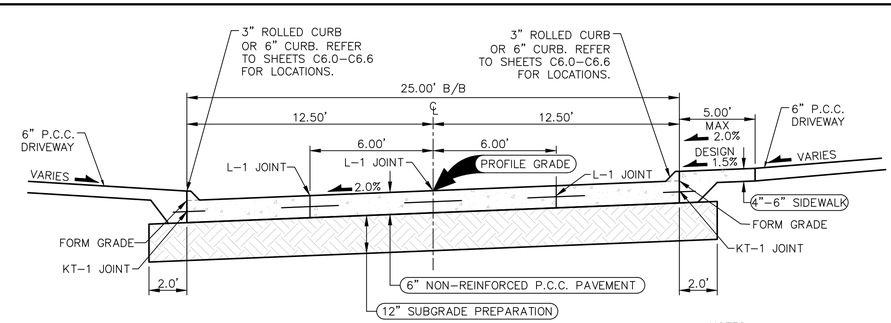
* 1-12"X48" OPENING SHALL BE PLACED ON THE SOUTHEAST SIDE.

** 1-9"x36" OPENING SHALL BE PLACED ON THE SOUTHEAST SIDE.



4'X4' MODIFIED SW-513 INTAKE (ST-3)

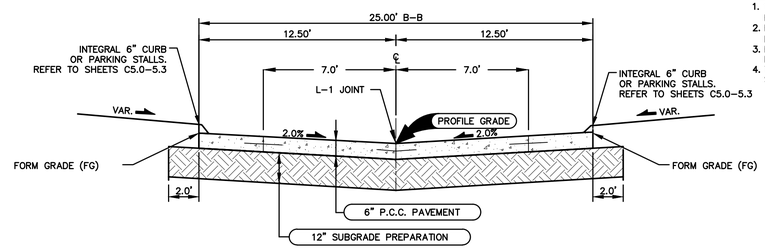
NOT TO SCALE



NOTES:
1. PREPARE SUBGRADE IN 2-6" LIFTS.
2. TYPICAL C JOINT SPACING IS 15'.

TYPICAL SECTION - 25' B/B P.C.C. ROADWAY

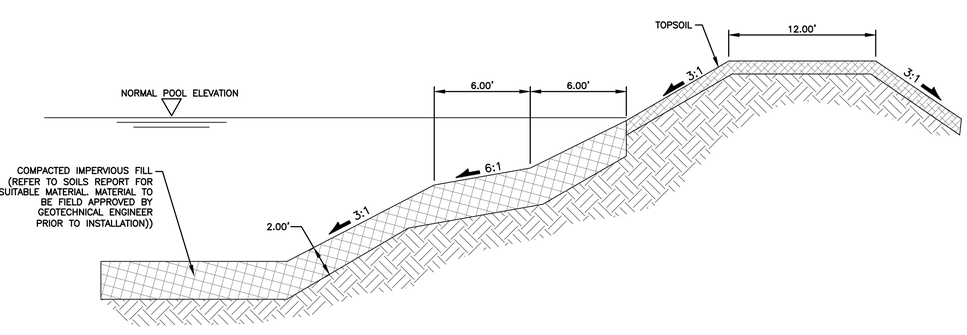
NOT TO SCALE



NOTE:
1. 12" SUBGRADE PREPARATION TO BE PREPARED IN 2 - 6" LIFTS.
2. REFER TO PLAN FOR LOCATIONS OF INTEGRAL 6" STANDARD CURB.
3. REFER TO DIMENSION PLAN FOR LOCATIONS OF TYPICAL SECTION.
4. TYPICAL TRANSVERSE JOINT SPACING IN 15 FEET

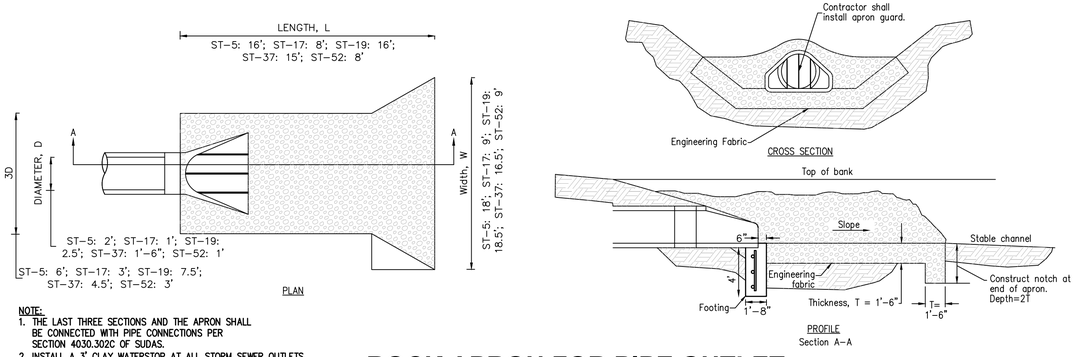
TYPICAL SECTION - 25' B/B P.C.C. ROADWAY

NOT TO SCALE



TYPICAL WET BOTTOM POND SECTION

NOT TO SCALE



NOTE:
1. THE LAST THREE SECTIONS AND THE APRON SHALL BE CONNECTED WITH PIPE CONNECTIONS PER SECTION 4030.302C OF SUDAS.
2. INSTALL A 3' CLAY WATERSTOP AT ALL STORM SEWER OUTLETS.

ROCK APRON FOR PIPE OUTLET

NOT TO SCALE

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: JMM | TECH: JDS

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

CIVIL DESIGN ADVANTAGE
GRIMES, IOWA

BROOKSIDE VILLAGE PLAT 1

DETAILS

2.1

2201.009

FILE: N:\2022\2201009\DWG\SITE\2201009-CON-DET-DEMO.DWG
PLOT DATE: 10/20/2022 10:31 PM
PLOTTED BY: JARED MURRAY
COMMENT: ENG
TECH:

General Notes:

A. Any discrepancies or conflicts found in the various parts of the construction documents shall be brought to the attention of the Architect and the Owner before proceeding with the work.

B. Furniture is provided and installed by others.

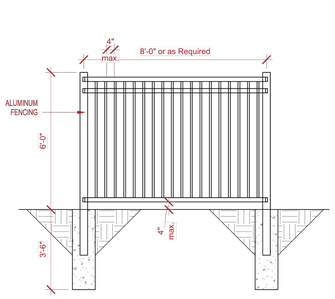
C. Written dimensions take precedence over scaled dimensions. Do not scale the drawings.

D. Contractor & Subcontractors to verify all existing conditions at the project site.

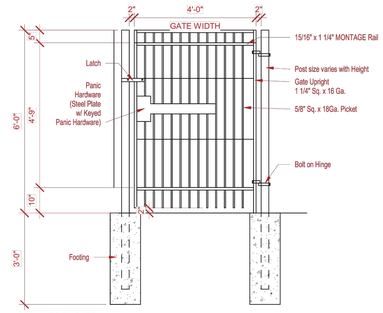
E. All materials & equipment shall be installed per manufacturers instructions.

F. Details shown are typical unless otherwise noted. Similar details apply in similar conditions.

G. Pool Contractor needs to obtain owner permit for pool and associated equipment.



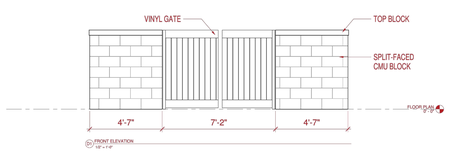
A2 Fence Details
3/8" = 1'-0"

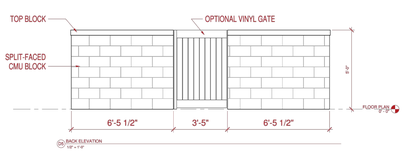


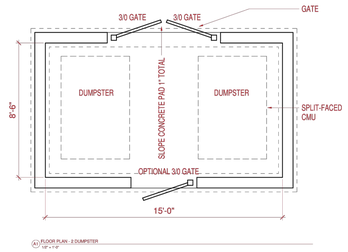
A4 POOL GATE
1/2" = 1'-0"

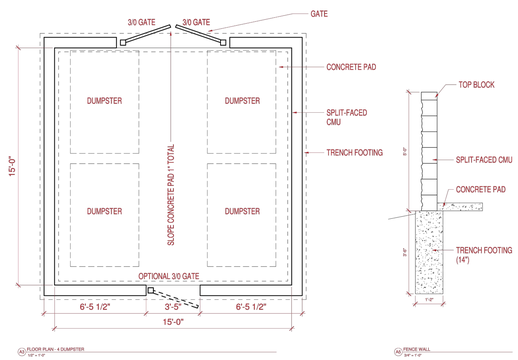
SIGNATURE COMPANIES
BROOKSIDE VILLAGE
GRIMES, IOWA
T/O
10/19/22
Checker
#101
A2.3
As indicated
FENCE DETAILS

No.	Description	Date









SIGNATURE COMPANIES
4800 E 57th Street
Sioux Falls • South Dakota
Phone: 605-275-5888
Fax: 605-275-5867
www.signaturecompaniesllc.com

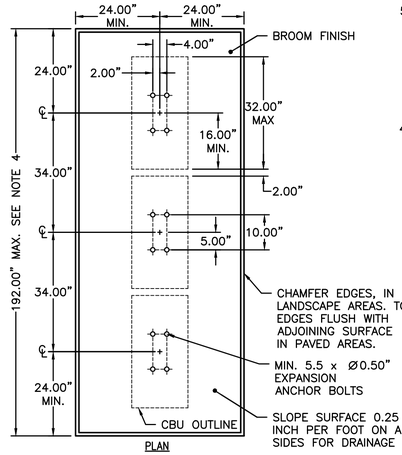
TYPICAL GARBAGE ENCLOSURE
SIOUX FALLS, SD

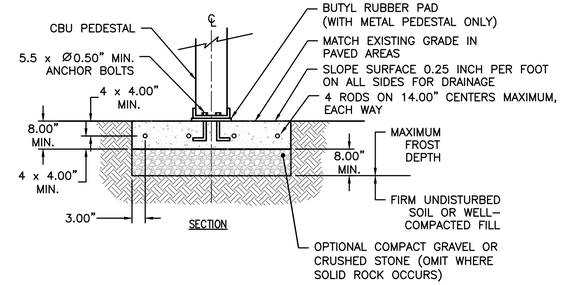
GARBAGE ENCLOSURE
15'x15'

No.	Description	Date

03/30/2022	#101
T/O	Checker

C8.1





NOTES:
1. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, CONTAIN 4% MIN. – 6% MAX. AIR ENTRAINMENT AND BE PLACED WITH A 3.50" – 4.50" SLUMP IN ACCORDANCE WITH ACI 301.
2. REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
3. EXPANSION BOLTS SHALL BE EQUIVALENT TO THE FOLLOWING PROVIDERS:
   A. HILTI KWIK BOLT (WWW.US.HILTI.COM) II–1/2" DIAMETER X 5–1/2" OVERALL LENGTH. GALVANIZED, CATALOG # 000–453–696 KB II 12–512, STAINLESS STEEL: CATALOG # 000–454–744. ENSURE THAT THE MIN. EMBEDMENT IN CONCRETE IS AT LEAST 3–1/2"
   B. ITW RAMSET REDHEAD TRUBOLT (WWW.RAMSET–REDHEAD.COM) GALVANIZED, 1/2" DIAMETER X 7" OVERALL LENGTH; CATALOG NUMBER: WS–1270G. ENSURE THAT MIN. EMBEDMENT IS CONCRETE IS AT LEAST 4–1/8".
   C. RAWL STUD (WWW.RAWL.COM) GALVANIZED, 1/2" X 5–1/2" OVERALL LENGTH; CATALOG NUMBER: 7724. ENSURE THAT MIN. EMBEDMENT IN CONCRETE IS AT LEAST 4".
4. A 3 CBU CONFIGURATION IS DEPICTED. A 2 OR 4 CBU CONFIGURATION MAY BE USED AS LONG AS THEY ARE ARRANGED IN GROUPS SUCH THAT THE OVERALL DIMENSION OF THE CONCRETE BASE DOES NOT EXCEED 16 FEET.

CLUSTER BOX UNIT (CBU) MULTIPLE UNIT DETAIL

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

CIVIL DESIGN ADVANTAGE

GRIMES, IOWA

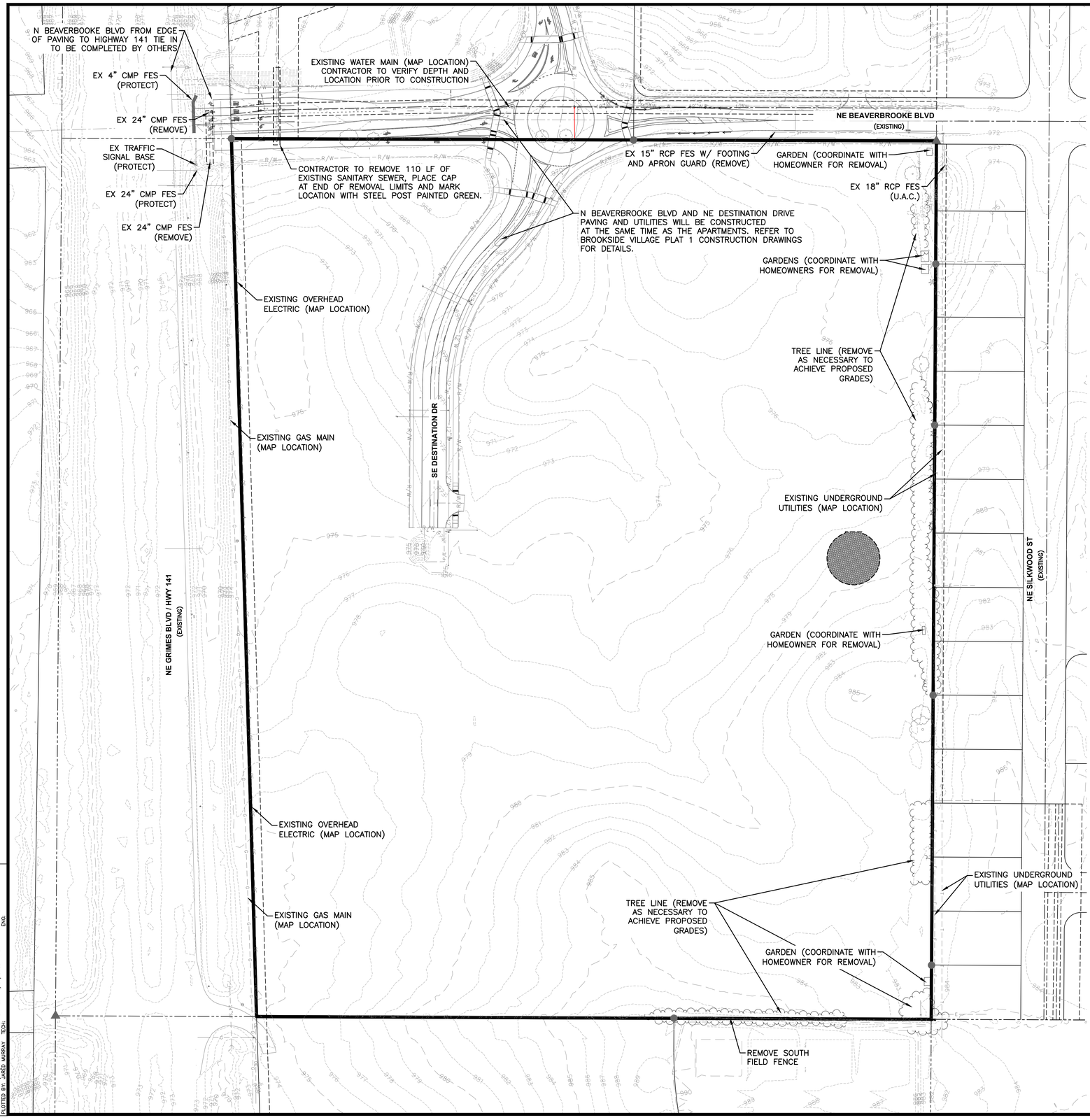
BROOKSIDE VILLAGE PLAT 1

DETAILS

2.2

2201.009

FILE: H:\2022\2201009\DWG\SITE\2201009-CDV-DET-DBAD.DWG
RELEASED: 10/20/2022 4:34:15 PM COMMENT:
PLOTTED: 10/20/2022 10:29 PM ENG:
PLOTTED BY: JARED MURRAY TECH:



DEMOLITION NOTES:

1. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER OR ENGINEER AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
2. PRIOR TO DEMOLITION, CONTRACTOR SHALL NOTIFY IN WRITING (48 HRS NOTICE) THE FOLLOWING:
   A. CITY OF GRIMES
   B. APPROPRIATE UTILITY COMPANIES
   C. CLIENT
   D. CIVIL DESIGN ADVANTAGE
   E. ARCHITECT
3. DO NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE NOTED. COORDINATE REMOVAL OR ABANDONMENT OF ALL UTILITIES WITH THE APPROPRIATE UTILITY SUPPLIER AND REGULATORY AGENCIES.
4. PROTECT EXISTING UTILITIES THAT ARE TO REMAIN. THE LOCATIONS OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLAN MAY BE PRESENT.
5. BACKFILL ALL EXCAVATIONS WITH COHESIVE MATERIAL COMPACTED TO 95% MAXIMUM STANDARD PROCTOR DRY DENSITY AND MOISTURE RANGE OF OPTIMUM MOISTURE TO 4% ABOVE OPTIMUM MOISTURE. TESTING OF BACKFILL TO BE BY A GEOTECHNICAL ENGINEER EMPLOYED BY THE OWNER. IN THE EVENT OF A TEST FAILURE, ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR.
6. FIELD VERIFY EXISTING GRADES AND LOCATION OF EXISTING UTILITIES, CONDUIT, LINES, POLES, TREES, PAVING, BUILDING AND OTHER SITE FEATURES PRIOR TO DEMOLITION AND IMMEDIATELY INFORM THE ENGINEER AND/OR OWNER OF ANY DISCREPANCIES.
7. DEMOLITION NOTES AS SHOWN ON THE PLAN ARE NOT ALL INCLUSIVE. CONTRACTOR TO ABANDON IN PLACE OR REMOVE AND DISPOSE OF ALL EXISTING SITE IMPROVEMENTS ABOVE AND BELOW GROUND TO COMPLY WITH THE GENERAL INTENT OF THIS DOCUMENT.
8. ALL CONSTRUCTION/DEMOLITION DEBRIS SHALL BE DISPOSED OF OFFSITE IN FULL COMPLIANCE WITH CURRENT ENVIRONMENTAL REGULATIONS.
9. CONSTRUCTION LIMITS SHALL BE CONFINED TO THE SITE BOUNDARY AS NOTED. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.

UTILITY WARNING:

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

BENCH MARK:

1. SET BM – BURY BOLT ON HYDRANT AT THE NORTHWEST CORNER OF SITE
   ELEVATION=967.14
2. SET BM – BURY BOLT ON HYDRANT @ SE CORNER OF 1ST STREET & GATEWAY DRIVE
   ELEVATION=940.44

ENGINEER/SURVEYOR:

CIVIL DESIGN ADVANTAGE, LLC
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
CONTACT: CHARLIE MCGLOTHLEN
EMAIL: CHARLIEM@CDA-ENG.COM
PH. (515) 369-4400

DATE OF SURVEY:

FEBRUARY 17, 2022

LEGEND:

	FOUND	SET
SECTION CORNER AS NOTED	▲	△
1/2" REBAR, YELLOW CAP #15980 (UNLESS OTHERWISE NOTED)	●	○
PLATTED BEARING & DISTANCE	P	
MEASURED BEARING & DISTANCE	M	
RECORDED BEARING & DISTANCE	R	
DEEDED BEARING & DISTANCE	D	
MINIMUM PROTECTION ELEVATION	MPE	
PUBLIC UTILITY EASEMENT	P.U.E.	
CENTERLINE		
SECTION LINE		
EASEMENT LINE		
TELEPHONE LINE	T	
CABLE TELEVISION LINE	TV	
FIBER OPTICS LINE	OF	
WATERMAIN	W	
STORM SEWER	ST	
SANITARY SEWER	S	
STREET LIGHT		
DECIDUOUS TREE		
WOOD FENCE		
GAS LINE	G	
ELECTRIC LINE	E	
OVERHEAD ELECTRIC LINE	OE	
GAS MANHOLE	G	
MONITORING WELLS	MW	
FLARED END SECTION		
TRAFFIC SIGNAL CONTROL	TR	

GAS APPARATUS	P-TANK
AIR CONDITIONER	AC
TELEPHONE PEDESTAL	T
WATER VALVE	W
FIRE HYDRANT	H
ELECTRIC TRANSFORMER	E
ELECTRIC METER BOARD	E
MAIL BOX	M
SIGN	
POWER POLE	
TELEVISION PEDESTAL	TV
SANITARY SEWER MANHOLE	S
STORM SEWER MANHOLE	ST
ROUND STORM SEWER INTAKE	
STORM SEWER INTAKE	
FLAG POLE	
SPRINKLER BOX	
BUSH	
CONIFEROUS TREE	
OVERHEAD LIGHT	
HANDICAPPED PARKING	
ROOF DRAIN	RD
TRAFFIC LIGHT	
SEPTIC TANK	S
YARD LIGHT	

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

N

SCALE
0' 40' 80' 160'

REVISIONS	DATE
1ST SUBMITTAL	09/06/2022
2ND SUBMITTAL	09/29/2022
3RD SUBMITTAL	10/20/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

CIVIL DESIGN ADVANTAGE

BROOKSIDE VILLAGE PLAT 1

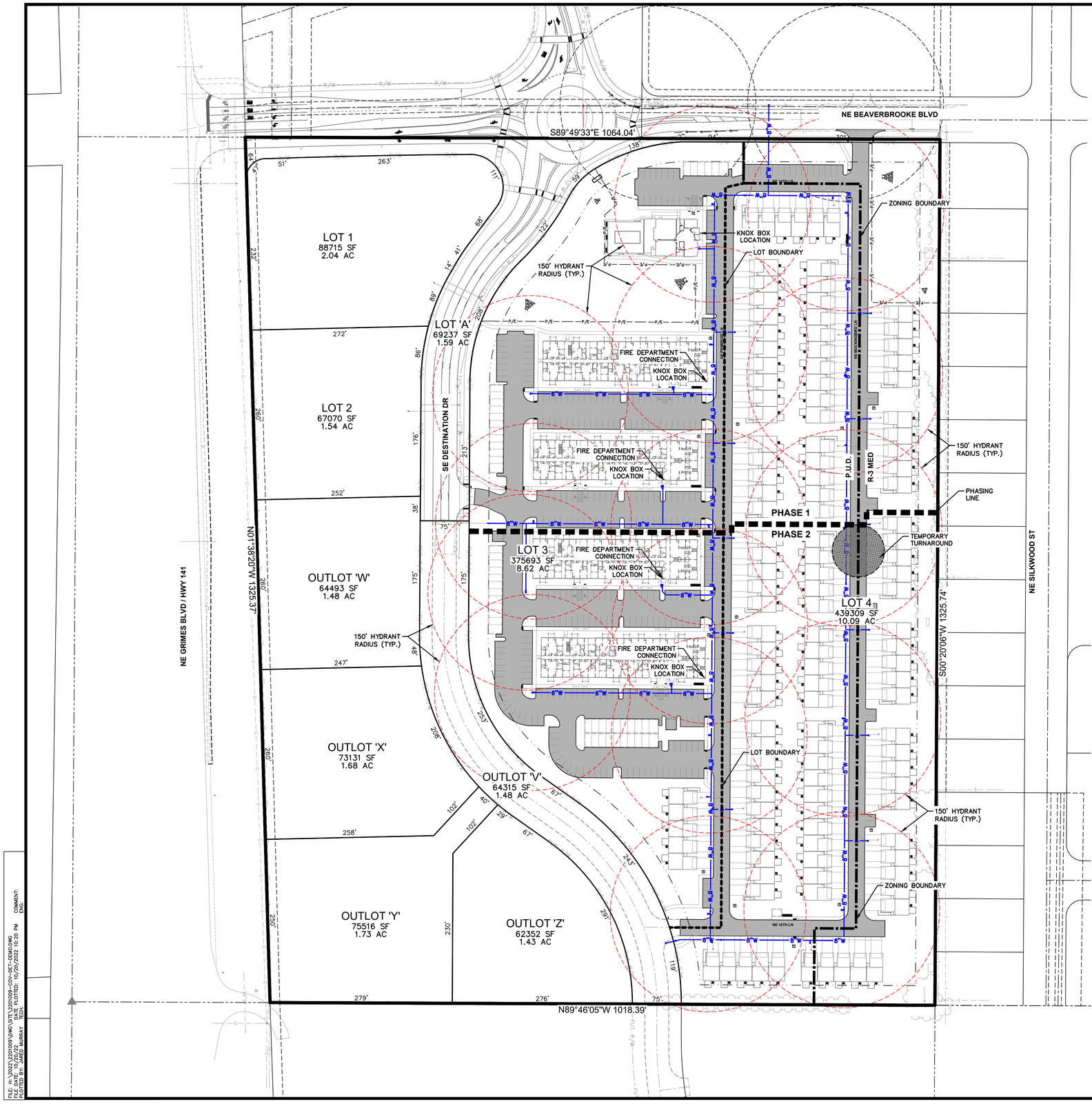
SITE SURVEY/DEMOLITION PLAN

GRIMES, IOWA

3.0

2201.009

P:\E: H:\2022\2201009\PWS\SITE\2201009-COV-SET-DEMO.DWG
PLOTTED: 10/20/2022 10:26 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:



CITY OF GRIMES STANDARD NOTES FOR SITE PLANS

1. GENERAL NOTES:
   - A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT VERSION OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS FOR PUBLIC IMPROVEMENTS ON THE DATE OF APPROVAL AND THE CITY OF GRIMES SUPPLEMENTAL SPECIFICATIONS.
   - B. A PRECONSTRUCTION MEETING IS REQUIRED PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THIS MEETING. CONTACT CITY OF GRIMES ENGINEERING DEPT. (515.986.4050).
   - C. ALL PERMITS (IDNR, SWP, IDOT, ARMY CORP., ETC.) SHALL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.
   - D. THE DEVELOPER AND/OR CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE CITY OF GRIMES WITH RECORD DRAWINGS OF ALL IMPROVEMENTS AS PER CITY STANDARD PROCEDURES.
   - E. TYPICAL BUILDING SERVICE LAYOUT TO REFLECT THE CITY'S SERVICE ORDER FROM LEFT TO RIGHT FACING THE LOT, SANITARY, WATER, SUMP
   - F. A KNOX BOX IS REQUIRED BY THE FIRE DEPARTMENT AND SHALL BE OBTAINED AT KNOXBOX.COM.
   - G. ALL SITE LIGHTING SHALL NOT SPILL ONTO ADJACENT PROPERTIES OR RIGHT-OF-WAYS.
   - H. PROVIDE A 4-YEAR MAINTENANCE BOND FOR ALL PUBLIC IMPROVEMENTS

2. SANITARY SEWER NOTES:
   - A. THE CONTRACTOR IS REQUIRED TO PLACE A TEMPORARY PLUG IN THE EXISTING DOWNSTREAM SANITARY SEWER MANHOLE PRIOR TO THE START OF CONSTRUCTION. THE PLUG SHALL BE REMOVED FOLLOWING APPROVAL OF CONSTRUCTION BY THE CITY OF GRIMES.
   - B. SANITARY GRAVITY PIPE MATERIAL SHALL BE PVC SDR 26 OR TRUSS (8" TO 15").
   - C. SANITARY GRAVITY SERVICE PIPE MATERIAL SHALL BE PVC SDR 23.5 (4" TO 6").
   - D. ALL SANITARY SEWER MANHOLES SHALL HAVE STEPS.
   - E. ALL SANITARY SEWER MANHOLES CASTINGS SHALL BE SEALED WITH HEAT SHRINK SLEEVES.
   - F. ALL SANITARY SEWER MANHOLE CASTINGS LOCATED WITHIN PAVEMENT SHALL BE TYPE B:PCC W/ADJUSTING MECHANISM.
   - G. SANITARY SEWER TESTING, CLEANING & TELEVISING SHALL BE COMPLETED PRIOR TO PAVING. THE SEWER SYSTEM SHALL BE FLUSHED WITH WATER PRIOR TO TELEVISING.

3. WATER MAIN NOTES:
   - A. ALL FIRE HYDRANTS SHALL BE AMERICAN FLOW CONTROL-WATEROUS PACER WB-67-250, MUELLER SUPER CENTURION 250 (3-WAY A-423), OR CLOW MEDALLION F-2545. ALL HYDRANTS SHALL HAVE THE FOLLOWING: 6"MJ SHOE, 2-1/2" HOSE NOZZLE, 4-1/2" STEAMER NOZZLE, NST THREADS, PENTAGON OPERATING NUT, CHAIN ON CAP, OPEN LEFT, 5-1/2' BURY, AND FACTORY PAINTED RED. THE MINIMUM SPOOL PIPE LENGTH FROM AUXILIARY VALVE TO HYDRANT SHOE SHALL BE 2.0'.
   - B. ALL HYDRANTS WILL IMMEDIATELY BE COVERED WITH A BLACK PLASTIC BAG (OR EQUIVALENT) ONCE THE HYDRANT IS INSTALLED. THE CITY OF GRIMES WILL NOTIFY THE CONTRACTOR WHEN THE BAGS CAN BE REMOVED.
   - C. A TRACER WIRE RECEPTACLE SHALL BE INSTALLED AT EACH HYDRANT, AA MANUFACTURING TRACER WIRE RECEPTACLE MODEL TW-1B-2.
   - D. ALL VALVES SHALL BE RESILIENT WEDGE GATE VALVES.
   - E. WATER SERVICE SHALL BE 1-INCH RESIDENTIAL, 2"COMMERCIAL MINIMUM TYPE K COPPER.
   - F. PROPOSED WATER MAIN SHALL BE PRESSURE TESTED AND CHLORINATED BY THE DEVELOPER. THE FILLING OF THE WATER MAIN SHALL BE DONE BY THE CITY OF GRIMES. THE BACTERIA TEST AND SUBMITTAL OF TEST TO LAB SHALL BE DONE BY THE DEVELOPER AND RESULTS PROVIDED TO THE CITY OF GRIMES ENGINEERING DEPT. AND BY FAX TO US WATER AT 515-986-7300. IF THE TEST DOES NOT PASS, THE CONTRACTOR WILL BE REQUIRED TO PAY FOR ALL THE WATER USED TO REPEAT THE TEST.
   - G. ALL WATERMAIN FITTINGS TO BE RESTRAINED JOINT, MEGA-LUG OR APPROVED EQUAL.

4. STORM SEWER NOTES:
   - A. ALL STORM SEWER IN THE ROW SHALL BE RCP, UNLESS OTHERWISE APPROVED BY THE CITY.
   - B. ALL FLARED END SECTIONS SHALL HAVE FOOTINGS AND APRON GRATES. THE LAST 3 PIPE SECTIONS AND THE FLARED END SECTION ON ALL CULVERTS SHALL BE TIED. ALL STORM SEWER JOINTS SHALL BE WRAPPED WITH ENGINEERING FABRIC.
   - C. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY FIELD TILE DAMAGED DURING CONSTRUCTION. THE TILE SHOULD BE DIRECTED TO PUBLIC STORM SEWER IF POSSIBLE. THE CONTRACTOR SHALL RECORD THE ELEVATION AND LOCATION OF ALL TILES.
   - D. STORM SEWER CLEANING & TELEVISING SHALL BE COMPLETED PRIOR TO PAVING. THE SEWER SYSTEM SHALL BE FLUSHED WITH WATER PRIOR TO TELEVISING.
   - E. USE O RING GASKETS ON STORM SEWERS CROSSING OVER WATERMAIN PER IDNR REQUIREMENT.

5. SIGNAGE NOTES:
   - H. ALL SIGNAGE SHALL BE SUPPLIED AND INSTALLED BY THE DEVELOPER.
   - I. ALL SIGN POSTS SHALL BE TELESPAR 2"X2"SQUARE TUBE GALVANIZED STEEL (14-GAUGE MIN.) WITH 7/16"KNOCK-OUT STYLE PERFORATIONS THAT ARE PRE-PUNCHED.

REVISIONS	DATE
1ST SUBMITTAL	09/06/2022
2ND SUBMITTAL	09/29/2022
3RD SUBMITTAL	10/20/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: JMM | TECH: JDS

CIVIL DESIGN ADVANTAGE

BROOKSIDE VILLAGE PLAT 1

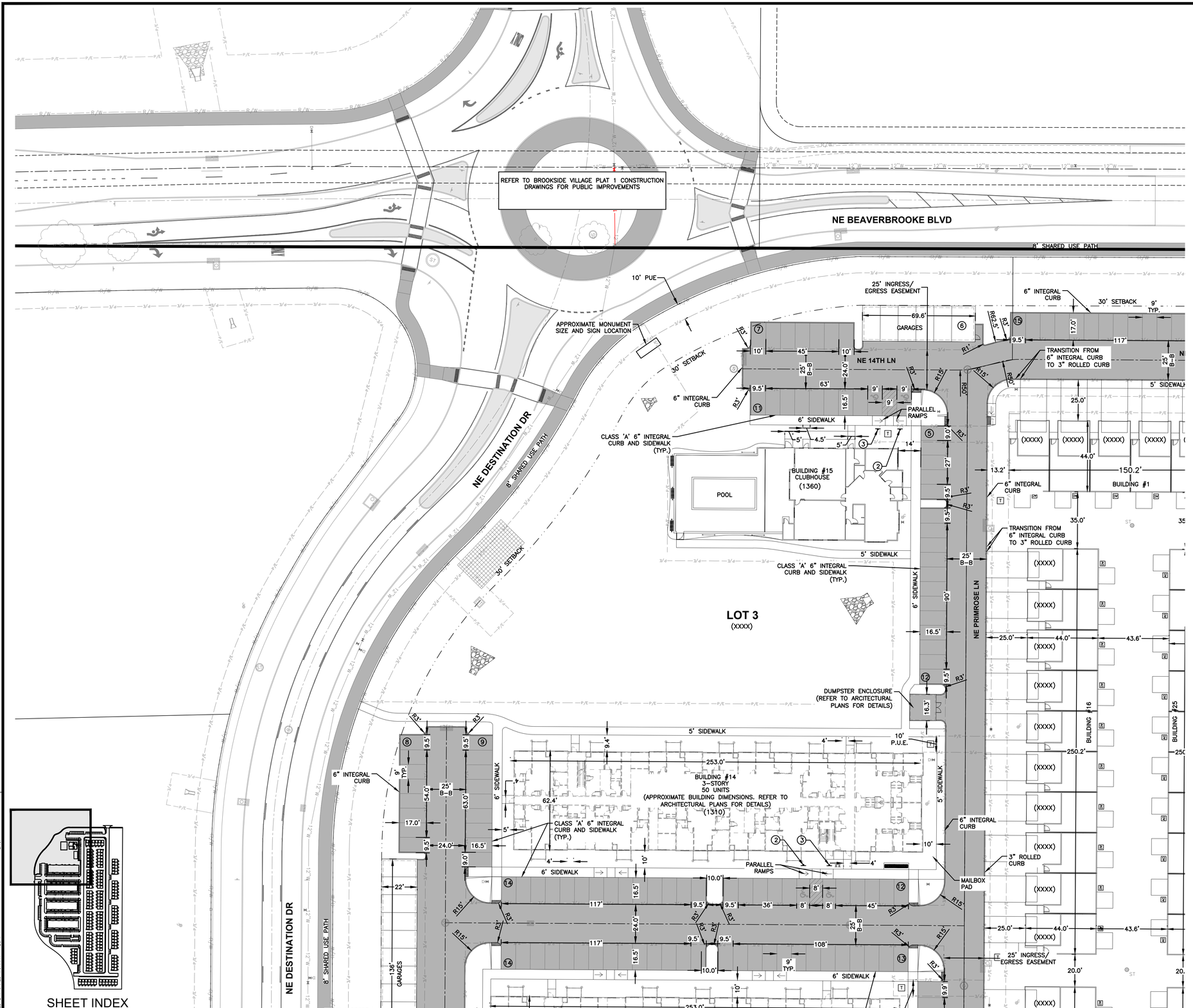
SITE LAYOUT, HYDRANT COVERAGE & PHASING PLAN

GRIMES, IOWA

4.0

2201.009

FILE: R:\2022\2201009\DWG\SITE\2201009-COV-SET-DEMO.DWG
PLOTTED: 10/20/2022 10:20 PM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG.



GENERAL NOTES

1. THE 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
2. ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES AND FAIR HOUSING ACT FOR BUILDINGS AND FACILITIES.
3. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
4. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
5. ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO PUBLIC SEWERS CONTRACTOR SHALL NOTIFY THE CITY'S CONSTRUCTION DIVISION.
6. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE CITY'S STANDARDS.
7. ALL DIMENSIONS ARE TO BACK OF CURB, EXTERIOR OF BUILDING OR PROPERTY LINE UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
9. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
10. REMOVE ALL DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY.
11. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
12. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
13. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
14. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
15. THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OR THE CITY.
16. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
17. ALL SCOUR STOP SHALL BE INSTALLED BY A CERTIFIED CONTRACTOR ACCORDING TO SCOUR STOP PRODUCT SPECIFICATIONS.
18. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACTOR BID.
19. REFER TO SHEET 11.0 FOR DETAILS ON SCREENING OF TRANSFORMERS, GAS METERS, ELECTRIC METERS AND A/C UNITS.
20. NO PARKING IS ALLOWED WITHIN THE 24 FOOT DRIVE AISLES. PARKING IS ONLY ALLOWED IN DESIGNATED PARKING AREAS.

TRAFFIC CONTROL NOTES

1. ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
4. THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
5. SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES.
6. THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
7. ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.

PAVEMENT THICKNESS

1. SIDEWALKS	4" P.C.C.
2. SIDEWALK RAMPS AND SIDEWALK THROUGH DRIVEWAYS	6" P.C.C.
2. DRIVEWAYS	6" P.C.C.
3. PRIVATE ROADS	6" P.C.C.
4. DUMPSTER ENCLOSURE	8" P.C.C.

SIGN LEGEND

R1-1 (1) R7-8a (2) R7-8 (3)

* * * N O T E * * *
THE BUILDINGS SHOWN ARE FOR REFERENCE PURPOSES ONLY. DIMENSIONS SHOWN ARE APPROXIMATED. FINAL UNIT TYPE IS SUBJECT TO CHANGE. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.

SCALE 0' 15' 30' 60'

SHEET INDEX

FILE: H:\2022\2201009\DWG\SITE\2201009-DIMENSION.DWG
PLOT DATE: 10/20/2022 10:20 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: JMM | TECH: JDS

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

CIVIL DESIGN ADVANTAGE
GRIMES, IOWA

BROOKSIDE VILLAGE PLAT 1

DIMENSION PLAN

5.0

2201.009

REFER TO BROOKSIDE VILLAGE PLAT 1 CONSTRUCTION DRAWINGS FOR PUBLIC IMPROVEMENTS

NE BEAVERBROOKE BLVD

8' SHARED USE PATH

10' PUE

APPROXIMATE MONUMENT SIZE AND SIGN LOCATION

25' INGRESS/ EGRESS EASEMENT

6" INTEGRAL CURB

30' SETBACK

9' TYP.

5' SIDEWALK

25' B-B

69.6'

GARAGES

R62.5'

R3'

R1'

R15'

R60'

17.0'

117'

9.5'

NE 14TH LN

TRANSITION FROM 6" INTEGRAL CURB TO 3" ROLLED CURB

LOT 4
(XXXX)

10'

45'

24.0'

63'

9'

16.5'

PARALLEL RAMPS

6' SIDEWALK

CLASS 'A' 6" INTEGRAL CURB AND SIDEWALK (TYP.)

DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL PLANS FOR DETAILS. (TYP.)

(XXXX)

25.0'

44.0'

150.2'

250.2'

13.2'

18.2'

BUILDING #15
CLUBHOUSE
(1360)

POOL

14'

27'

BUILDING #1

MAILBOX PAD

DUMPSTER ENCLOSURE (REFER TO ARCITECTURAL PLANS FOR DETAILS)

35.0'

NE DESTINATION DR

8' SHARED USE PATH

30' SETBACK

LOT 3
(XXXX)

NE PRIMROSE LN

NE MOCKINGBIRD LN

BUILDING #16

BUILDING #25

BUILDING #2

43.6'

20.0'

16.5'

90'

DETENTION EASEMENT

3" ROLLED CURB

40.0'

125.2'

36.4'

BUILDING #14
3-STORY
50 UNITS
(APPROXIMATE BUILDING DIMENSIONS. REFER TO ARCHITECTURAL PLANS FOR DETAILS)
(1310)

253.0'

62.4'

54.0'

63.0'

22'

136'
GARAGES

10' P.U.E.

9.4'

9.9'

* * * N O T E * * *
THE BUILDINGS SHOWN ARE FOR REFERENCE PURPOSES ONLY. DIMENSIONS SHOWN ARE APPROXIMATED. FINAL UNIT TYPE IS SUBJECT TO CHANGE. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.

SHEET INDEX

SCALE
0' 15' 30' 60'

REVISIONS	DATE
1ST SUBMITTAL	09/06/2022
2ND SUBMITTAL	09/29/2022
3RD SUBMITTAL	10/20/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

CIVIL DESIGN ADVANTAGE
GRIMES, IOWA

BROOKSIDE VILLAGE PLAT 1

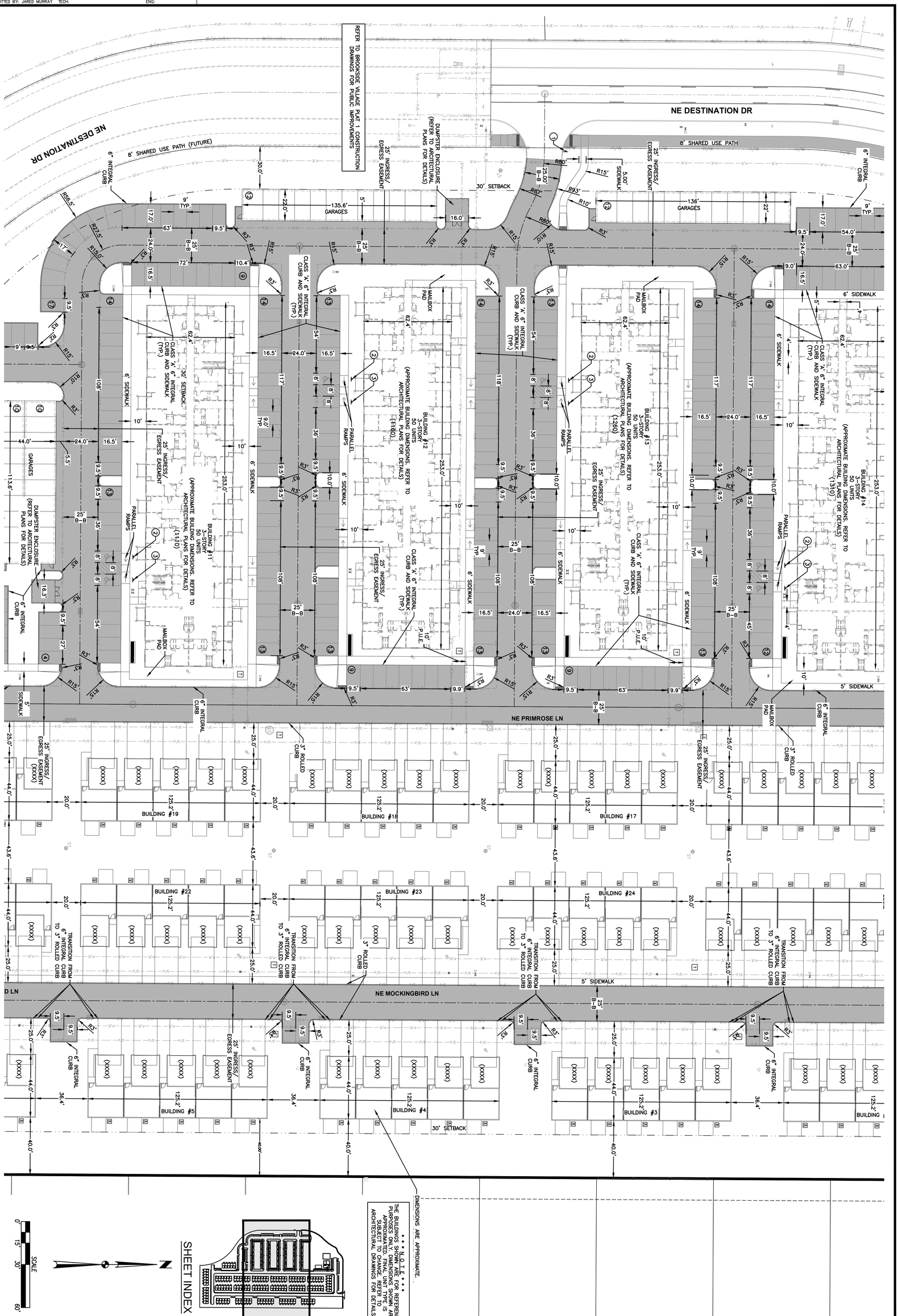
DIMENSION PLAN

5.1

2201.009

FILE: R:\2022\2201009\DWG\SITE\2201009-DIMENSIONS.DWG
PLOT DATE: 10/20/2022 10:20 PM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG.
TECH:

FILE: H:\2022\2201009\DWG\SITE\2201009-DIMENSION.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:21 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:



5.2
2201.009

BROOKSIDE VILLAGE PLAT 1

DIMENSION PLAN

GRIMES, IOWA

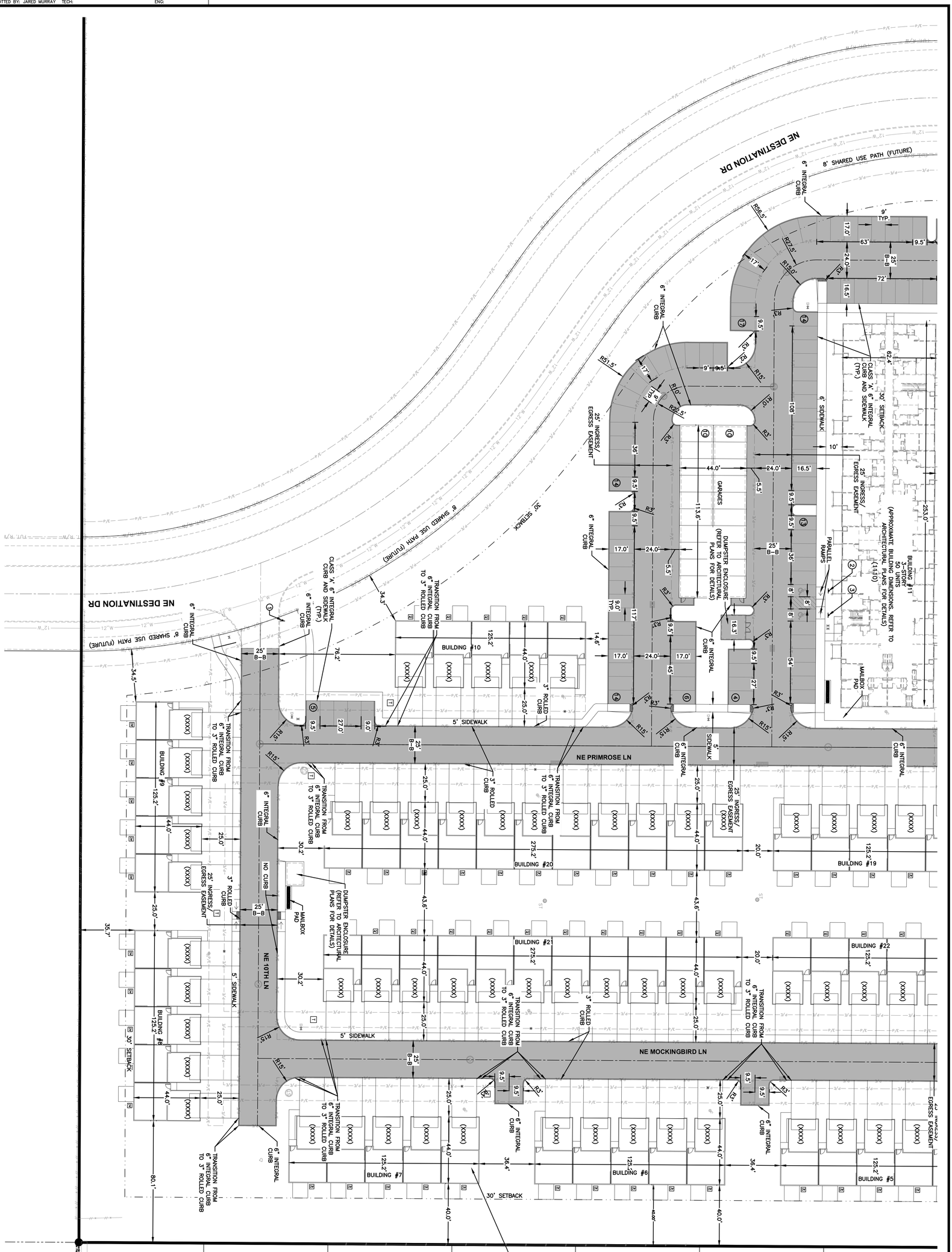
CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

FILE: H:\2022\2201009\DWG\SITE\2201009-DIMENSION.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:21 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:



5.3
2201.009

BROOKSIDE VILLAGE PLAT 1

DIMENSION PLAN

GRIMES, IOWA

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: JMM
TECH: JDS

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

GRADING NOTES

1. THE COMPLETION AND APPROVAL OF THE COSESCO PERMIT SHALL BE PROVIDED TO THE CITY OF GRIMES BUILDING DIVISION AND STORM WATER DEPARTMENT PRIOR TO ANY GRADING ACTIVITIES.
2. CONTRACTOR SHALL STRIP ALL DELETERIOUS MATERIAL. THE TOP 6" OF TOPSOIL IS TO BE STOCKPILED AND RESPREAD AFTER GRADING IS COMPLETE. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A SUITABLE TOPSOIL STOCKPILE SITE.
3. EXCAVATION SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY OF GRIMES STANDARD NOTES, IF APPLICABLE,
4. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
5. ALL SPOT ELEVATIONS ARE FORM GRADE (FG) OR TOP OF FINISHED SURFACES UNLESS OTHERWISE NOTED.
6. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
7. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
8. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
10. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR DETAILS ON EROSION CONTROL.
11. FINAL FINISH GRADING TO BE APPROVED BY THE ARCHITECT AND CIVIL ENGINEER. MATCH EXISTING GRADES AT THE INTERFACE OF NEW AND EXISTING GRADES OR PAVING.
12. SIDEWALKS:
    MAINTAIN 1.0% MINIMUM AND 5% MAXIMUM LONGITUDINAL SLOPES ON ALL PAVED WALKWAYS. ALL WALKS TO HAVE 2.0% MAXIMUM TRANSVERSE SLOPE IN THE DIRECTION OF NATURAL DRAINAGE. SAW CUT JOINTS AS SOON AS CONCRETE HAS SET. SAW CUTS TO BE 1/8" TO 1/4" WIDE; DEPTH: LONGITUDINAL T/3, TRANSVERSE T/4.
13. THE GRADING OF THE DETENTION FACILITY, INSTALLATION OF THE STORM SEWER SYSTEM (IF APPLICABLE), INSTALLATION OF THE ORIFICE PLATE AND INSTALLATION OF THE TEMPORARY STAND PIPE SHALL BE COMPLETED AND FUNCTIONAL PRIOR TO ANY INCREASE IN IMPERVIOUS SURFACES WITHIN THE SITE OR THE PREVIOUSLY MENTIONED ITEMS SHALL BE GRADED/ INSTALLED AS SOON AS POSSIBLE.
14. A CERTIFIED AS-BUILT GRADING PLAN OF THE DETENTION BASIN AND DRAINAGE SWALES SHALL BE SUBMITTED TO THE CITY OF GRIMES UPON COMPLETION OF THE SITE IMPROVEMENTS FOR EACH PHASE OF CONSTRUCTION PRIOR TO FINAL ACCEPTANCE.
15. CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWING SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE.

* * * NOTE * * *

G.F.E. = FINISHED FLOOR ELEVATION AT THE FRONT OF THE GARAGE DOOR. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS ON SLOPE THROUGH GARAGE.

NE BEAVERBROOKE BLVD

NE DESTINATION DR

NE 14TH LN

NE PRIMROSE LN

GFE=974.13

BUILDING #15
CLUB HOUSE AND POOL
FFE=974.65

POND 2
NORMAL POOL=965.25
100-YEAR ELEVATION=971.23

DETENTION EASEMENT

INSTALL 800 SF OF ROLLMAX P300 PERMANENT TRM

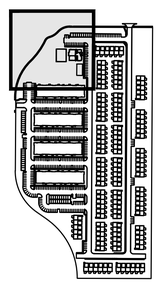
TOP OF BANK ELEVATION=972.75

36' WIDE OVERFLOW ELEVATION=971.25

OVERFLOW PATH (TYP.)

REFER TO DETAIL 'A' ON SHEET 6.7

SHEET INDEX



SCALE 0' 10' 20' 40'

FILE: H:\2022\2201009\DWG\SITE\2201009-GRADING.DWG
PLOT DATE: 10/20/2022 10:21 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

BROOKSIDE VILLAGE PLAT 1

GRADING PLAN

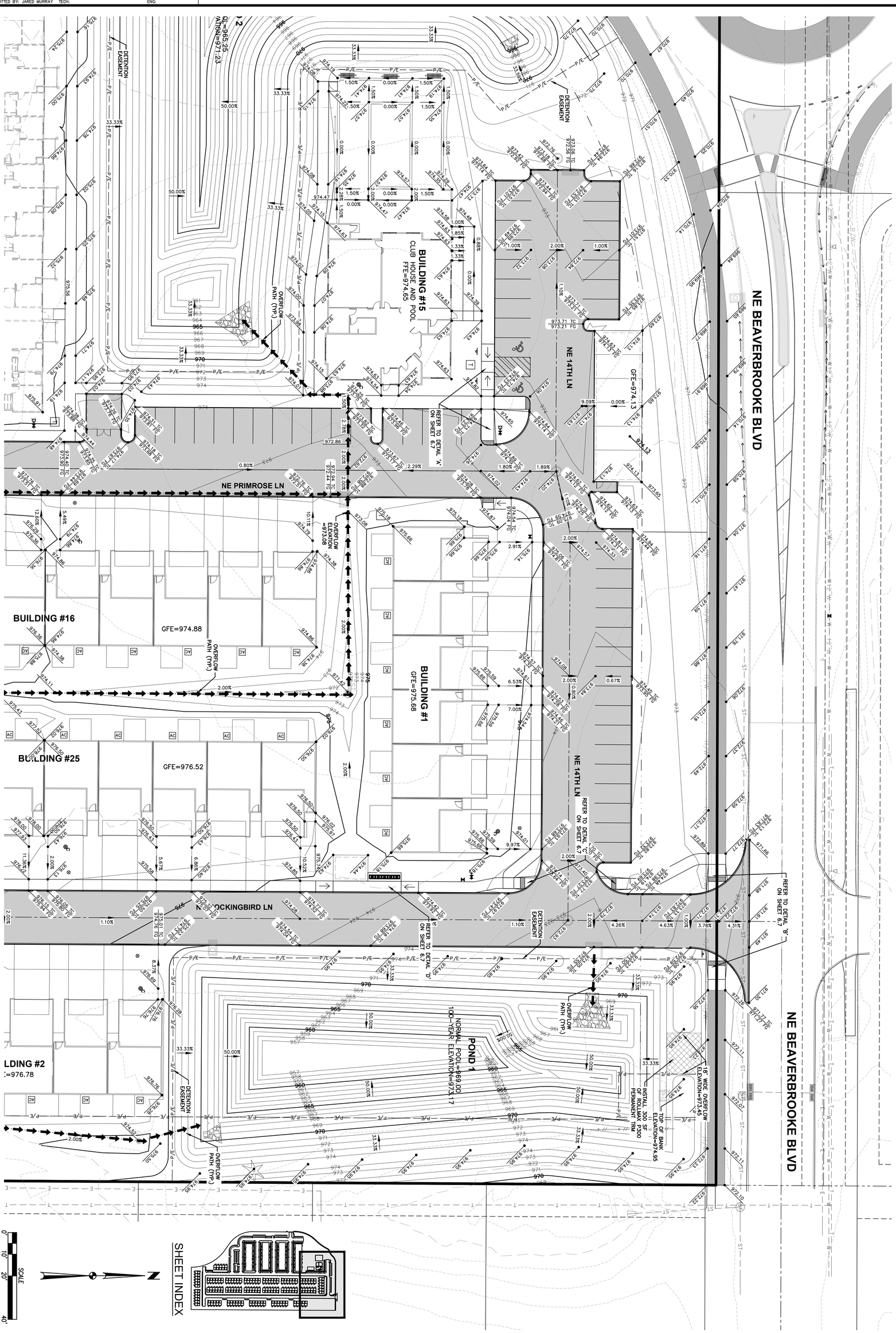
GRIMES, IOWA

CIVIL DESIGN ADVANTAGE

6.0

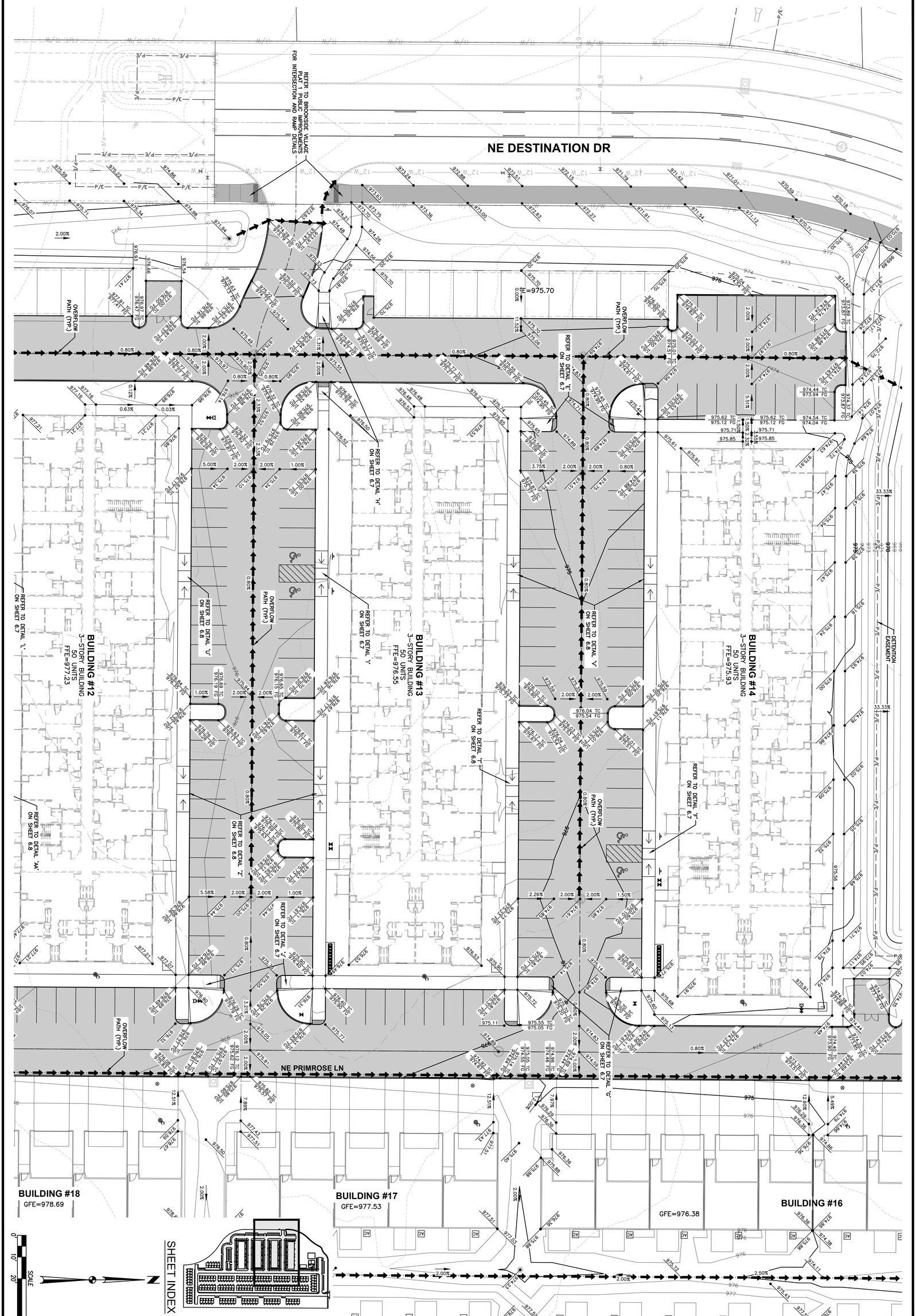
2201.009

FILE: H:\2022\2201009\DWG\SITE\2201009-GRADING.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:21 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:



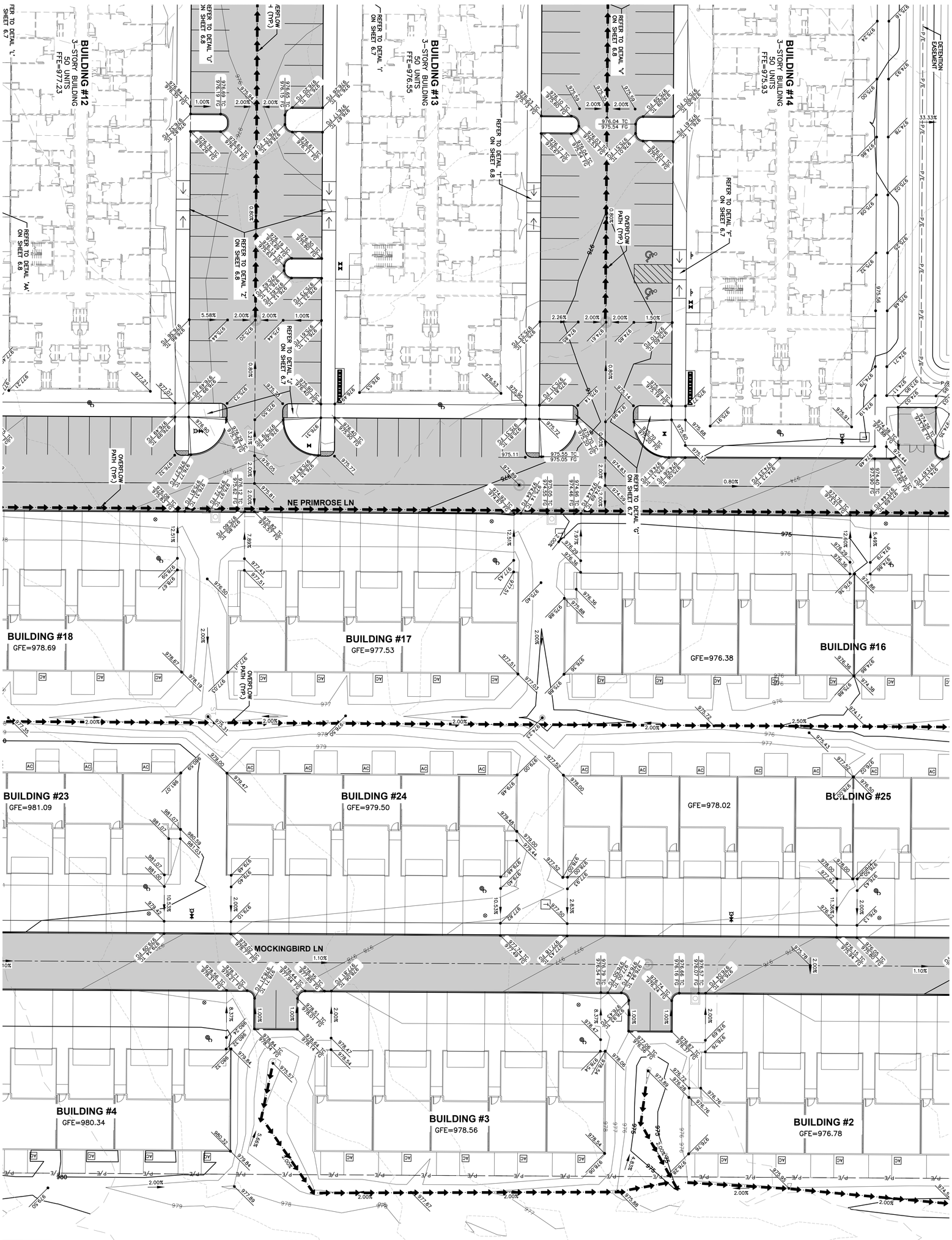
6.1	BROOKSIDE VILLAGE PLAT 1	CIVIL DESIGN ADVANTAGE	4121 NW URBANDALE DRIVE URBANDALE, IA 50322 PHONE: (515) 369-4400	REVISIONS	DATE
2201.009	GRADING PLAN	GRIMES, IOWA	ENGINEER: JMM TECH: JDS	3RD SUBMITTAL	10/20/2022
				2ND SUBMITTAL	09/29/2022
				1ST SUBMITTAL	09/06/2022

FILE: H:\2022\2201009\DWG\SITE\2201009-GRADING.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:21 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:

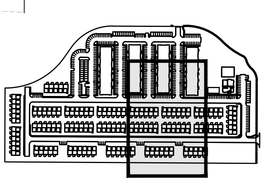


6.2	**BROOKSIDE VILLAGE PLAT 1**		4121 NW URBANDALE DRIVE URBANDALE, IA 50322 PHONE: (515) 369-4400	REVISIONS	DATE
2201.009	**GRADING PLAN**	CIVIL DESIGN ADVANTAGE			
	GRIMES, IOWA		ENGINEER: JMM	TECH: JDS	3RD SUBMITTAL 10/20/2022 2ND SUBMITTAL 09/29/2022 1ST SUBMITTAL 09/06/2022

FILE: H:\2022\2201009\DWG\SITE\2201009-GRADING.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:21 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:



SHEET INDEX



SCALE 0' 10' 20' 40'

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

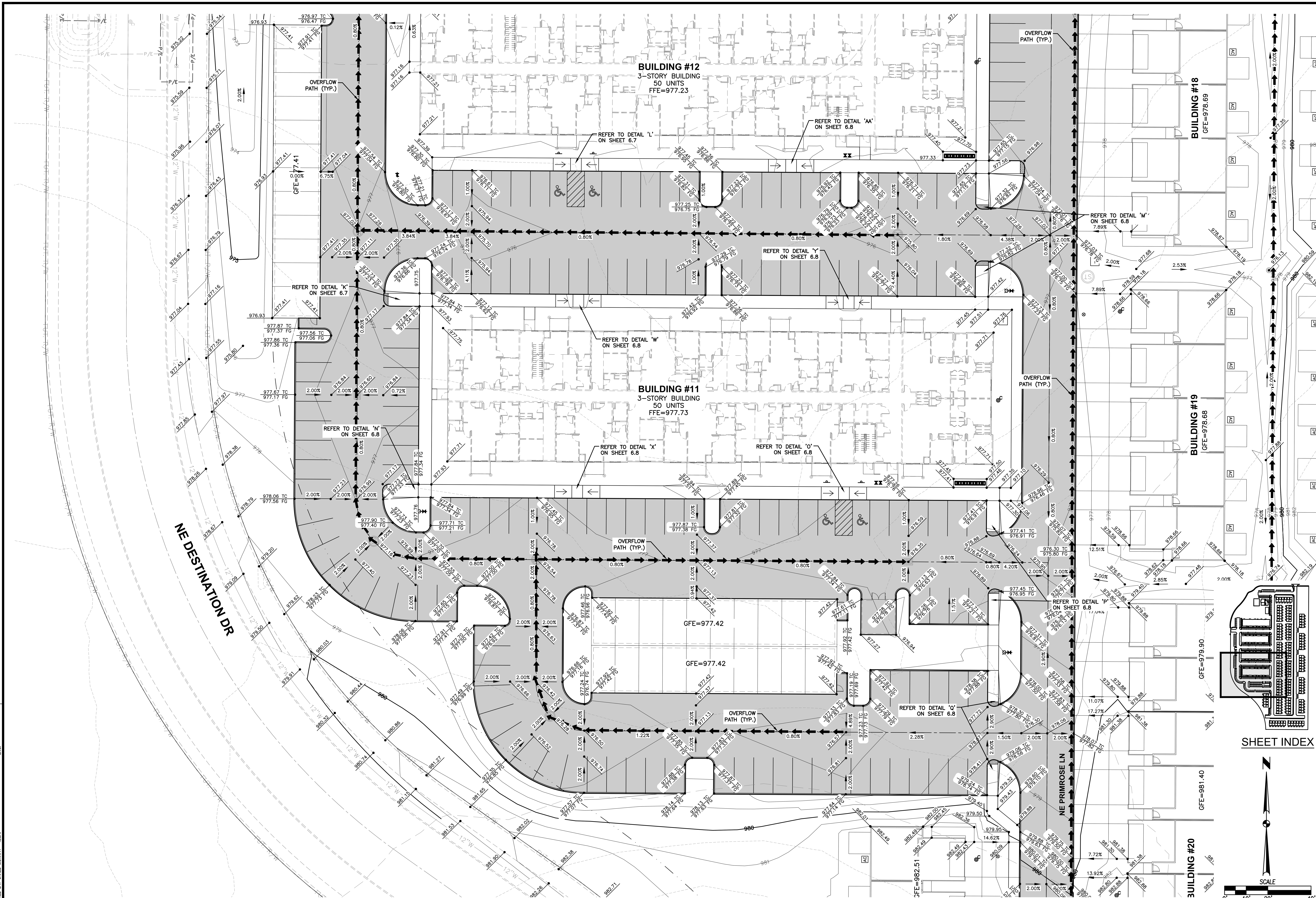
REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

BROOKSIDE VILLAGE PLAT 1

GRADING PLAN

GRIMES, IOWA | CIVIL DESIGN ADVANTAGE | ENGINEER: JMM | TECH: JDS

2201.009 | 6.3



FILE: H:\2022\2201009\DWG\SITE\2201009-GRADING.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:21 PM
PLOTTED BY: JARED MURRAY TECH: COMMENT: ENG:

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

TECH: JDS

ENGINEER: JMM

CIVIL DESIGN ADVANTAGE

BROOKSIDE VILLAGE PLAT 1

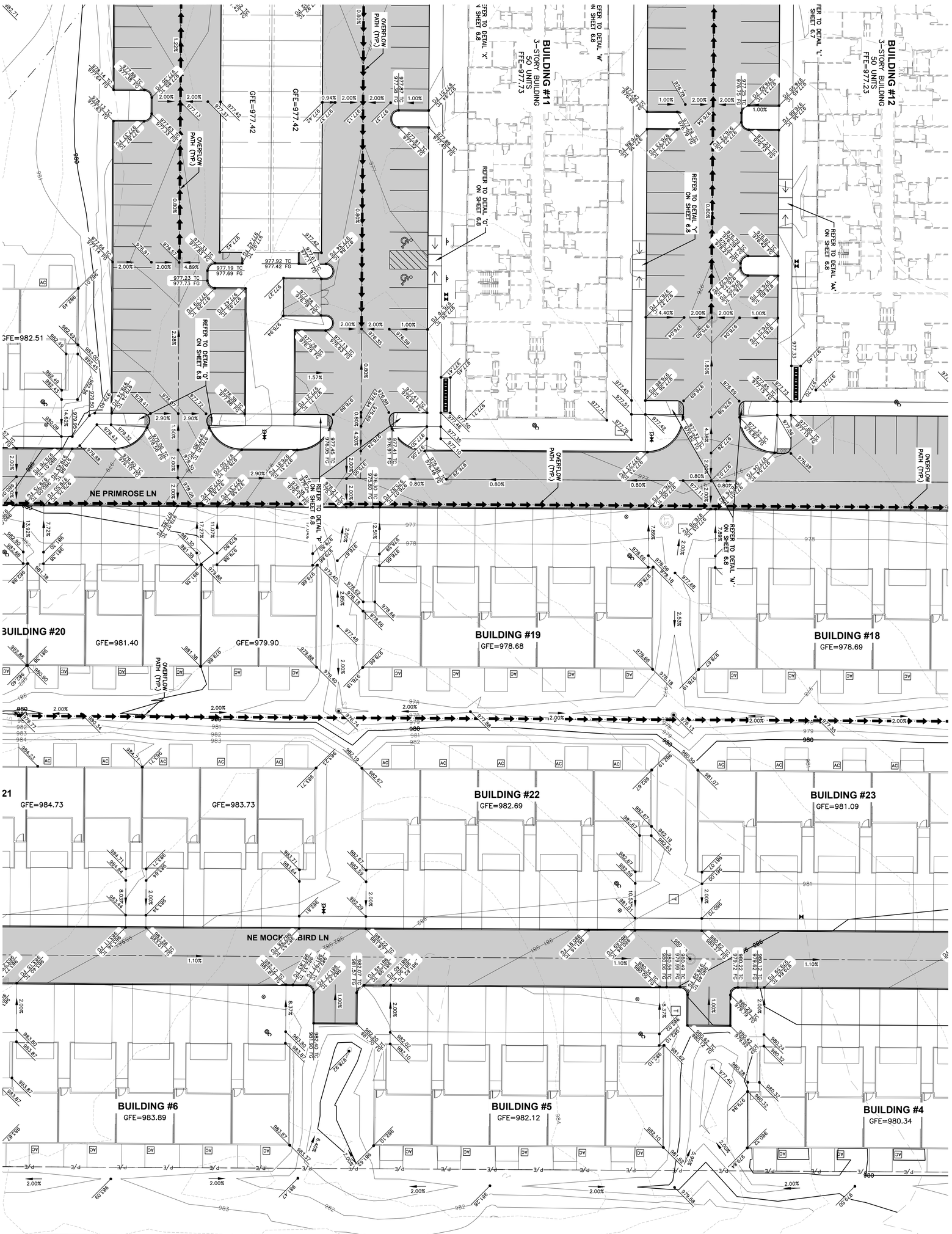
GRADING PLAN

GRIMES, IOWA

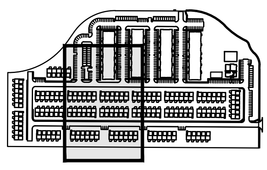
6.4

2201.009

FILE: H:\2022\2201009\DWG\SITE\2201009-GRADING.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:22 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:



SHEET INDEX



SCALE
0'
10'
20'
40'

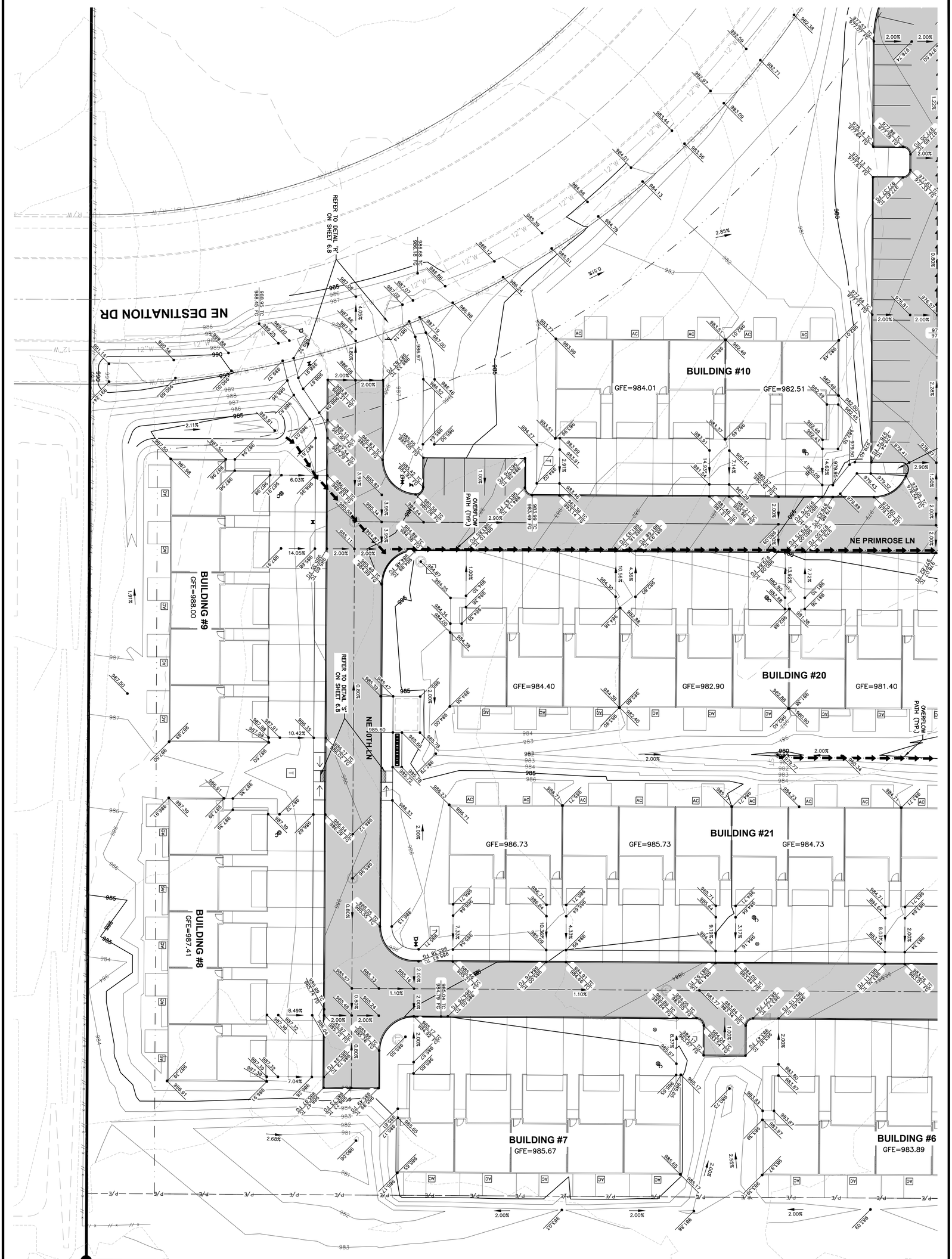
0A	2201.009	6.5	**BROOKSIDE VILLAGE PLAT 1**	GRIMES, IOWA	
			GRADING PLAN	CIVIL DESIGN ADVANTAGE	ENGINEER: JMM / TECH: JDS

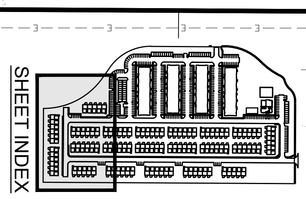
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

0A

FILE: H:\2022\2201009\DWG\SITE\2201009-GRADING.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:22 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:





0' 10' 20' 40' SCALE

BROOKSIDE VILLAGE PLAT 1

GRADING PLAN

GRIMES, IOWA

CIVIL DESIGN ADVANTAGE

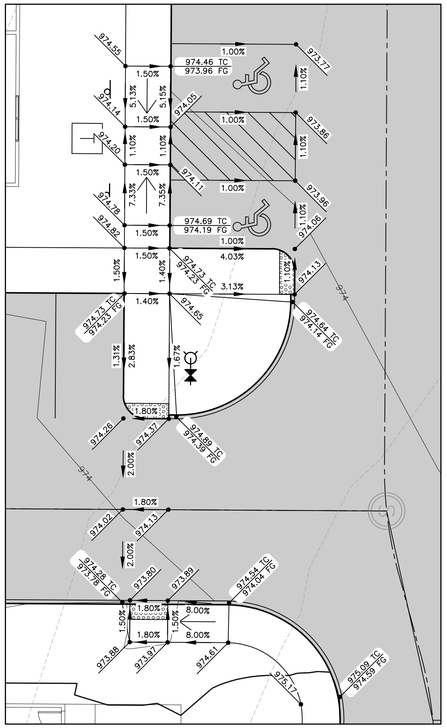
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

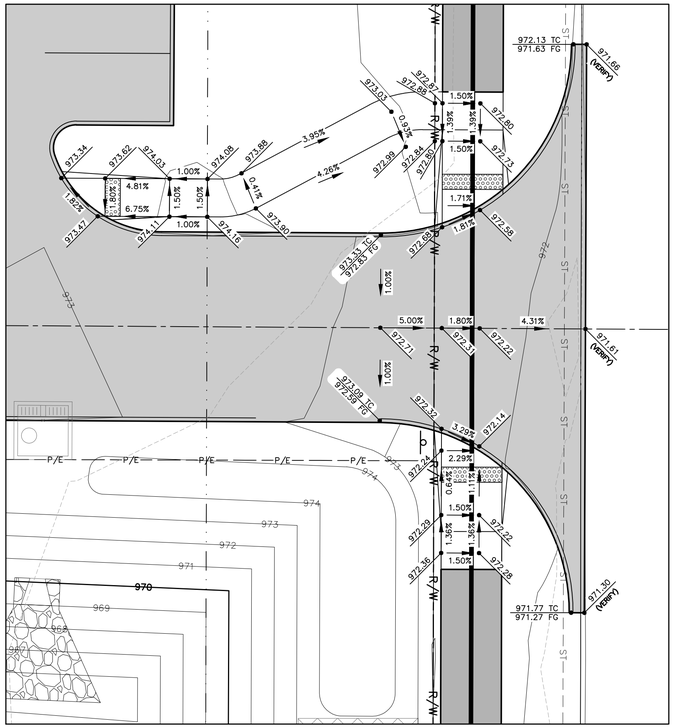
REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

2201.009

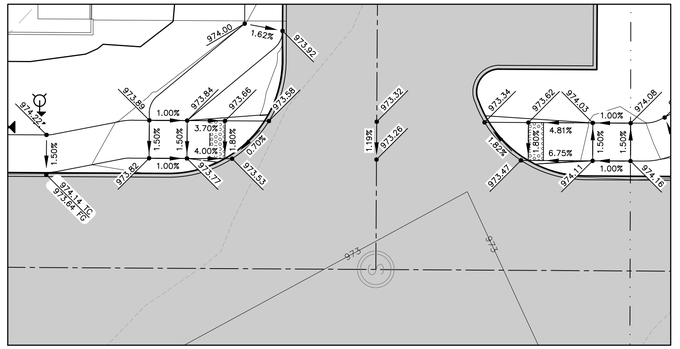
6.9



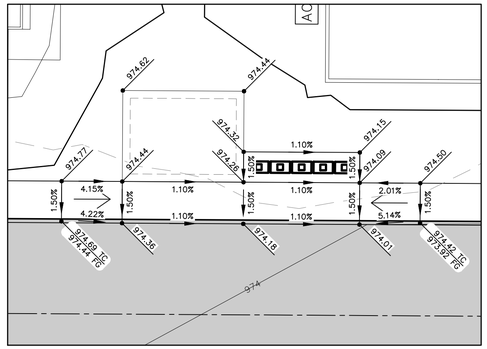
DETAIL 'A'



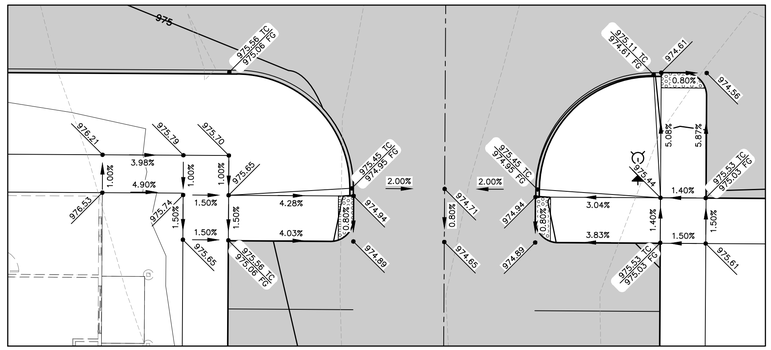
DETAIL 'B'



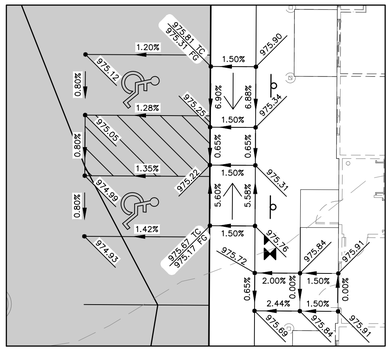
DETAIL 'C'



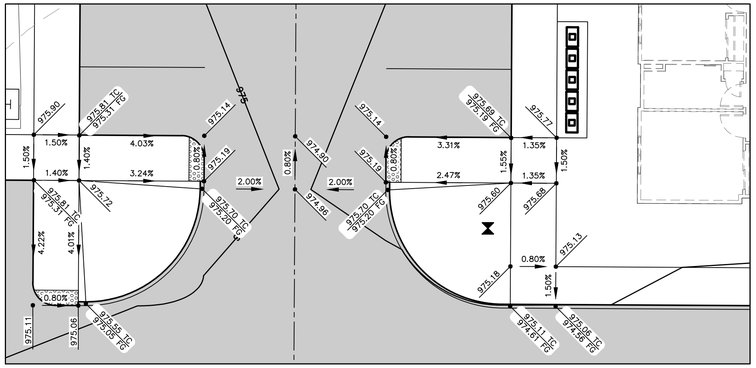
DETAIL 'D'



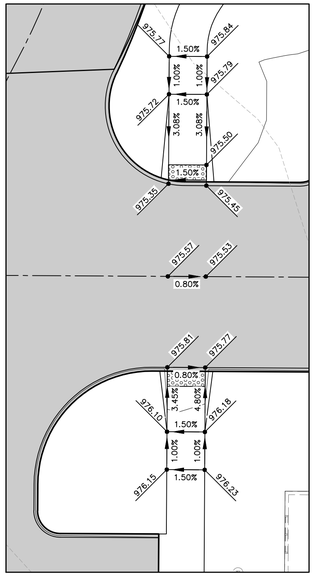
DETAIL 'E'



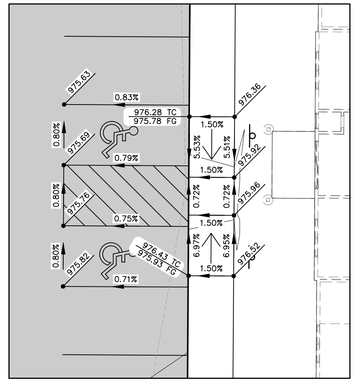
DETAIL 'F'



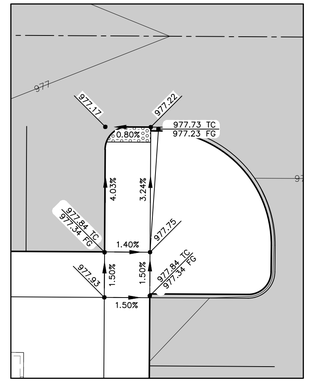
DETAIL 'G'



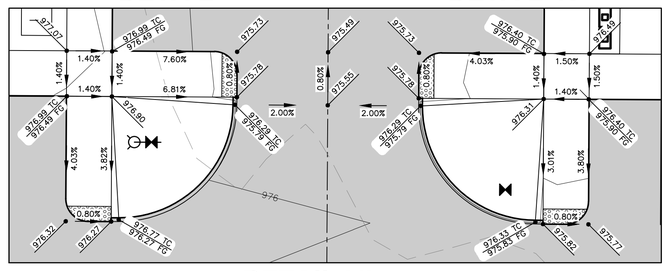
DETAIL 'H'



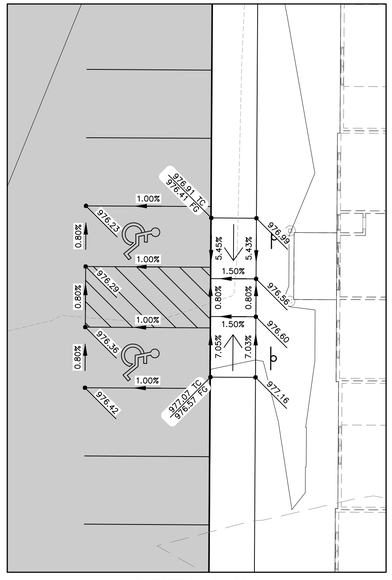
DETAIL 'I'



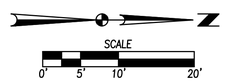
DETAIL 'K'



DETAIL 'J'



DETAIL 'L'



REVISIONS	DATE
1ST SUBMITTAL	09/06/2022
2ND SUBMITTAL	09/29/2022
3RD SUBMITTAL	10/20/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

CIVIL DESIGN ADVANTAGE
GRIMES, IOWA

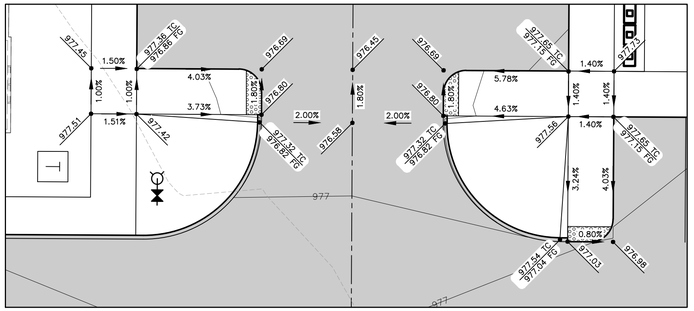
BROOKSIDE VILLAGE PLAT 1

GRADING PLAN

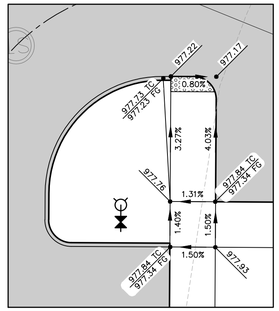
6.7

2201.009

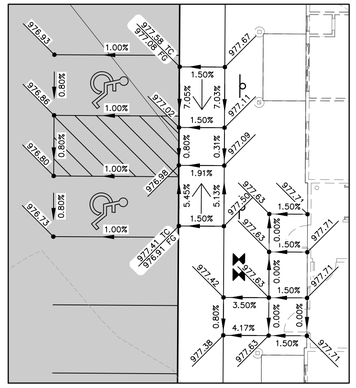
FILE: H:\2022\2201009\DWG\SET\2201009-GRADING.DWG
PLT SCALE: 1:1 | PLOT DATE: 10/20/2022 - 10:23 PM
PLOTTED BY: JARED MURRAY | TECH:
COMMENT:
ENG:



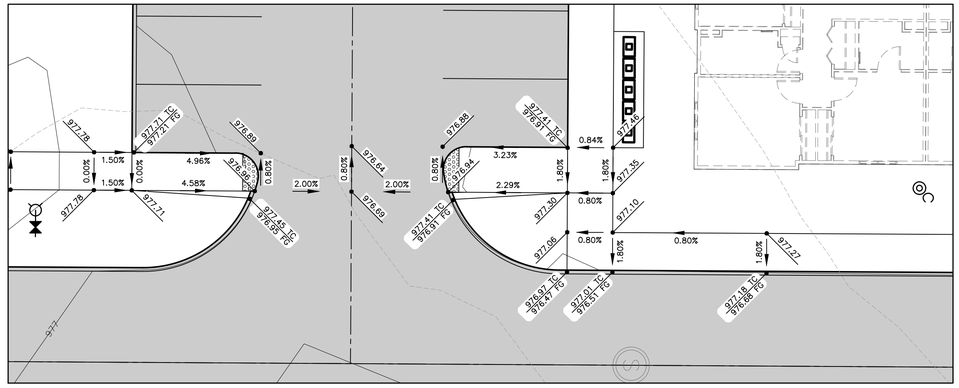
DETAIL 'M'



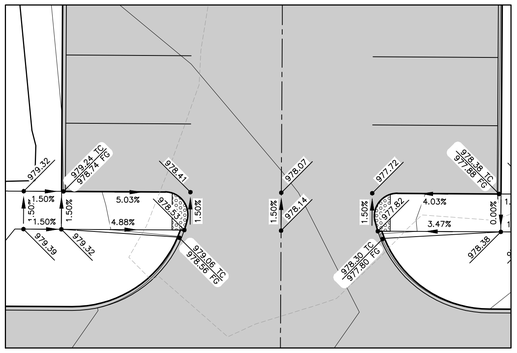
DETAIL 'N'



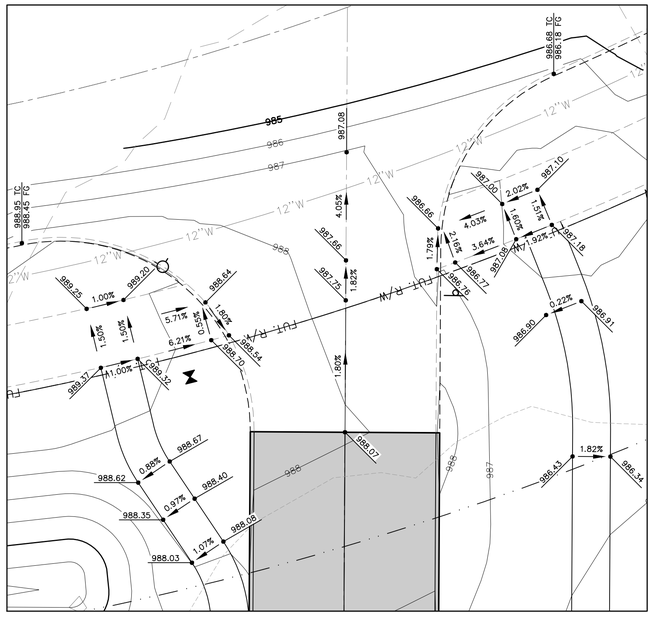
DETAIL 'O'



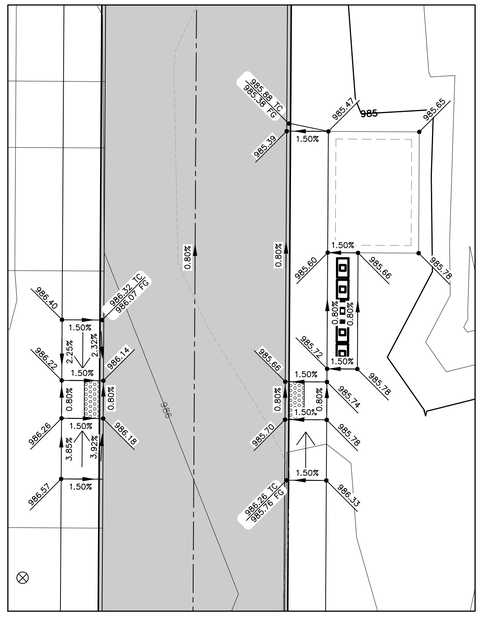
DETAIL 'P'



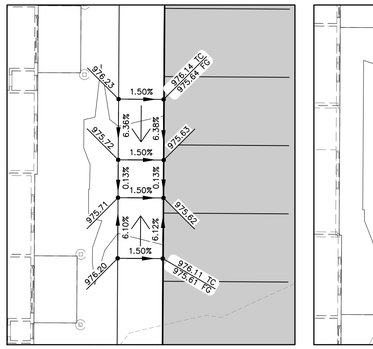
DETAIL 'Q'



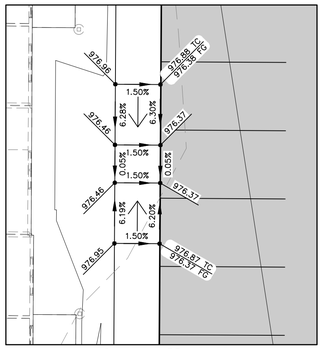
DETAIL 'R'



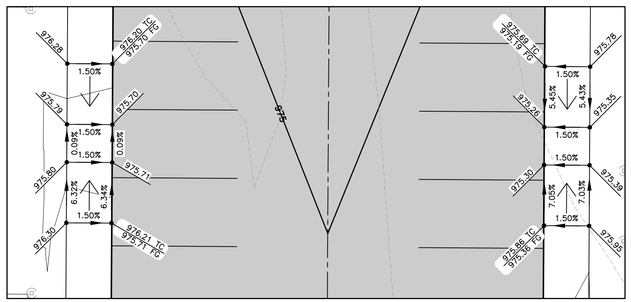
DETAIL 'S'



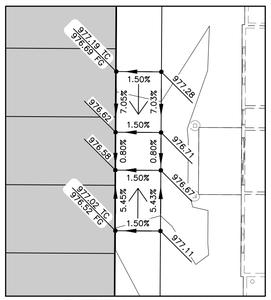
DETAIL 'T'



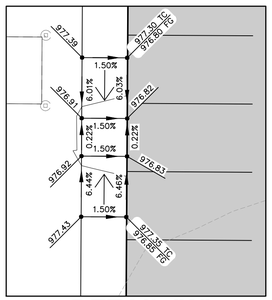
DETAIL 'U'



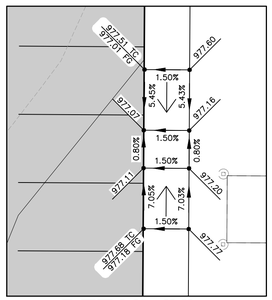
DETAIL 'V'



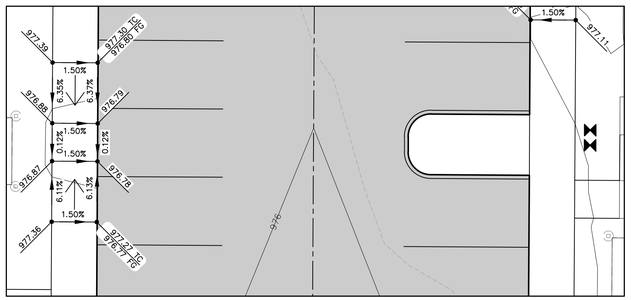
DETAIL 'AA'



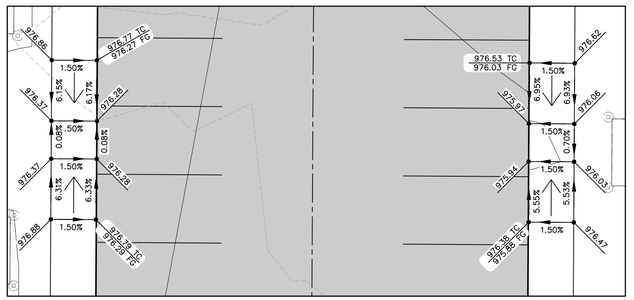
DETAIL 'W'



DETAIL 'X'



DETAIL 'Y'



DETAIL 'Z'

SCALE
0' 5' 10' 20'

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

ENGINEER: JMM | TECH: JDS

CIVIL DESIGN ADVANTAGE
GRIMES, IOWA

BROOKSIDE VILLAGE PLAT 1

GRADING PLAN

6.8

2201.009

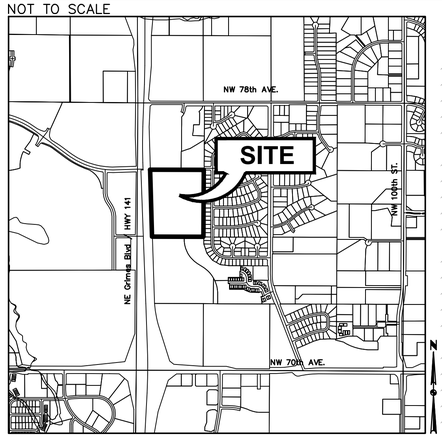
FILE: H:\2022\2201009\DWG\SITE\2201009-GRADING.DWG
LAST SAVED: 10/19/2022 10:25 PM
PLOTTED: 10/20/2022 10:25 PM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

BROOKSIDE VILLAGE PLAT 1

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



GRIMES, IOWA

SWPPP LEGEND

- DRAINAGE ARROW — X.XX %
- GRADING LIMITS
- SILT FENCE
- DITCH CHECK
- INLET PROTECTION
- PORTABLE RESTROOM — R
- CONCRETE WASHOUT PIT
- PERMANENT STANDPIPE
- UNDISTURBED AREA
- RIPRAP
- GRAVEL ENTRANCE
- STAGING AREA
- TEMPORARY SEDIMENT BASIN — TSB #

STABILIZATION QUANTITIES

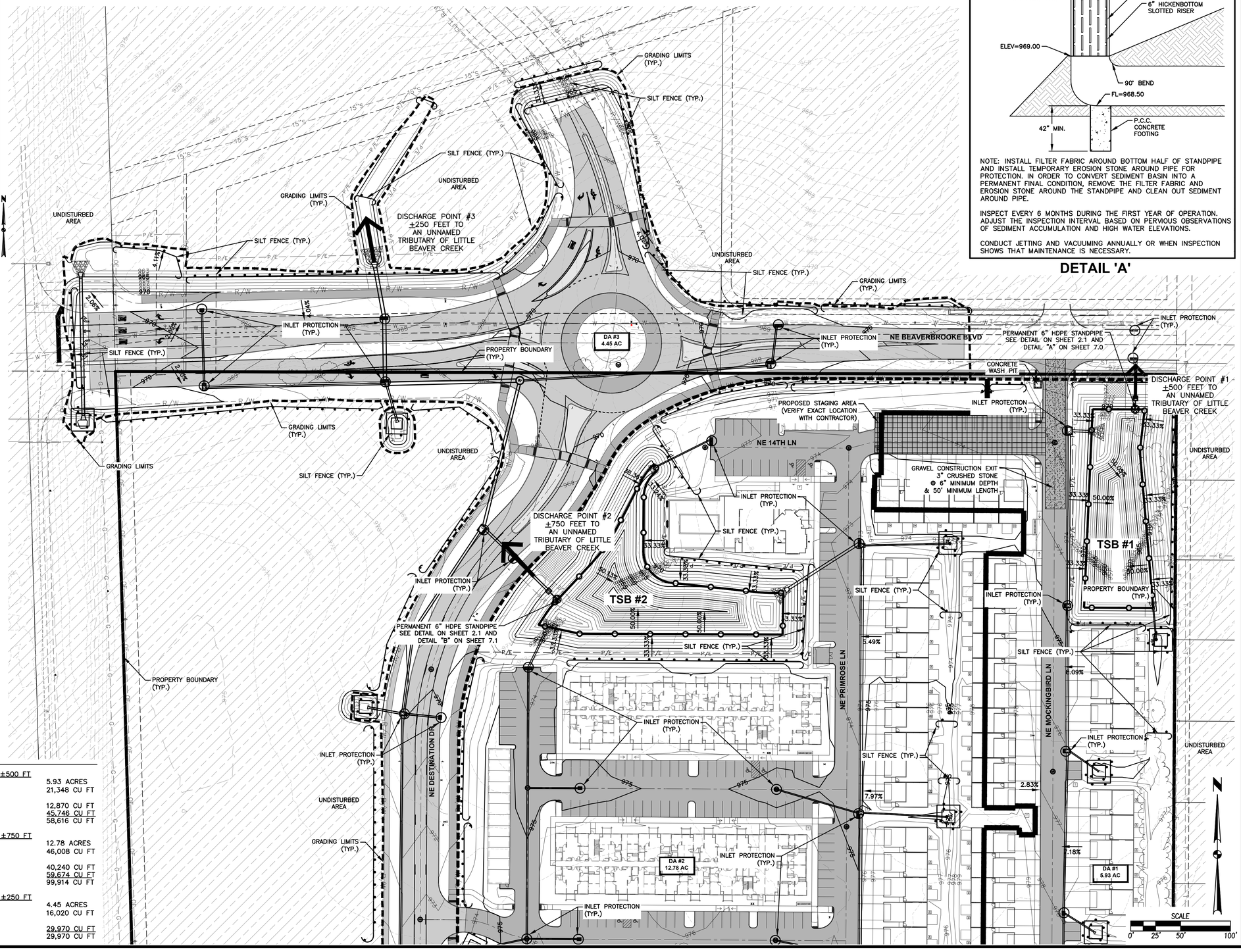
ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	8,308
2	SEEDING, FERTILIZING, AND MULCHING	AC	9.72
3	INLET PROTECTION DEVICES	EA	34
4	CONCRETE WASHOUT PIT	EA	1
5	DUMPSTER	EA	1
6	PORTABLE RESTROOM	EA	1
7	CONSTRUCTION ENTRANCE	EA	1
8	STAGING AREA	EA	1
9	RIP RAP	TONS	85

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO AN UNNAMED TRIBUTARY OF LITTLE BEAVER CREEK ±500 FT
- TOTAL AREA DISTURBED TO DISCHARGE POINT — 5.93 ACRES
- STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) — 21,348 CU FT
- VOLUME PROVIDED IN SILT FENCE (1,287 LF @ 10 CU FT/LF OF FENCE) — 12,870 CU FT
- VOLUME PROVIDED IN TSB #1 — 45,746 CU FT
- TOTAL VOLUME PROVIDED — 58,616 CU FT

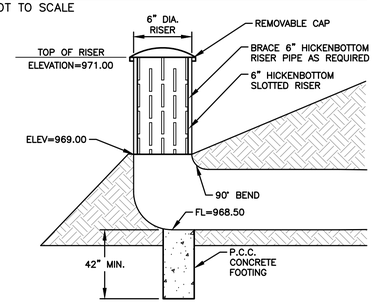
DISCHARGE POINT #2 TO AN UNNAMED TRIBUTARY OF LITTLE BEAVER CREEK ±750 FT
- TOTAL AREA DISTURBED TO DISCHARGE POINT — 12.78 ACRES
- STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) — 46,008 CU FT
- VOLUME PROVIDED IN SILT FENCE (4,024 LF @ 10 CU FT/LF) — 40,240 CU FT
- VOLUME PROVIDED IN TSB #2 — 59,674 CU FT
- TOTAL VOLUME PROVIDED — 99,914 CU FT

DISCHARGE POINT #3 TO AN UNNAMED TRIBUTARY OF LITTLE BEAVER CREEK ±250 FT
- TOTAL AREA DISTURBED TO DISCHARGE POINT — 4.45 ACRES
- STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) — 16,020 CU FT
- VOLUME PROVIDED IN SILT FENCE (2,997 LF @ 10 CU FT/LF) — 29,970 CU FT
- TOTAL VOLUME PROVIDED — 29,970 CU FT



PERMANENT STAND PIPE DETAIL - ST-2

NOT TO SCALE



NOTE: INSTALL FILTER FABRIC AROUND BOTTOM HALF OF STANDPIPE AND INSTALL TEMPORARY EROSION STONE AROUND PIPE FOR PROTECTION. IN ORDER TO CONVERT SEDIMENT BASIN INTO A PERMANENT FINAL CONDITION, REMOVE THE FILTER FABRIC AND EROSION STONE AROUND THE STANDPIPE AND CLEAN OUT SEDIMENT AROUND PIPE.

INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PERVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

DETAIL 'A'

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: JMM | TECH: JDS

CIVIL DESIGN ADVANTAGE

BROOKSIDE VILLAGE PLAT 1
EROSION AND SEDIMENT CONTROL PLAN
GRIMES, IOWA

7.0

2201.009

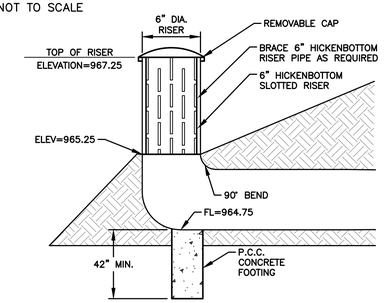
FILE: H:\2022\2201009\DWG\2201009-SWPPP.DWG
PLOTTED: 10/20/2022 10:25 PM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

BROOKSIDE VILLAGE PLAT 1

EROSION AND SEDIMENT CONTROL PLAN

PERMANENT STAND PIPE DETAIL - ST-4

NOT TO SCALE



NOTE: INSTALL FILTER FABRIC AROUND BOTTOM HALF OF STANDPIPE AND INSTALL TEMPORARY EROSION STONE AROUND PIPE FOR PROTECTION. IN ORDER TO CONVERT SEDIMENT BASIN INTO A PERMANENT FINAL CONDITION, REMOVE THE FILTER FABRIC AND EROSION STONE AROUND THE STANDPIPE AND CLEAN OUT SEDIMENT AROUND PIPE.

INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PERVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

DETAIL 'B'

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

BROOKSIDE VILLAGE PLAT 1
EROSION AND SEDIMENT CONTROL PLAN
GRIMES, IOWA

CIVIL DESIGN ADVANTAGE

7.1

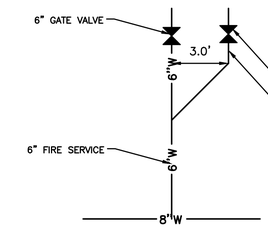
2201.009

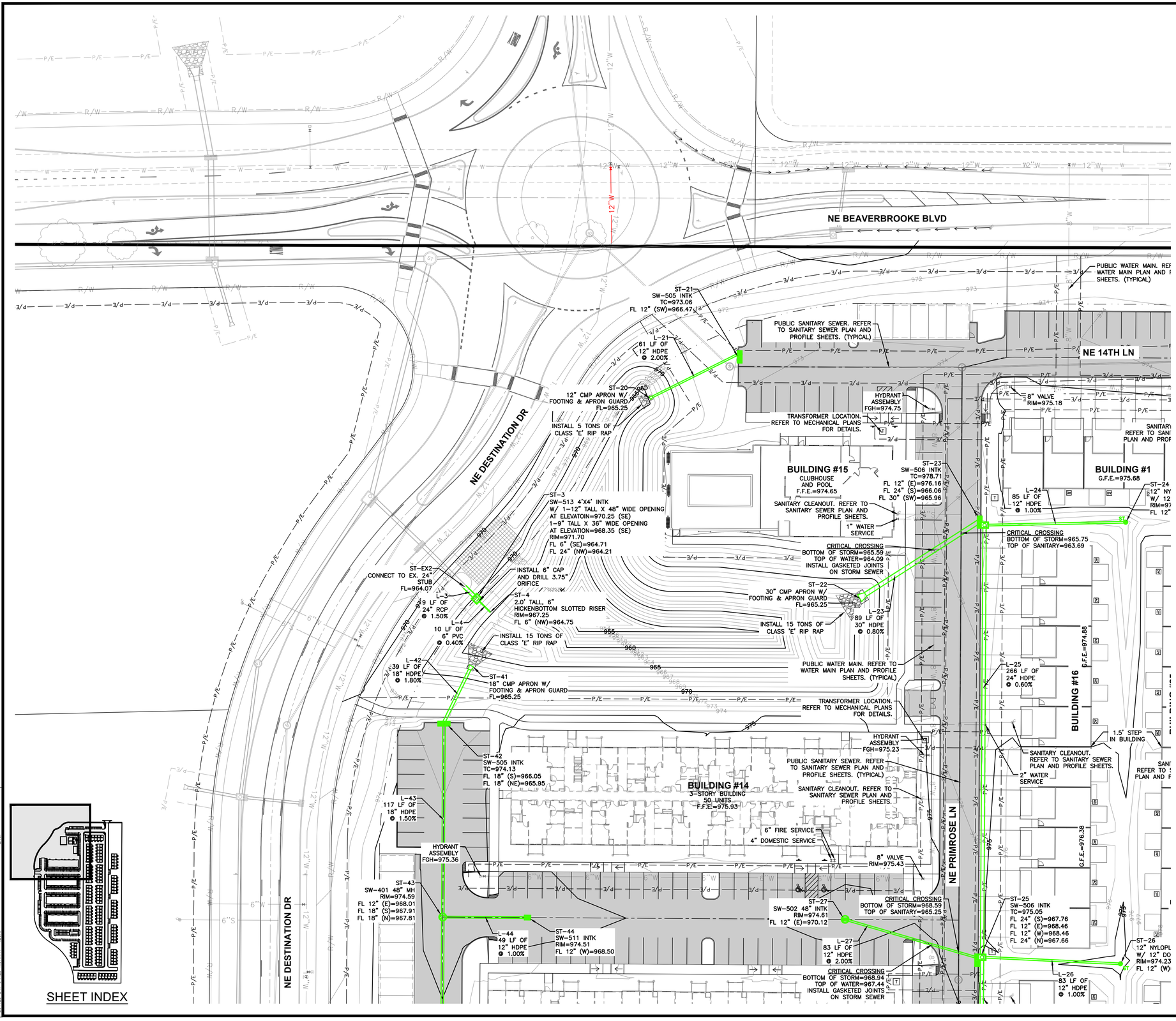
FILE: H:\2022\2201009\DWG\2201009-SWPPP.DWG
PLOTTED: 10/20/2022 10:23 PM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

UTILITY NOTES

1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
2. FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
3. PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
4. BACKFILL ALL UTILITY TRENCHES ACCORDING TO THE CITY OF GRIMES STANDARD CONSTRUCTION SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
5. MAINTAIN A MINIMUM OF 5.5' COVER OVER ALL WATERMAINS.
6. ALL UTILITIES SHALL BE STUBBED TO 5 FEET FROM BUILDINGS. REFER TO ARCHITECTURAL PLANS FOR DESIGN FROM 5' OUTSIDE OF BUILDING FACE.
7. ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES.
8. ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF GRIMES PLUMBING CODE.
9. 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN.
10. MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
11. WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
12. ALL WATERMAIN WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH THE CITY OF GRIMES STANDARD CONSTRUCTION SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
13. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
14. PRIVATE UTILITIES TO BE INSTALLED PER THE CITY OF GRIMES STANDARD CONSTRUCTION SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2003 INTERNATIONAL PLUMBING CODE. CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS.
15. OWNER IS RESPONSIBLE FOR MAINTENANCE OF PRIVATE DETENTION FACILITIES AND PRIVATE STORM SEWER.
16. ALL PROPOSED WATERMAIN AND SANITARY SEWER WILL BE PUBLIC, SEE PLAN AND PROFILE PLANS FOR SANITARY SEWER, WATERMAIN AND CRITICAL CROSSING INFORMATION.
17. 4" WATER METERS WILL BE REQUIRED FOR ALL BUILDINGS.
18. ALL VALVES IN PAVEMENT SHALL BE SLIDE TYPE.
19. ALL CURB STOPS IN PAVEMENT SHALL HAVE A TWO-PIECE PENTAGON NUT STYLE CAP.

APARTMENT WATER SERVICE DETAIL





SHEET INDEX

SCALE
0' 15' 30' 60'

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: JMM | TECH: JDS

CIVIL DESIGN ADVANTAGE

BROOKSIDE VILLAGE PLAT 1

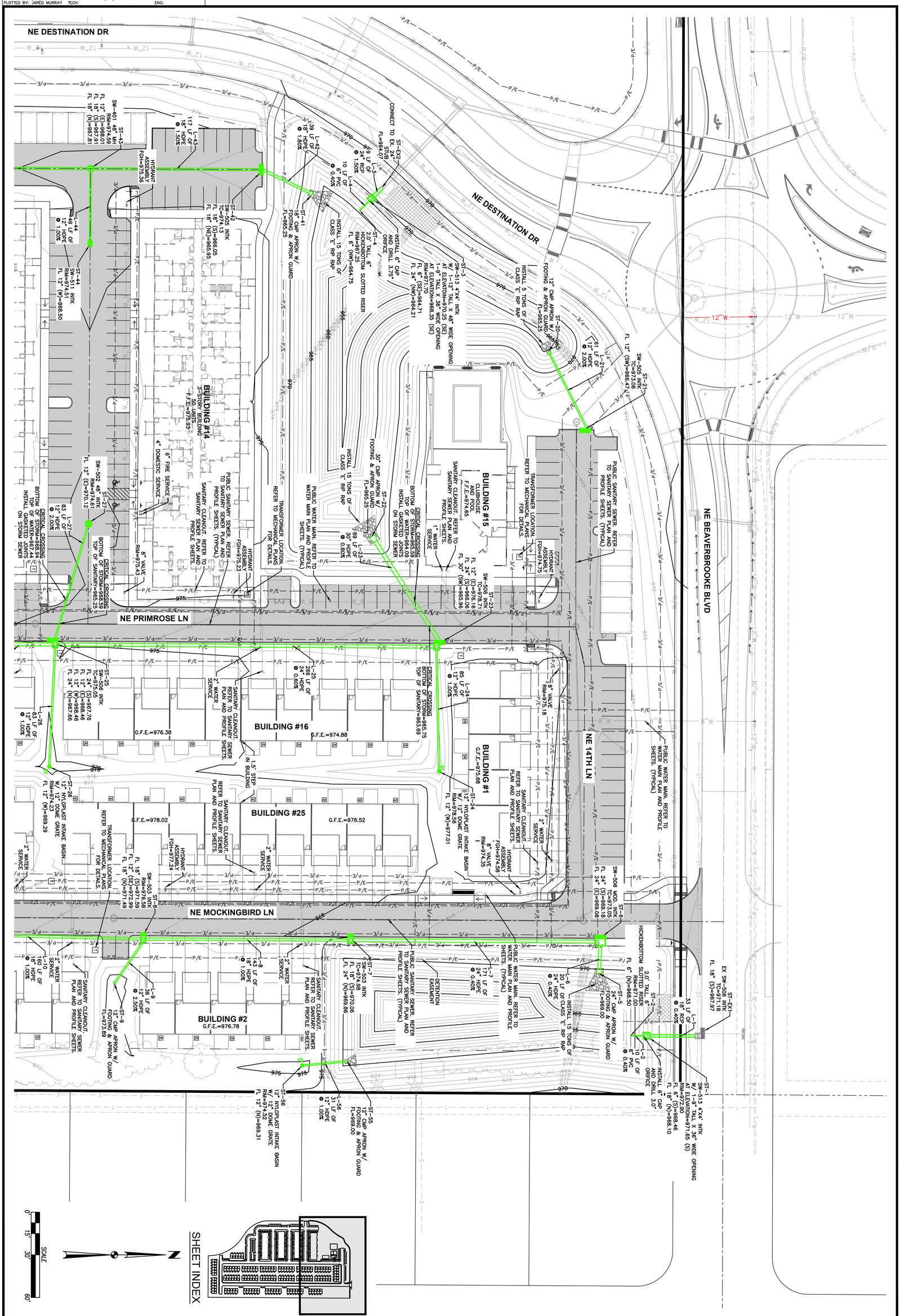
GRIMES, IOWA

UTILITY PLAN

8.0

2201.009

FILE: P:\2022\2201009\DWG\SITE\2201009-UTILITY PLAN.DWG
PLOT DATE: 10/20/2022 10:25 PM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG.



BROOKSIDE VILLAGE PLAT 1

UTILITY PLAN

GRIMES, IOWA

8.1

2201.009

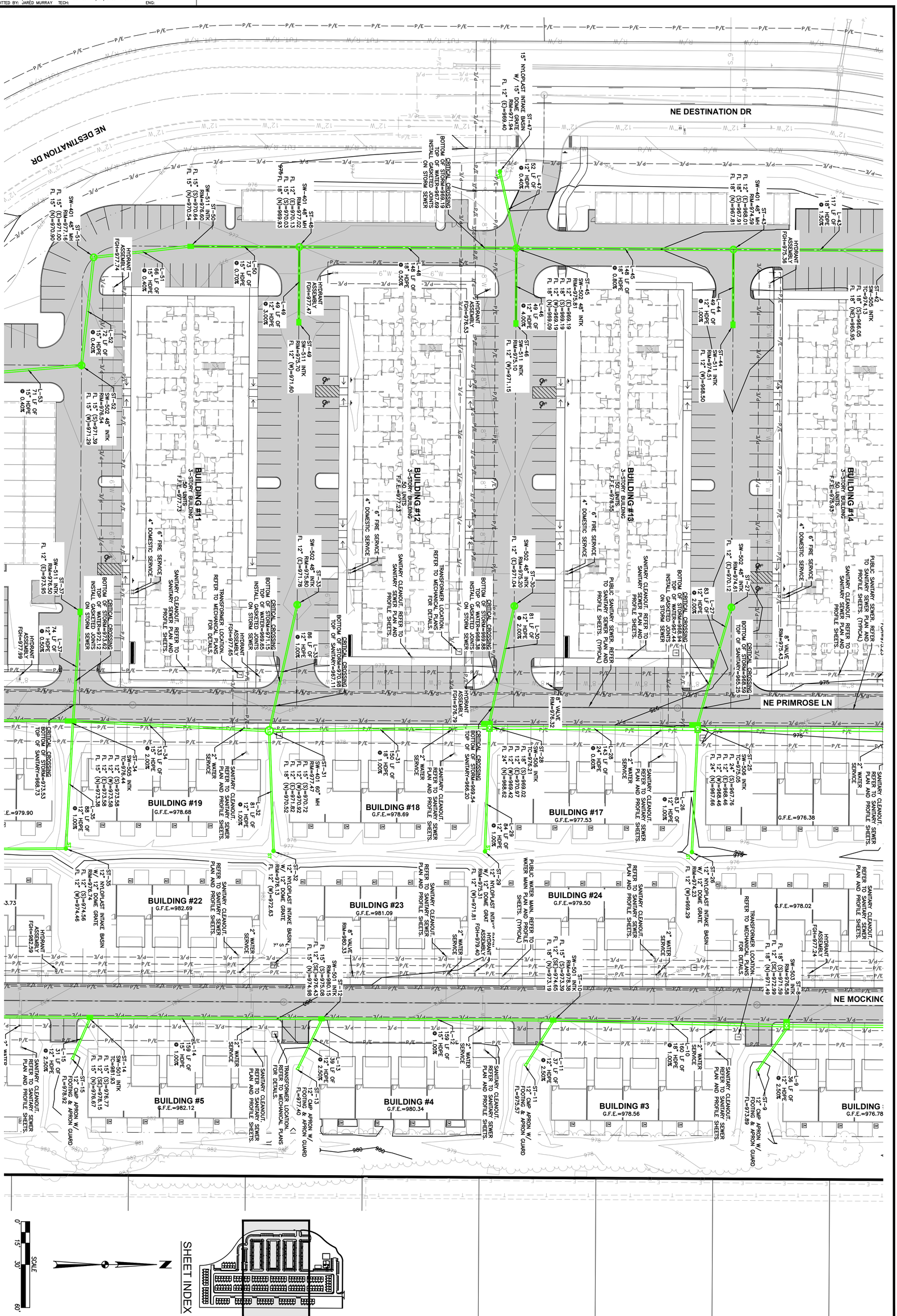
CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

FILE: H:\2022\2201009\DWG\SITE\2201009-UTILITY PLAN.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:25 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:



4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

BROOKSIDE VILLAGE PLAT 1

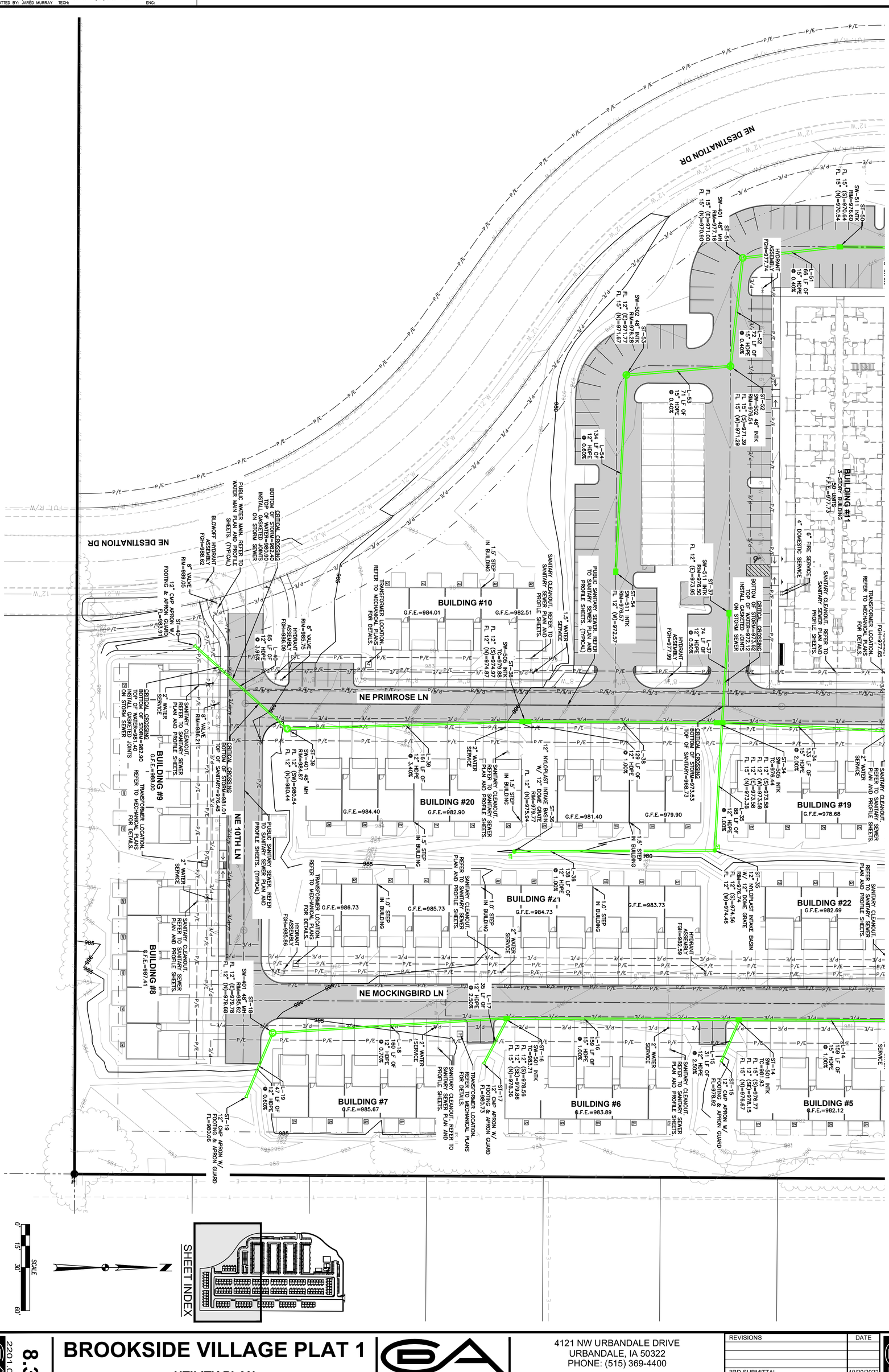
UTILITY PLAN

GRIMES, IOWA | CIVIL DESIGN ADVANTAGE | ENGINEER: JMM | TECH: JDS

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

8.2

2201.009



8.3	
2201.009	

BROOKSIDE VILLAGE PLAT 1

UTILITY PLAN

GRIMES, IOWA

CIVIL DESIGN ADVANTAGE

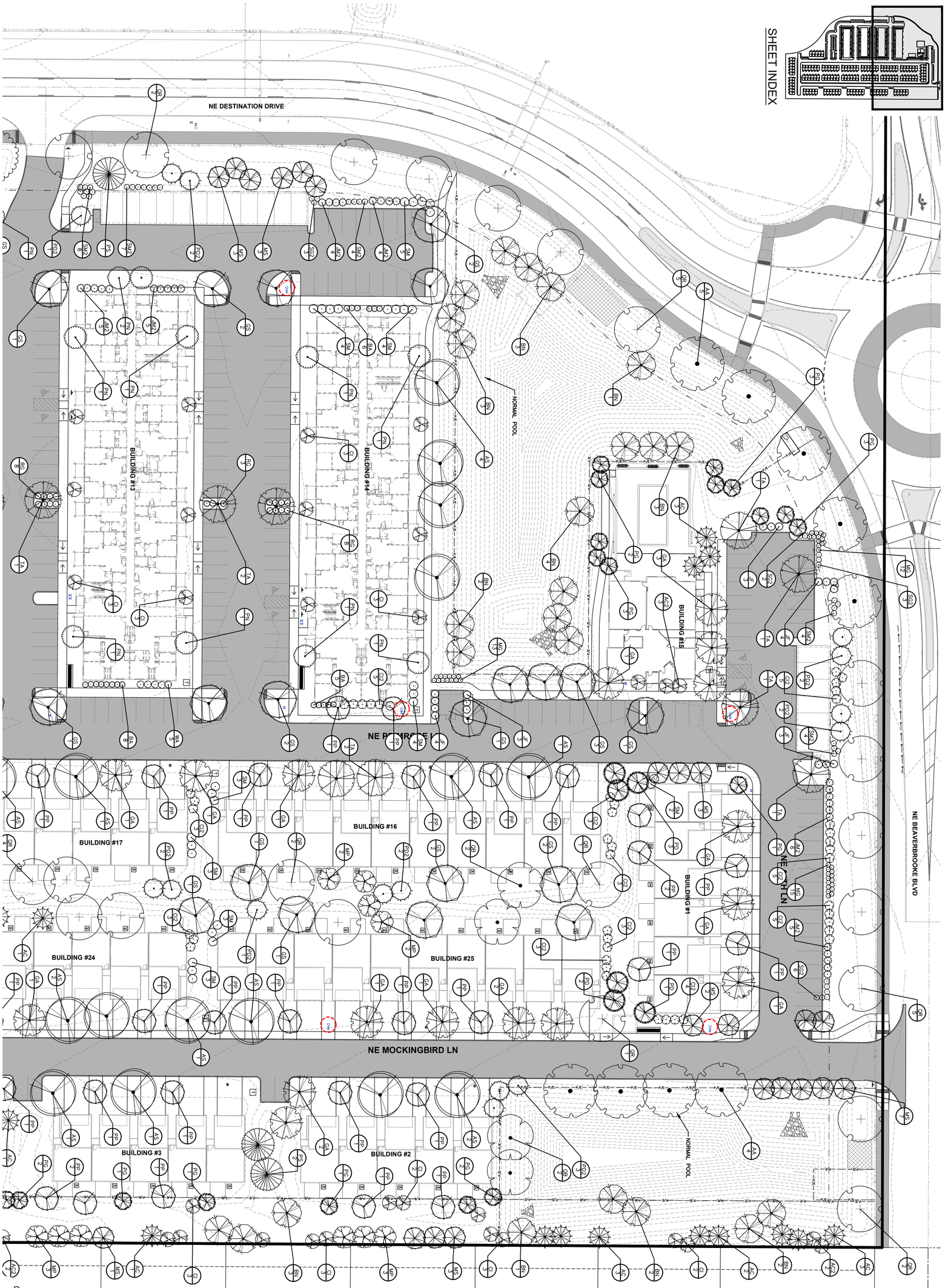
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

FILE: H:\2022\2201009\DWG\SITE\2201009-UTILITY PLAN.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:25 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:

FILE: H:\2022\2201009\DWG\SITE\2201009-LANDSCAPE.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:25 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:



BROOKSIDE VILLAGE PLAT 1

LANDSCAPE PLAN

GRIMES, IOWA

CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

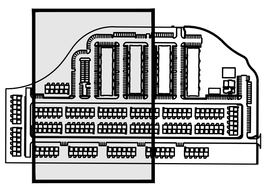
REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

2201.009

9.0

FILE: H:\2022\2201009\DWG\SITE\2201009-LANDSCAPE.DWG
FILE DATE: 10/20/22 DATE PLOTTED: 10/20/2022 10:26 PM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG:

SHEET INDEX



BUILDING #10
BUILDING #11
BUILDING #12
BUILDING #20
BUILDING #19
BUILDING #18
BUILDING #21
BUILDING #22
BUILDING #23
BUILDING #7
BUILDING #6
BUILDING #5
BUILDING #4

SCALE 0 15 30 60

BROOKSIDE VILLAGE PLAT 1

LANDSCAPE PLAN

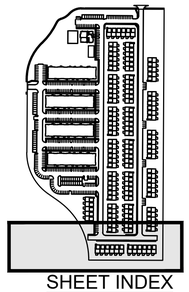
GRIMES, IOWA

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: JMM
TECH: JDS

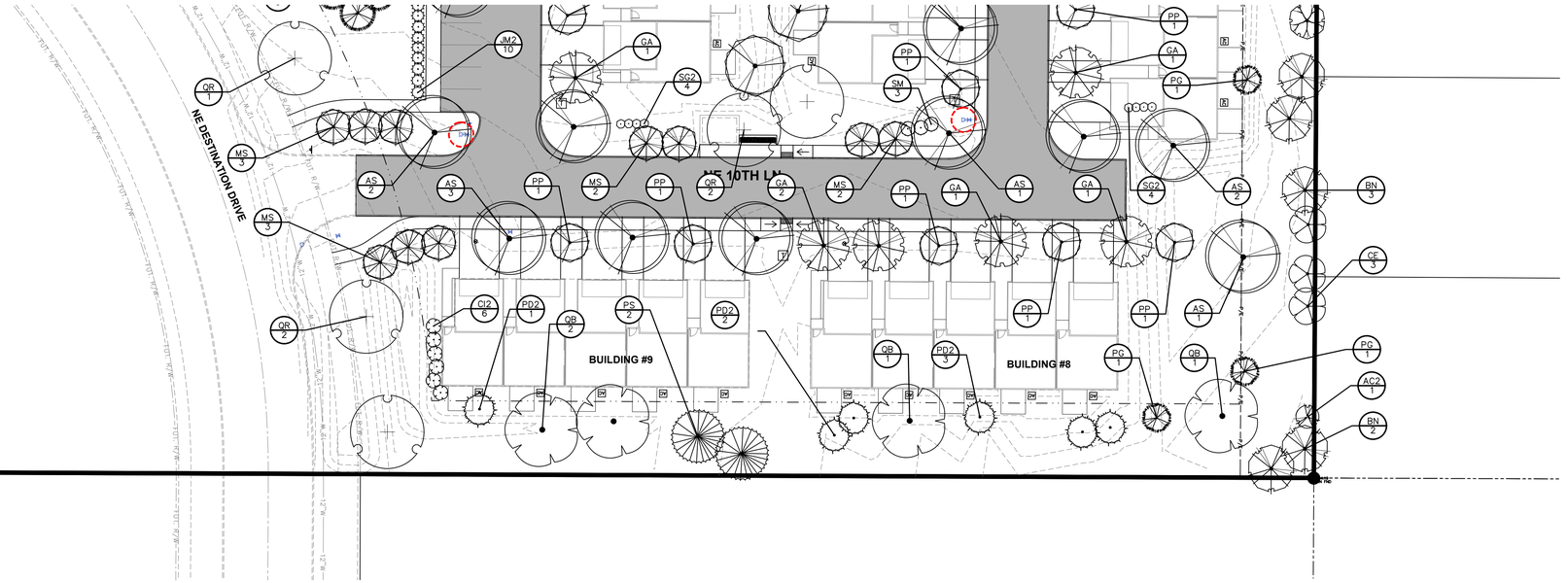
REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

2201.009

9.1



SHEET INDEX



LANDSCAPE NOTES

1. LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
2. THE 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
3. TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
4. ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, VOIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS; TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
5. BACKFILL TO TOP OF CURB. (MINUS 1 1/2" FOR SOD, IF REQ.)
6. SOD ALL DISTURBED AREAS AS DIRECTED BY OWNER.
7. WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
8. SHREDDED HARDWOOD MULCH SHALL BE PLACED AROUND ALL TREES, SHRUBS AND IN ALL PLANTING BEDS TO A (MIN) DEPTH OF 3".
9. ALL EDGING SHALL BE SPADE CUT EDGE.
10. PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY, THE DRAWING SHALL PREVAIL IF ANY CONFLICTS ARISE.
11. ALL DEBRIS SPILLED IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY.
12. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
13. CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN TO OWNER, IF REQUESTED, FOR APPROVAL.

LANDSCAPE REQUIREMENTS

R-3 MEDIUM DENSITY
SITE AREA: 183,894 SF
OPEN SPACE REQUIRED (40%): 73,558 SF

REQUIRED:
1 TREES/ 1,000 SF: 75
1 SHRUB / 500 SF: 75

R-3 HIGH DENSITY
SITE AREA: 631,108 SF
OPEN SPACE REQUIRED (40%): 252,443 SF

REQUIRED:
2 TREES/ 1,000 SF: 505
1 SHRUB / 500 SF: 505

COMBINED LANDSCAPE REQUIRED:
TREES: 580
SHRUBS: 580

COMBINED LANDSCAPE PROVIDED:
EVERGREEN TREES: 118
ORNAMENTAL TREES: 133
OVERSTORY TREES: 329
SHRUBS: 580

EAST BUFFER REQUIRED (1320 LF):
1 EVERGREEN, 2 ORNAMENTAL, AND 1 OVERSTORY TREE PER EVERY 50 L.F.*
EVERGREEN TREES: 27
ORNAMENTAL TREES: 53
OVERSTORY TREES: 27

EVERGREEN TREES: 28
ORNAMENTAL TREES: 53
OVERSTORY TREES: 35

*BUFFER PLANT QUANTITIES ARE INCUDED IN THE OVERALL TOTAL QUANTITIES.

PLANT SCHEDULE

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	38	White Fir	Abies concolor	B&B, 6' HEIGHT
PD	12	Douglas Fir	Pseudotsuga menziesii	B&B, 6' HEIGHT
PD2	29	Black Hills White Spruce	Picea glauca 'Densata'	B&B, 6' HEIGHT
PG	30	Blue Colorado Spruce	Picea pungens 'Glauca'	B&B, 6' HEIGHT
PS	9	White Pine	Pinus strobus	B&B, 6' HEIGHT

ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC2	14	Canadian Serviceberry	Amelanchier canadensis	B&B, 5' HEIGHT
CE	7	Eastern Redbud Multi-trunk	Cercis canadensis	B&B, 1.5" CALIPER
CI	41	Thornless Cockspur Hawthorn	Crataegus crus-galli inermis	B&B, 6' HEIGHT
MP	16	Prairifire Crab Apple	Malus x 'Prairifire'	B&B, 1.5" CALIPER
MS	34	Spring Snow Crab Apple	Malus x 'Spring Snow'	B&B, 1.5" CALIPER
PN	21	Newport Flowering Plum	Prunus cerasifera 'Newport'	B&B, 1.5" CALIPER

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AA	13	Autumn Blaze Red Maple	Acer rubrum 'Autumn Blaze'	B&B, 2.5" CALIPER
AS	45	Autumn Spire Red Maple	Acer rubrum 'Autumn Spire'	B&B, 2" CALIPER
BN	35	River Birch Multi-Trunk	Betula nigra	B&B, 2" CALIPER
CO	8	Common Hackberry	Celtis occidentalis	B&B, 2.5" CALIPER
GA	39	Autumn Gold Maidenhair Tree	Ginkgo biloba 'Autumn Gold'	B&B, 1.5" CALIPER
GS	40	Skyline Honey Locust	Gleditsia triacanthos inermis 'Skyline'	B&B, 2" CALIPER
PP	69	Persian Parrotia	Parrotia persica	B&B, 1.5" CALIPER
QB	17	Swamp White Oak	Quercus bicolor	B&B, 2.5" CALIPER
QR	40	Red Oak	Quercus rubra	B&B, 2.5" CALIPER
TA	23	American Linden	Tilia americana	B&B, 2" CALIPER

SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
BA	37	Dwarf Red Leaf Japanese Barberry	Berberis thunbergii 'Atropurpurea Nana'	5 GAL
CI2	108	Isanti Red Twig Dogwood	Cornus sericea 'Isanti'	5 GAL
CR	5	Huron Gray Dogwood	Cornus racemosa 'Hurzam'	5 GAL
JF	56	Sea Green Juniper	Juniperus chinensis 'Sea Green'	5 GAL
JM	6	Sea of Gold Pfitzer Juniper	Juniperus x pfitzeriana 'Monsan' TM	5 GAL
JM2	66	Maney Juniper	Juniperus chinensis 'Maneyi'	5 GAL
JS	2	Moonglow Juniper	Juniperus scopulorum 'Moonglow'	5 GAL
RG	45	Gro-Low Fragrant Sumac	Rhus aromatica 'Gro-Low'	5 GAL
SG2	22	Goldflame Spirea	Spiraea x bumalda 'Goldflame'	5 GAL
SM	70	Dwarf Korean Lilac	Syringa meyeri 'Palibin'	5 GAL
SM2	45	Miss Kim Korean Lilac	Syringa patula 'Miss Kim'	5 GAL
WA	17	Wine & Roses Weigela	Weigela florida 'Alexandra' TM	5 GAL

GRASSES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
MG	101	Eulalia Grass	Miscanthus sinensis 'Gracillimus'	3 GAL

N

SCALE
0' 15' 30' 60'

REVISIONS	DATE
3RD SUBMITTAL	10/20/2022
2ND SUBMITTAL	09/29/2022
1ST SUBMITTAL	09/06/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JMM | TECH: JDS

BROOKSIDE VILLAGE PLAT 1

LANDSCAPE PLAN

GRIMES, IOWA

CIVIL DESIGN ADVANTAGE

9.2

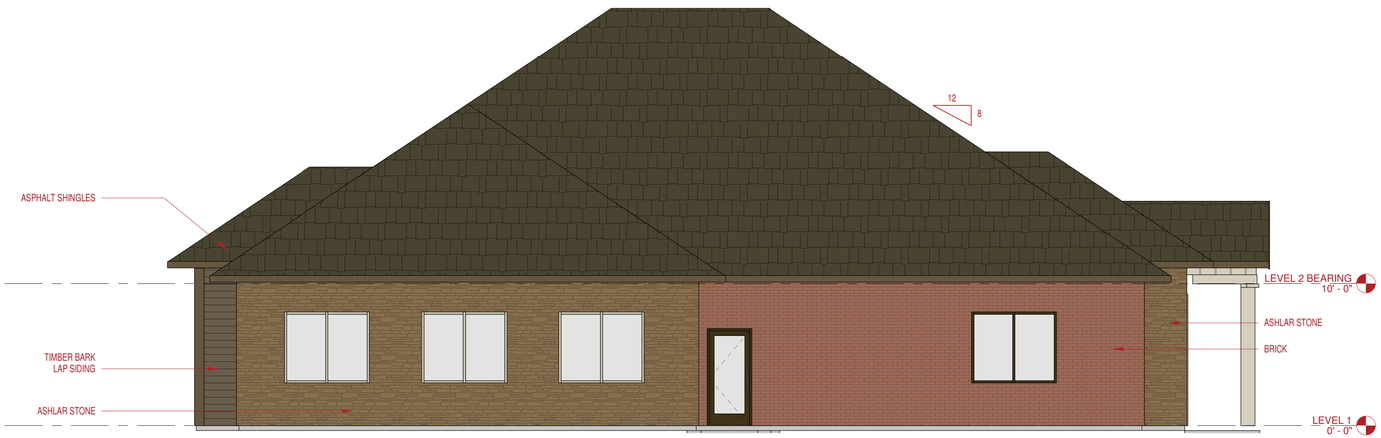
2201.009

FILE: N:\2022\2201009\DWG\SITE\2201009-LANDSCAPE.DWG
PLOT DATE: 10/20/2022 10:28 PM
PLOTTED BY: JARED MURRAY
TECH:
COMMENT:
ENG:

D1 FRONT
3/16" = 1'-0"

B1 LEFT
3/16" = 1'-0"

A1 BACK
3/16" = 1'-0"



A4 RIGHT
3/16" = 1'-0"

EXTERIOR SIDING PERCENTAGE FRONT		
Area	SIDING PERCENTAGE	Material
375 SF	57%	ASHLAR STONE
32 SF	5%	BOARD AND BATTEN
193 SF	30%	BRICK
54 SF	8%	LAP SIDING

EXTERIOR SIDING PERCENTAGE RIGHT		
Area	SIDING PERCENTAGE	Material
334 SF	48%	ASHLAR STONE
330 SF	47%	BRICK
36 SF	5%	LAP SIDING

EXTERIOR SIDING PERCENTAGE LEFT		
Area	SIDING PERCENTAGE	Material
443 SF	65%	ASHLAR STONE
235 SF	35%	LAP SIDING

EXTERIOR SIDING PERCENTAGE BACK		
Area	SIDING PERCENTAGE	Material
456 SF	71%	ASHLAR STONE
186 SF	29%	LAP SIDING

VERIFY ALL DIMENSIONS - ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO INSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTORS RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR NON-STANDARD APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL STANDARD CONSTRUCTION METHODS AND DETAILS NOT SHOWN. SIGNATURE COMPANIES IS NOT RESPONSIBLE FOR ANY CONSTRUCTION METHODS, DETAILS, OR FAILURE COMMITTED BY ANY EMPLOYEE OR SUBCONTRACTOR WHILE ON THE JOB SITE.

50 DD | 10/20/22 | TJO | #101

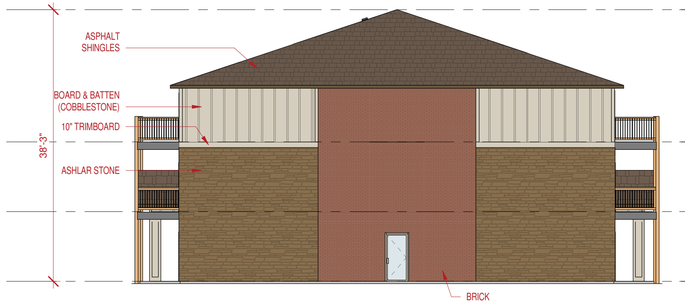
GRIMES CLUBHOUSE | SIOUX FALLS, SD

SIGNATURE COMPANIES LLC

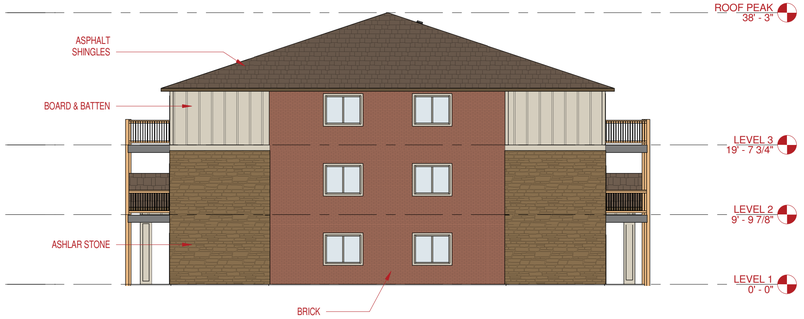
CLUBHOUSE - ELEVATIONS | 3/16" = 1'-0" | A1.2

D1 FRONT ELEVATION - Colored
3/32" = 1'-0"

*FIVE ARCHITECTURAL TREATMENTS:
#2 POPOUTS
#5 COLOR, TEXTURE OR MATERIAL CHANGE INCLUDING, BUT NOT LIMITED TO, BRICK OR STONE
#6 ARCHITECTURAL BANDING
#8 AWNINGS
#13 COLUMNS OR PILLARS



B1 RIGHT ELEVATION - Colored
3/32" = 1'-0"



B4 LEFT ELEVATION
3/32" = 1'-0"

EXTERIOR SIDING PERCENTAGE FRONT		
Area	SIDING PERCENTAGE	Material
2215 SF	44%	ASHLAR STONE
1071 SF	21%	BOARD AND BATTEN
1764 SF	35%	BRICK

EXTERIOR SIDING PERCENTAGE BACK		
Area	SIDING PERCENTAGE	Material
2076 SF	41%	ASHLAR STONE
1000 SF	20%	BOARD AND BATTEN
2034 SF	40%	BRICK

EXTERIOR SIDING PERCENTAGE LEFT		
Area	SIDING PERCENTAGE	Material
496 SF	32%	ASHLAR STONE
249 SF	16%	BOARD AND BATTEN
812 SF	52%	BRICK

EXTERIOR SIDING PERCENTAGE RIGHT		
Area	SIDING PERCENTAGE	Material
734 SF	44%	ASHLAR STONE
347 SF	21%	BOARD AND BATTEN
592 SF	35%	BRICK

A1 BACK ELEVATION - Colored
3/32" = 1'-0"

VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR NON-STANDARD APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL STANDARD CONSTRUCTION DETAILS AND CODE COMPLIANCE. SIGNATURE COMPANIES LLC IS NOT RESPONSIBLE FOR LOSS, DAMAGE OR INJURY THAT MAY OCCUR DUE TO ANY DEVIATION FROM THESE PLANS. ANY CHANGES MADE TO THESE PLANS MUST BE APPROVED BY SIGNATURE COMPANIES LLC PRIOR TO CONSTRUCTION. ANY UNAUTHORIZED CHANGES VOID ANY AND ALL LIABILITY. REFERENCE COVER FOR ARCHITECTURAL STAMP.

TJO

#101

REVISION SET 9/27/2022

DEVELOPMENT

GRIMES APARTMENTS

GRIMES, IA

SIGNATURE COMPANIES LLC

COLORED ELEVATIONS

3/32" = 1'-0"

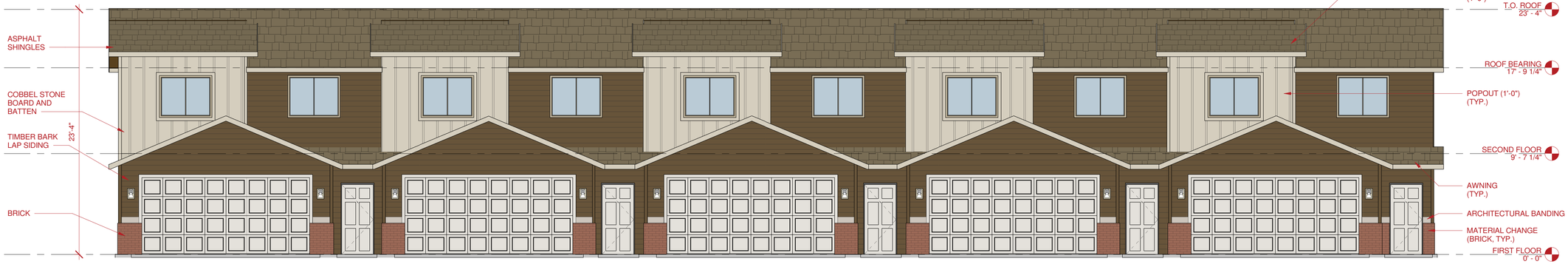
A1.2

EXTERIOR SIDING PERCENTAGE FRONT		
Area	SIDING PERCENTAGE	Material
453 SF	28%	BOARD AND BATTEN
72 SF	4%	BRICK
1087 SF	67%	LAP SIDING

EXTERIOR SIDING PERCENTAGE SIDE		
Area	SIDING PERCENTAGE	Material
129 SF	19%	BRICK
565 SF	81%	LAP SIDING

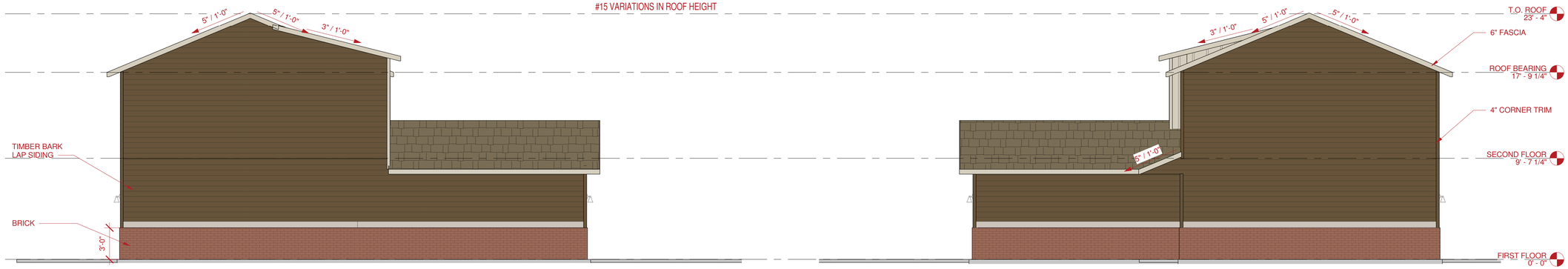
EXTERIOR SIDING PERCENTAGE OTHER SIDE		
Area	SIDING PERCENTAGE	Material
48 SF	7%	BOARD AND BATTEN
129 SF	18%	BRICK
547 SF	76%	LAP SIDING

EXTERIOR SIDING PERCENTAGE BACK		
Area	SIDING PERCENTAGE	Material
282 SF	14%	BRICK
1758 SF	86%	LAP SIDING



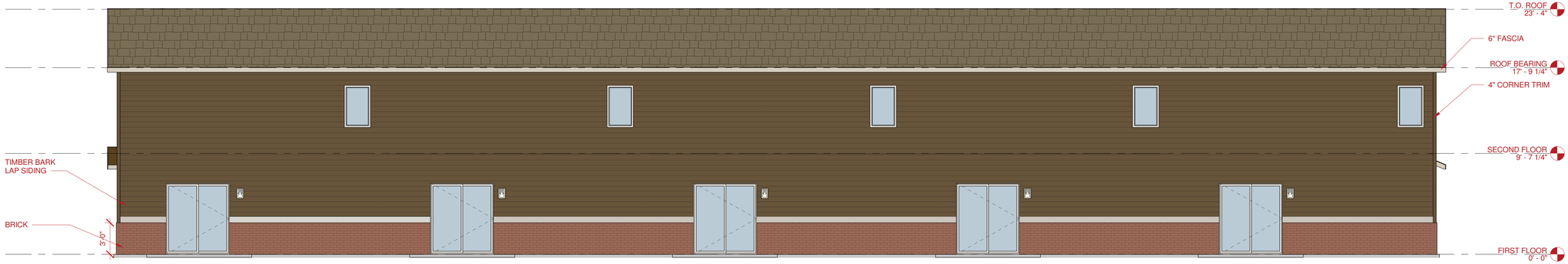
C1 FRONT COLORED
3/16" = 1'-0"

*FIVE ARCHITECTURAL TREATMENTS:
#2 POPOUTS
#5 COLOR, TEXTURE OR MATERIAL CHANGE INCLUDING, BUT NOT LIMITED TO, BRICK OR STONE
#6 ARCHITECTURAL BANDING
#8 AWNINGS
#15 VARIATIONS IN ROOF HEIGHT



B1 SIDE COLORED
3/16" = 1'-0"

B3 OTHER SIDE COLORED
3/16" = 1'-0"



A1 BACK COLORED
3/16" = 1'-0"

VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR NON-STANDARD APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL STANDARD CONSTRUCTION DETAILS NOT SHOWN. SIGNATURE COMPANIES, LLC IS NOT RESPONSIBLE FOR ANY CONSTRUCTION DETAILS, OR ERRORS IN SUCH DETAILS, THAT ARE NOT SHOWN ON THESE PLANS. SIGNATURE COMPANIES, LLC ASSUMES NO RESPONSIBILITY FOR ANY CONSTRUCTION DETAILS NOT SHOWN ON THESE PLANS.

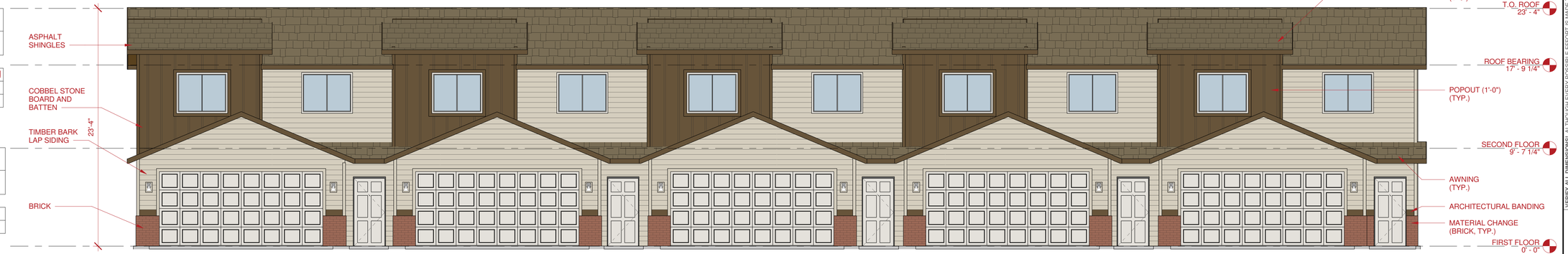
MNB | #2001
100 CD SET | 10/10/2022
SIGNATURE COMPANIES LLC
WHITFIELD W5
GRIMES, IA
COLORD ELEVATIONS
A1.2
3/16" = 1'-0"

EXTERIOR SIDING PERCENTAGE FRONT		
Area	SIDING PERCENTAGE	Material
452 SF	28%	BOARD AND BATTEN
72 SF	4%	BRICK
1086 SF	67%	LAP SIDING

EXTERIOR SIDING PERCENTAGE SIDE		
Area	SIDING PERCENTAGE	Material
129 SF	19%	BRICK
565 SF	81%	LAP SIDING

EXTERIOR SIDING PERCENTAGE OTHER SIDE		
Area	SIDING PERCENTAGE	Material
48 SF	7%	BOARD AND BATTEN
129 SF	18%	BRICK
547 SF	76%	LAP SIDING

EXTERIOR SIDING PERCENTAGE BACK		
Area	SIDING PERCENTAGE	Material
287 SF	14%	BRICK
1769 SF	86%	LAP SIDING

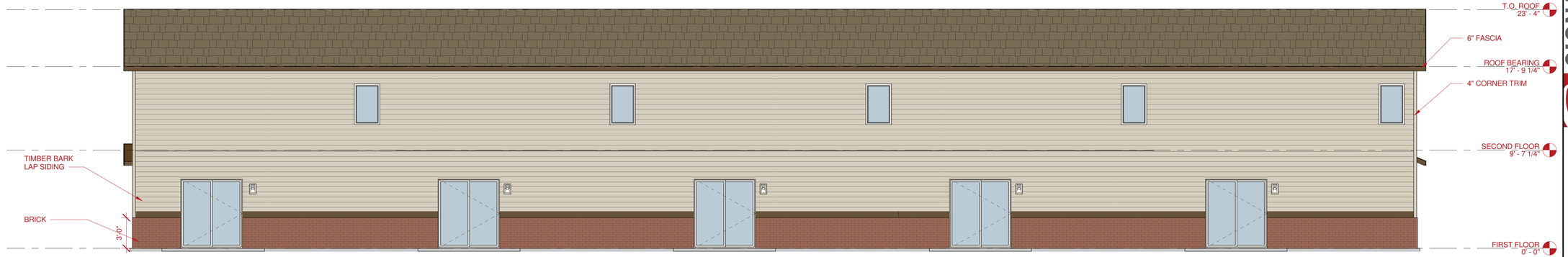


C1 FRONT COLORED
3/16" = 1'-0"

*FIVE ARCHITECTURAL TREATMENTS:
#2 POPOUTS
#5 COLOR, TEXTURE OR MATERIAL CHANGE INCLUDING, BUT NOT LIMITED TO, BRICK OR STONE
#6 ARCHITECTURAL BANDING
#8 AWNINGS
#15 VARIATIONS IN ROOF HEIGHT

B1 SIDE COLORED
3/16" = 1'-0"

B3 OTHER SIDE COLORED
3/16" = 1'-0"



A1 BACK COLORED
3/16" = 1'-0"

VERIFY ALL DIMENSIONS! ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR NON-STAGMO APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ENGINEERING ALL STRUCTURAL CONNECTIONS & MEMBERS FOR STAGMO CONDITIONS. SIGNATURE COMPANIES LLC IS NOT RESPONSIBLE FOR ANY STRUCTURAL ISSUES THAT ARISE IN STAGMO CONDITIONS. ANY APPLICATION OF STAGMO MUST BE ENGINEERED BY A LICENSED ENGINEER.

MNB

#2001

10/10/2022

100 CD SET

WHITFIELD W5
GRIMES, IA

SIGNATURE COMPANIES LLC

COLORD ELEVATIONS

A1.2

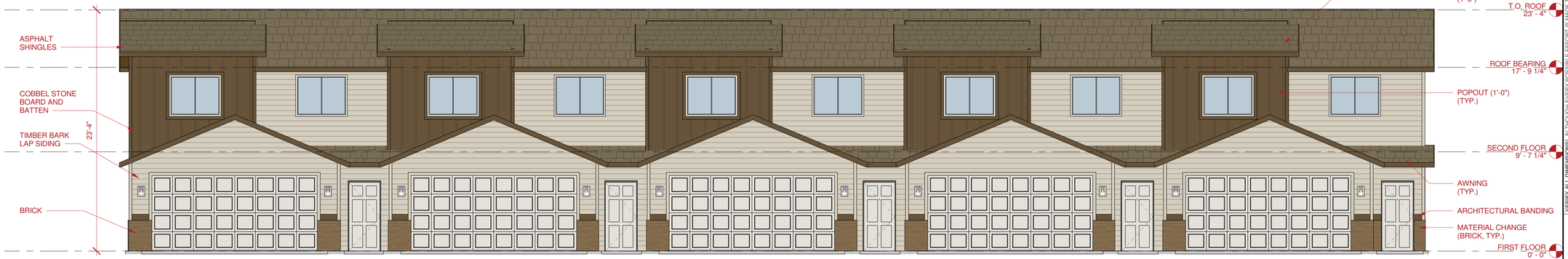
3/16" = 1'-0"

EXTERIOR SIDING PERCENTAGE FRONT		
Area	SIDING PERCENTAGE	Material
71 SF	4%	ASHLAR STONE
452 SF	28%	BOARD AND BATTEN
1085 SF	67%	LAP SIDING

EXTERIOR SIDING PERCENTAGE SIDE		
Area	SIDING PERCENTAGE	Material
130 SF	19%	ASHLAR STONE
565 SF	81%	LAP SIDING

EXTERIOR SIDING PERCENTAGE OTHER SIDE		
Area	SIDING PERCENTAGE	Material
129 SF	18%	ASHLAR STONE
48 SF	7%	BOARD AND BATTEN
547 SF	76%	LAP SIDING

EXTERIOR SIDING PERCENTAGE BACK		
Area	SIDING PERCENTAGE	Material
287 SF	14%	ASHLAR STONE
1068 SF	52%	COBBELSTONE
701 SF	34%	LAP SIDING

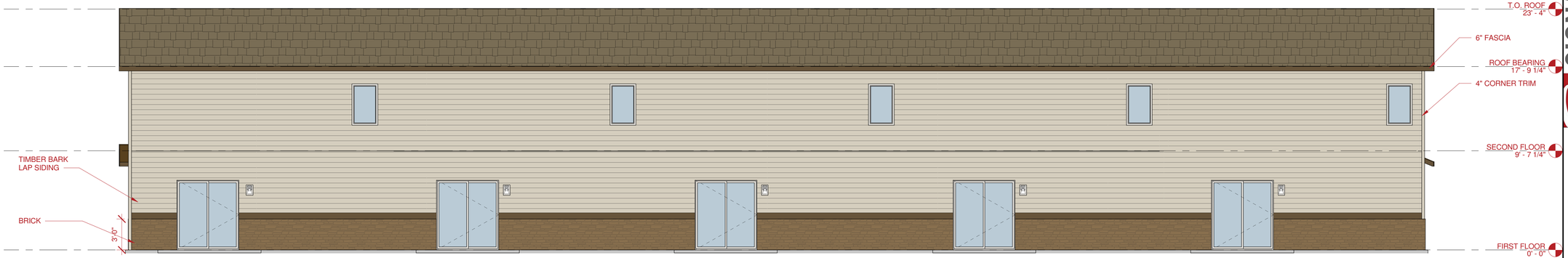


C1 FRONT COLORED
3/16" = 1'-0"

*FIVE ARCHITECTURAL TREATMENTS:
#2 POPOUTS
#5 COLOR, TEXTURE OR MATERIAL CHANGE INCLUDING, BUT NOT LIMITED TO, BRICK OR STONE
#6 ARCHITECTURAL BANDING
#8 AWNINGS
#15 VARIATIONS IN ROOF HEIGHT

B1 SIDE COLORED
3/16" = 1'-0"

B3 OTHER SIDE COLORED
3/16" = 1'-0"



A1 BACK COLORED
3/16" = 1'-0"

VERIFY ALL DIMENSIONS. ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR NON-STAGARD APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. SIGNATURE COMPANIES, LLC IS NOT RESPONSIBLE FOR ANY LOSS, INJURY OR DAMAGE COMMENCING ABOUT ANY APPLICATION OF WHICH YOU ARE UNSURE.

MNB | #2001
10/10/2022
100 CD SET

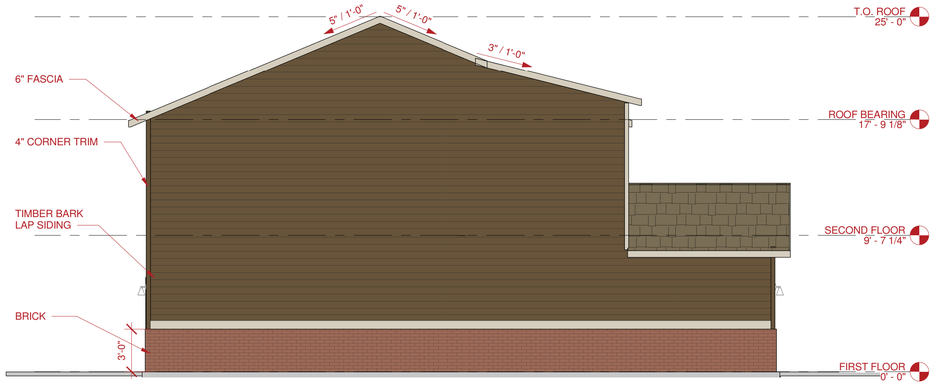
SIGNATURE COMPANIES LLC

WHITFIELD W5
GRIMES, IA

COLORD ELEVATIONS
A1.2
3/16" = 1'-0"

C1 FRONT COLORED
3/16" = 1'-0"

*FIVE ARCHITECTURAL TREATMENTS:
#2 POPOUTS
#5 COLOR, TEXTURE OR MATERIAL CHANGE INCLUDING, BUT NOT LIMITED TO, BRICK OR STONE
#6 ARCHITECTURAL BANDING
#8 AWNINGS
#15 VARIATIONS IN ROOF HEIGHT



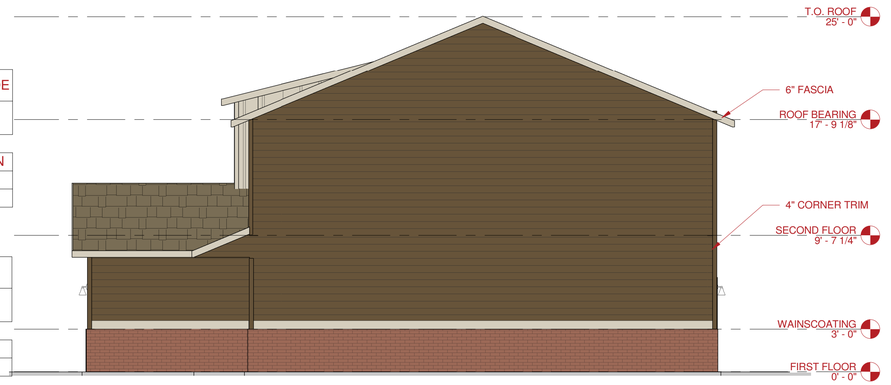
B1 SIDE COLORED
3/16" = 1'-0"

EXTERIOR SIDING PERCENTAGE FRONT		
Area	SIDING PERCENTAGE	Material
475 SF	25%	BOARD AND BATTEN
87 SF	5%	BRICK
1342 SF	71%	LAP SIDING

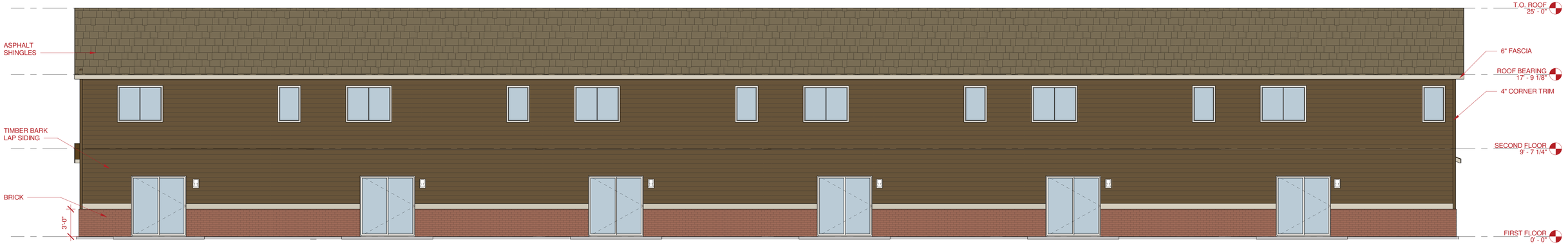
EXTERIOR SIDING PERCENTAGE SIDE		
Area	SIDING PERCENTAGE	Material
128 SF	16%	BRICK
685 SF	84%	LAP SIDING

EXTERIOR SIDING PERCENTAGE OTHER SIDE		
Area	SIDING PERCENTAGE	Material
47 SF	6%	BOARD AND BATTEN
129 SF	15%	BRICK
670 SF	79%	LAP SIDING

EXTERIOR SIDING PERCENTAGE BACK		
Area	SIDING PERCENTAGE	Material
336 SF	15%	BRICK
1944 SF	85%	LAP SIDING



B3 OTHER SIDE COLORED
3/16" = 1'-0"



A1 BACK COLORED
3/16" = 1'-0"

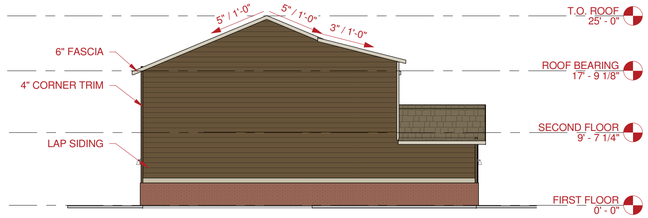
VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR NON-STAGING APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND SHALL REPORT ANY DISCREPANCIES TO SIGNATURE COMPANIES, LLC PRIOR TO BEGINNING WORK. SIGNATURE COMPANIES, LLC IS NOT RESPONSIBLE FOR ANY CONSTRUCTION PERFORMED PRIOR TO APPROVAL OF PLANS BY THE BUILDING DEPARTMENT AND ISSUANCE OF A BUILDING PERMIT. THESE PLANS ARE NOT TO BE USED FOR PERMIT OR CONSTRUCTION UNLESS SIGNED BELOW. SIGNATURE COMPANIES, LLC ASSUMES NO RESPONSIBILITY FOR ANY CONSTRUCTION PERFORMED FROM THESE PLANS WITHOUT OUR SIGNATURE APPEARING BELOW. THESE PLANS ARE COPYRIGHTED AND ARE NOT TO BE REPRODUCED OR ALTERED IN ANY WAY WITHOUT THE EXPRESS WRITTEN PERMISSION OF SIGNATURE COMPANIES, LLC. ANY UNAUTHORIZED USE OF THESE PLANS WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW. SIGNATURE COMPANIES, LLC RETAINS ALL COMMON LAW, STATUTORY AND OTHER RIGHTS, INCLUDING COPYRIGHT, IN THE PLANS. SIGNATURE COMPANIES, LLC ASSUMES NO RESPONSIBILITY FOR ANY CONSTRUCTION PERFORMED FROM THESE PLANS WITHOUT OUR SIGNATURE APPEARING BELOW. THESE PLANS ARE NOT TO BE USED FOR PERMIT OR CONSTRUCTION UNLESS SIGNED BELOW. SIGNATURE COMPANIES, LLC ASSUMES NO RESPONSIBILITY FOR ANY CONSTRUCTION PERFORMED FROM THESE PLANS WITHOUT OUR SIGNATURE APPEARING BELOW. THESE PLANS ARE COPYRIGHTED AND ARE NOT TO BE REPRODUCED OR ALTERED IN ANY WAY WITHOUT THE EXPRESS WRITTEN PERMISSION OF SIGNATURE COMPANIES, LLC. ANY UNAUTHORIZED USE OF THESE PLANS WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW. SIGNATURE COMPANIES, LLC RETAINS ALL COMMON LAW, STATUTORY AND OTHER RIGHTS, INCLUDING COPYRIGHT, IN THE PLANS.

100 CD SET
10/10/2022
MNB
#2001
HICKORY H6
GRIMES, IA
SIGNATURE COMPANIES LLC
COLORED ELEVATIONS
A1.2
3/16" = 1'-0"

C1 FRONT COLORED
1" = 10'-0"

*FIVE ARCHITECTURAL TREATMENTS:
#2 POPOUTS
#5 COLOR, TEXTURE OR MATERIAL CHANGE INCLUDING, BUT NOT LIMITED TO, BRICK OR STONE
#6 ARCHITECTURAL BANDING
#8 AWNINGS
#15 VARIATIONS IN ROOF HEIGHT



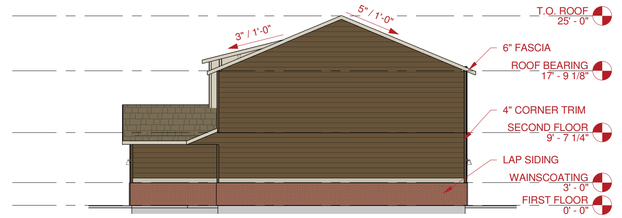
B1 SIDE COLORED
1" = 10'-0"

EXTERIOR SIDING PERCENTAGE FRONT		
Area	SIDING PERCENTAGE	Material
850 SF	24%	BOARD AND BATTEN
153 SF	4%	BRICK
2467 SF	71%	LAP SIDING

EXTERIOR SIDING PERCENTAGE SIDE		
Area	SIDING PERCENTAGE	Material
130 SF	16%	BRICK
688 SF	84%	LAP SIDING

EXTERIOR SIDING PERCENTAGE OTHER SIDE		
Area	SIDING PERCENTAGE	Material
47 SF	6%	BOARD AND BATTEN
129 SF	15%	BRICK
670 SF	79%	LAP SIDING

EXTERIOR SIDING PERCENTAGE BACK		
Area	SIDING PERCENTAGE	Material
616 SF	15%	BRICK
3540 SF	85%	LAP SIDING



B3 OTHER SIDE COLORED
1" = 10'-0"

A1 BACK COLORED
1" = 10'-0"

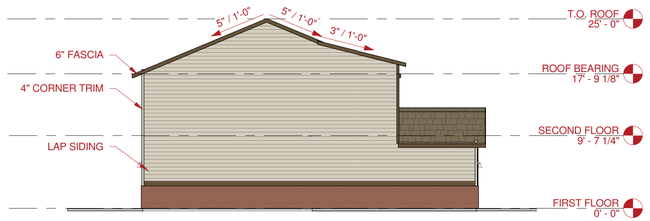
VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR NON-STAGING APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. SIGNATURE COMPANIES IS NOT RESPONSIBLE FOR LOSS, DAMAGE OR INJURY RESULTING FROM ANY APPLICATION FOR WHICH YOU ARE LIABLE.

100 CD SET
10/10/222
MNB
#2001
HICKORY H11
GRIMES, IA
SIGNATURE COMPANIES LLC
COLORED ELEVATIONS
A1.2
1" = 10'-0"

C1 FRONT COLORED
1" = 10'-0"

*FIVE ARCHITECTURAL TREATMENTS:
#2 POPOUTS
#5 COLOR, TEXTURE OR MATERIAL CHANGE INCLUDING, BUT NOT LIMITED TO, BRICK OR STONE
#6 ARCHITECTURAL BANDING
#8 AWNINGS
#15 VARIATIONS IN ROOF HEIGHT



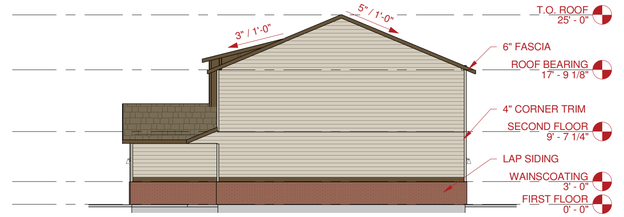
B1 SIDE COLORED
1" = 10'-0"

EXTERIOR SIDING PERCENTAGE FRONT		
Area	SIDING PERCENTAGE	Material
851 SF	25%	BOARD AND BATTEN
153 SF	4%	BRICK
2467 SF	71%	LAP SIDING

EXTERIOR SIDING PERCENTAGE SIDE		
Area	SIDING PERCENTAGE	Material
130 SF	16%	BRICK
685 SF	84%	LAP SIDING

EXTERIOR SIDING PERCENTAGE OTHER SIDE		
Area	SIDING PERCENTAGE	Material
47 SF	6%	BOARD AND BATTEN
129 SF	15%	BRICK
670 SF	79%	LAP SIDING

EXTERIOR SIDING PERCENTAGE BACK		
Area	SIDING PERCENTAGE	Material
616 SF	15%	BRICK
3543 SF	85%	LAP SIDING



B3 OTHER SIDE COLORED
1" = 10'-0"

A1 BACK COLORED
1" = 10'-0"

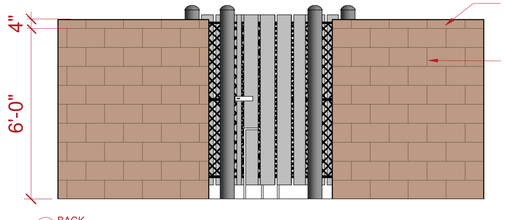
VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR NON-STANDARD APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL STANDARD CONSTRUCTION METHODS. SIGNATURE COMPANIES DOES NOT ASSUME RESPONSIBILITY FOR LOSS, DAMAGE OR INJURY ARISING FROM THE IMPROPER USE OF THESE PLANS. ANY MODIFICATIONS MADE TO THESE PLANS MUST BE APPROVED BY SIGNATURE COMPANIES. ANY UNAUTHORIZED USE OF THESE PLANS WITHOUT THE EXPRESS WRITTEN CONSENT OF SIGNATURE COMPANIES WILL BE AT THE SOLE RISK OF THE PARTY USING OR RELYING UPON THE PLANS, AND SIGNATURE COMPANIES WILL BE HELD HARMLESS FOR ANY DAMAGES RESULTING FROM SUCH UNAUTHORIZED USE. BY APPROVING AND PROCEEDING WITH CONSTRUCTION, YOU AGREE TO INDEMNIFY AND HOLD HARMLESS SIGNATURE COMPANIES FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE USE OF THESE PLANS. YOU ALSO AGREE TO ASSUME ALL LIABILITY FOR ANY CHANGES YOU MAKE TO THESE PLANS. YOU ALSO AGREE TO DEFEND, AT YOUR OWN EXPENSE, ANY SUIT BROUGHT AGAINST SIGNATURE COMPANIES ARISING OUT OF YOUR MODIFICATION OF THESE PLANS. YOU AGREE THAT THE LIABILITY OF SIGNATURE COMPANIES ARISING OUT OF ANY CAUSE WHATSOEVER SHALL NOT EXCEED THE AMOUNT YOU PAID FOR THESE PLANS.

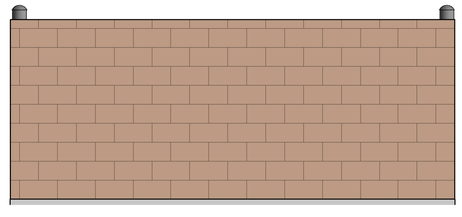
100 CD SET
10/10/222
MNB
#2001

SIGNATURE COMPANIES LLC
HICKORY H11
GRIMES, IA

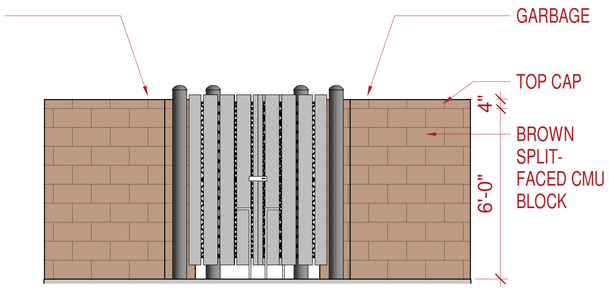
COLORED ELEVATIONS
A1.2
1" = 10'-0"



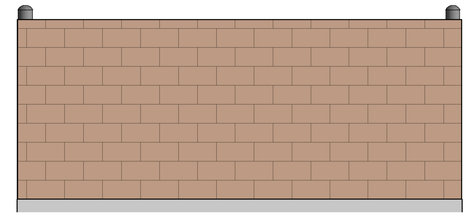
D1 BACK
3/8" = 1'-0"



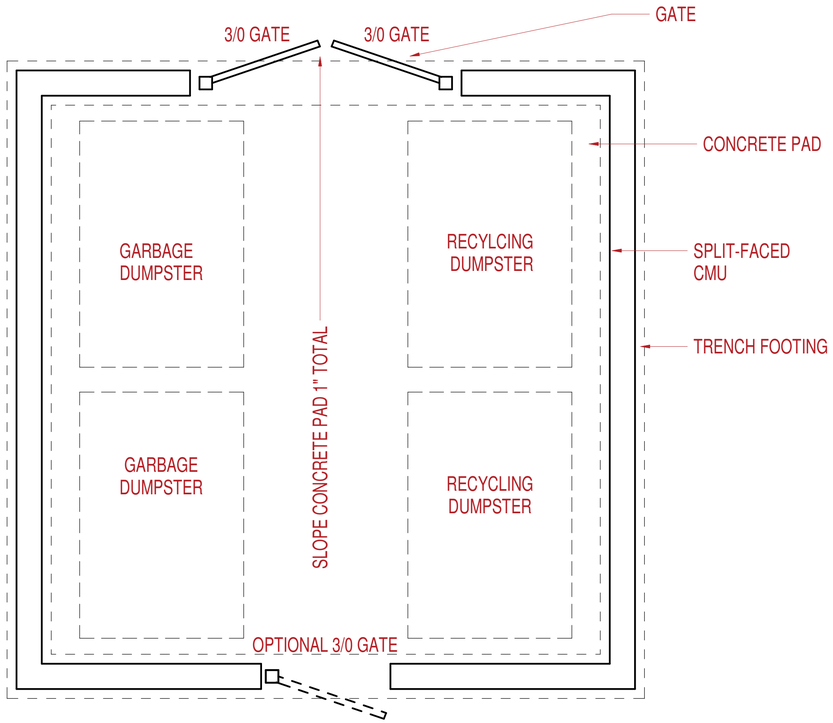
D2 SIDE
3/8" = 1'-0"



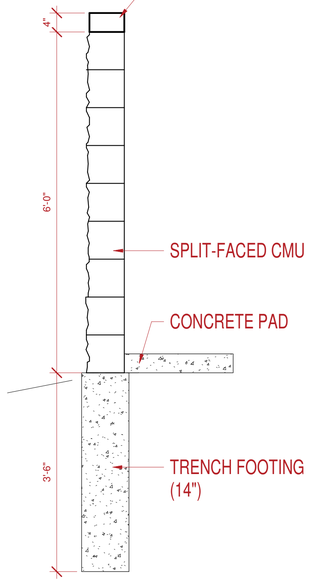
D3 FRONT
3/8" = 1'-0"



D4 OTHER SIDE
3/8" = 1'-0"



A1 FLOOR PLAN - 4 DUMPSTER
1/2" = 1'-0"



A3 FENCE WALL
3/4" = 1'-0"

VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO INSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR ON-STANDARD APPLICATIONS. THE CONTRACTOR SHALL REFER TO APPLICABLE CODES FOR USES NOT DETAILED. THE ENGINEER IS NOT RESPONSIBLE FOR USES UNDER THESE PLANS & ASSUMES NO LIABILITY FOR UNAUTHORIZED APPLICATIONS. ANY APPLICATION OF THESE PLANS ASSUMES YOU ARE LIABLE

MNB | #101 | 10/20/22

SIGNATURE COMPANIES LLC

GARBAGE ENCLOSURE
GRIMES, IA

GARBAGE ENCLOSURE 14'x16'

C1.2 | As indicated

General Notes:

A. Any discrepancies or conflicts found in the various parts of the construction documents shall be brought to the attention of the Architect and the Owner before proceeding with the work.

B. Furniture is provided and installed by others.

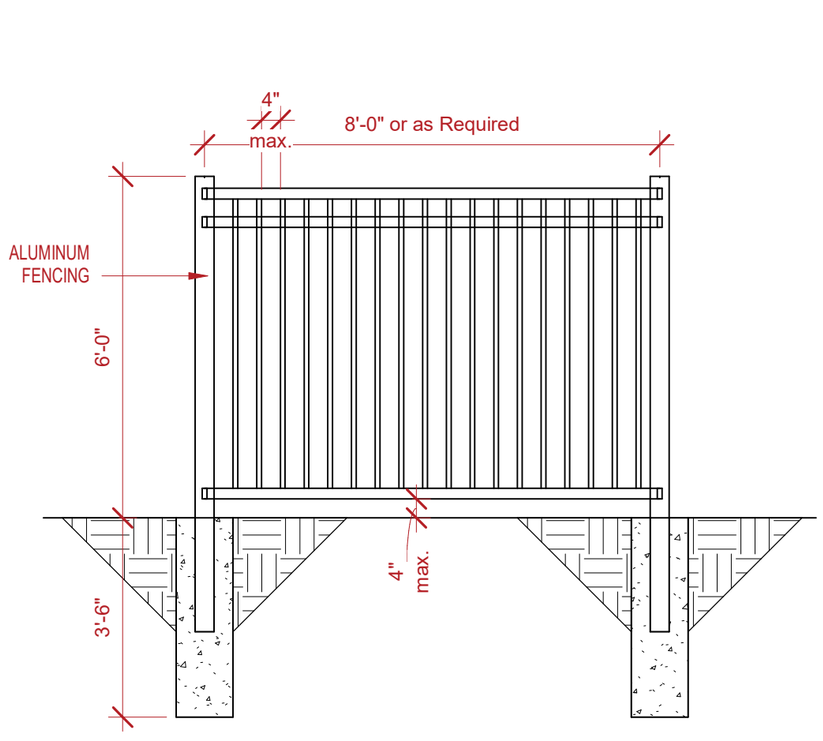
C. Written dimensions take precedence over scaled dimensions. Do not scale the drawings.

D. Contractor & Subcontractors to verify all existing conditions at the project site.

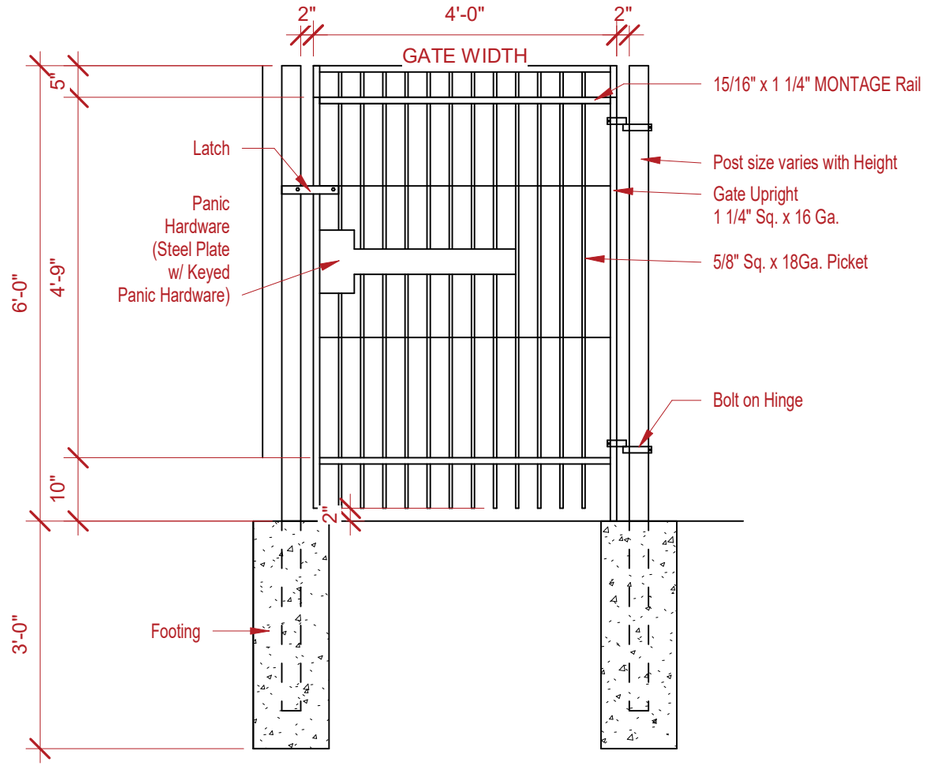
E. All materials & equipment shall be installed per manufacturers instructions.

F. Details shown are typical unless otherwise noted. Similar details apply in similar conditions.

G. Pool Contractor needs to obtain owner permit for pool and associated equipment.



A2 Fence Details
3/8" = 1'-0"



A4 POOL GATE
1/2" = 1'-0"

VERIFY ALL DIMENSIONS: IN THE EVENT IT IS POSSIBLE TO DO SO, THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE PRIOR TO THE START OF CONSTRUCTION. THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTORS RESPONSIBILITY TO CHECK AND CONFIRM ALL FIELD DIMENSIONS AND CONDITIONS PRIOR TO THE START OF CONSTRUCTION. THE DRAWINGS AND DETAIL CORRECTIONS AS FACILITATE STRUCTURAL EFFICIENCIES AND ACCEPTED PRACTICES, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CHANGES. ALL DRAWINGS ARE TO BE CONSIDERED AS INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT. THEY ARE TO BE USED ONLY FOR THE PROJECT AND SITE LISTED AND SHALL NOT BE LOANED, COPIED OR REPRODUCED FOR STANDARD APPLICATIONS NOT SHOWN ON DRAWINGS. PLEASE ASK SIGNATURE COMPANIES ABOUT PURCHASING ADDITIONAL DRAWINGS.

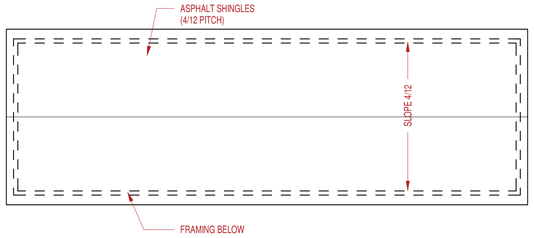
Checker	TJO
#101	10/19/22

SIGNATURE COMPANIES LLC

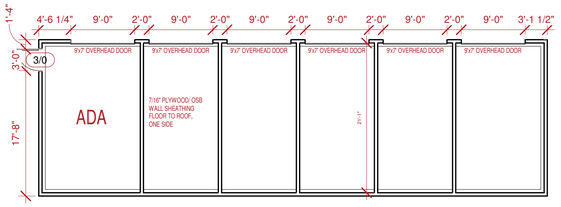
BROOKSIDE VILLAGE
GRIMES, IOWA

A2.3	As indicated
FENCE DETAILS	

No.	Description	Date



D1 ROOF PLAN
3/32" = 1'-0"



C1 FIRST FLOOR
3/32" = 1'-0"

CONCRETE FOUNDATION SQFT	
Type	Length
Foundation - Trench 14"	195'

CONCRETE SLAB	
Type	Area
Concrete - 4"	1407 SF

General Notes:

A. Any discrepancies or conflicts found in the various parts of the construction documents shall be brought to the attention of the Architect and the Owner before proceeding with the work.

B. Written dimensions take precedence over scaled dimensions. Do not scale the drawings.

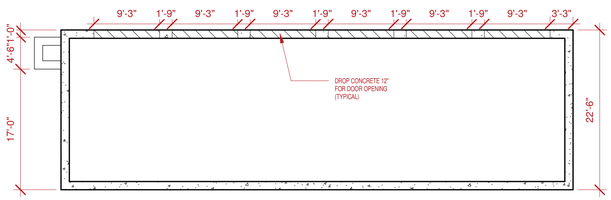
C. Contractor & Subcontractors to verify all existing conditions at the project site.

D. All materials & equipment shall be installed per manufacturers instructions.

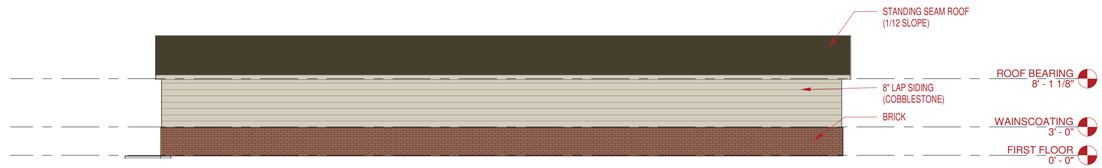
E. 12" Gabel Ends & 16" Overhangs

F. All Horizontal Trim (1x8 Hardi Siding)

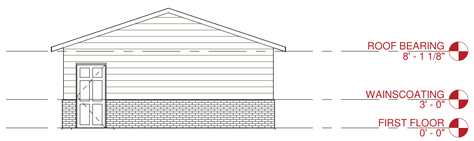
C3 FRONT ELEVATION COLORED
1/8" = 1'-0"



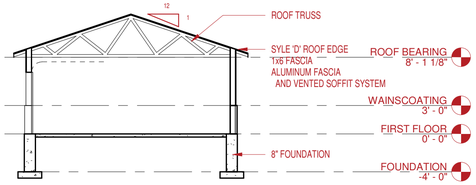
B1 FOUNDATION
3/32" = 1'-0"



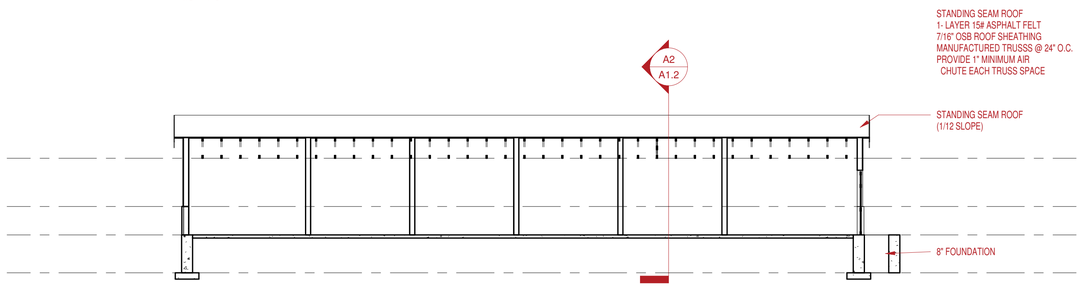
B3 BACK ELEVATION COLORED
1/8" = 1'-0"



A1 SIDE ELEVATION
1/8" = 1'-0"



A2 SHORT SECTION
1/8" = 1'-0"



A3 LONG SECTION
1/8" = 1'-0"

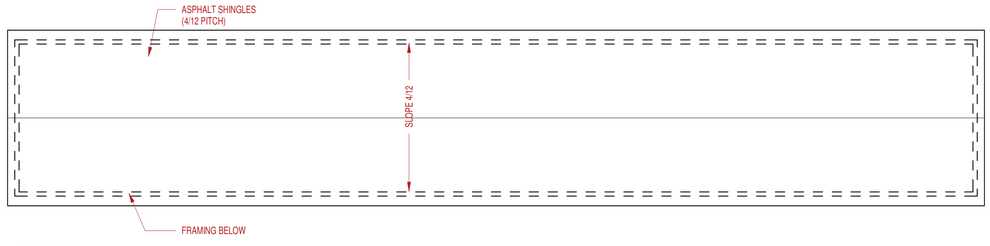
VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR ION STANDARD APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ADDITIONAL STRUCTURAL MEMBERS AND CONNECTIONS AS REQUIRED BY LOCAL CODES. SIGNATURE COMPANIES LLC IS NOT RESPONSIBLE FOR USES, PRACTICES AND ACTIVITIES IN CONNECTION WITH THE CONSTRUCTION OF ANY BUILDING FOR WHICH YOU ARE LIABLE.

MNB | 9/28/22 | #101

BROOKSIDE VILLAGE
GRIMES, IOWA
SIGNATURE COMPANIES LLC

GARAGE 6 PLANS
As indicated
A1.2



D1 ROOF PLAN
3/32" = 1'-0"

CONCRETE FOUNDATION SQFT	
Type	Length
Foundation - Trench 14"	324'

CONCRETE SLAB	
Type	Area
Concrete - 4"	2701 SF

General Notes:

A. Any discrepancies or conflicts found in the various parts of the construction documents shall be brought to the attention of the Architect and the Owner before proceeding with the work.

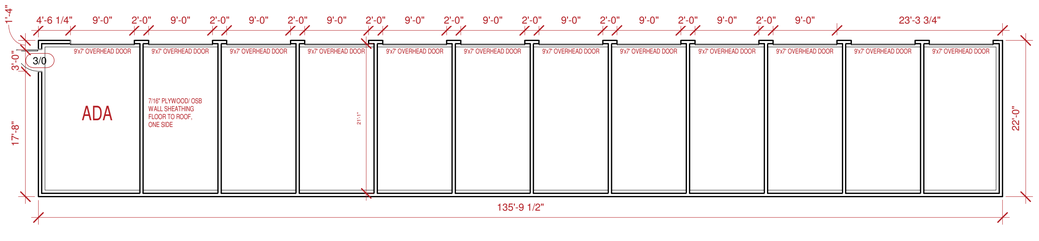
B. Written dimensions take precedence over scaled dimensions. Do not scale the drawings.

C. Contractor & Subcontractors to verify all existing conditions at the project site.

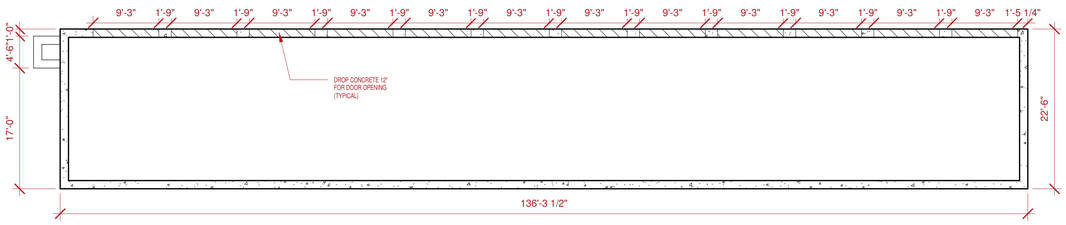
D. All materials & equipment shall be installed per manufacturers instructions.

E. 12" Gabel Ends & 16" Overhangs

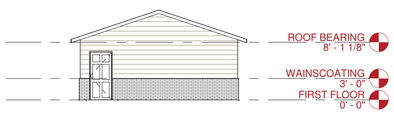
F. All Horizontal Trim (1x8 Hardi Siding)



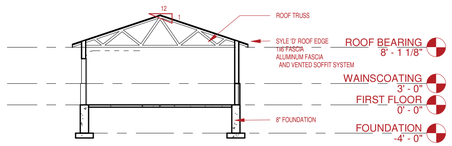
C1 FIRST FLOOR
3/32" = 1'-0"



B1 FOUNDATION
3/32" = 1'-0"



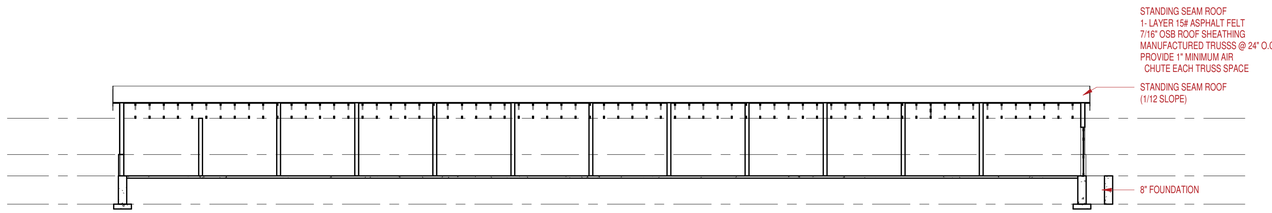
A1 SIDE ELEVATION
3/32" = 1'-0"



A2 SHORT SECTION
3/32" = 1'-0"

C3 FRONT ELEVATION COLORED
3/32" = 1'-0"

B3 BACK ELEVATION COLORED
3/32" = 1'-0"



A3 LONG SECTION
3/32" = 1'-0"

VERIFY ALL DIMENSIONS - ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO INSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR ON-SITE BUILDING APPLICATIONS. THE COMPANY DOES NOT ASSUME RESPONSIBILITY FOR ANY CONSTRUCTION PERFORMED FROM THESE PLANS BY ANY PARTY OTHER THAN OUR OWN CREWS. THE PURCHASER IS RESPONSIBLE FOR USING THESE PLANS AS A GUIDE TO CONSTRUCTION. ANY APPLICATION FOR WHICH YOU ARE UNSURE

MNB

9/28/22

#101

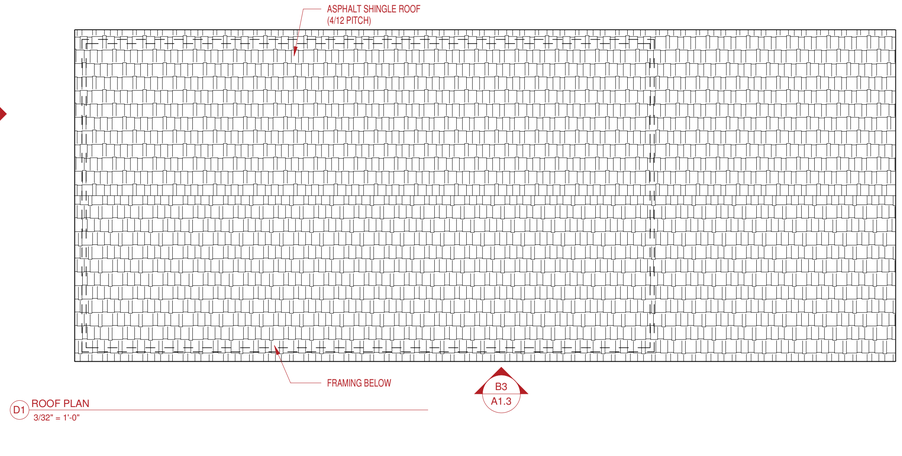
BROOKSIDE VILLAGE
GRIMES, IOWA

SIGNATURE COMPANIES LLC

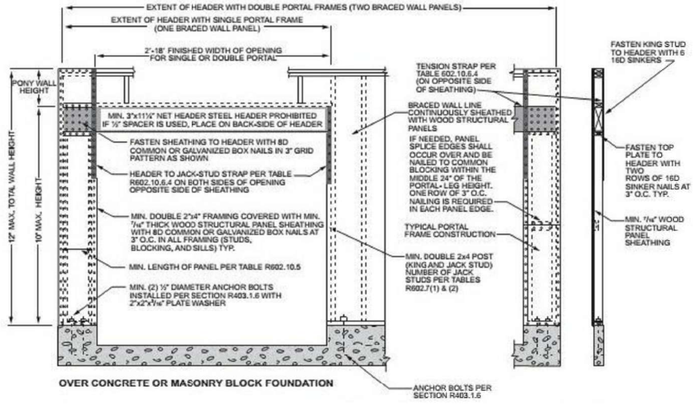
GARAGE 12 PLANS

3/32" = 1'-0"

A1.2



D1 ROOF PLAN
3/32" = 1'-0"



D3 HBA ALTERNATE BRACED WALL PANELS

General Notes:

A. Any discrepancies or conflicts found in the various parts of the construction documents shall be brought to the attention of the Architect and the Owner before proceeding with the work.

B. Written dimensions take precedence over scaled dimensions. Do not scale the drawings.

C. Contractor & Subcontractors to verify all existing conditions at the project site.

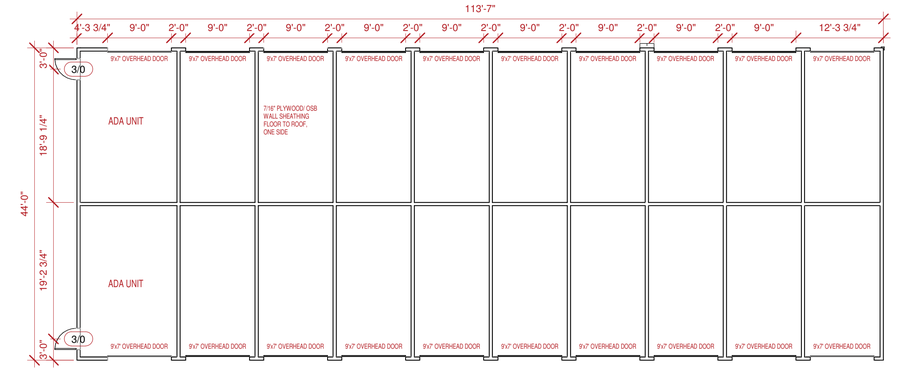
D. All materials & equipment shall be installed per manufacturers instructions.

E. 12" Gabel Ends & 16" Overhangs

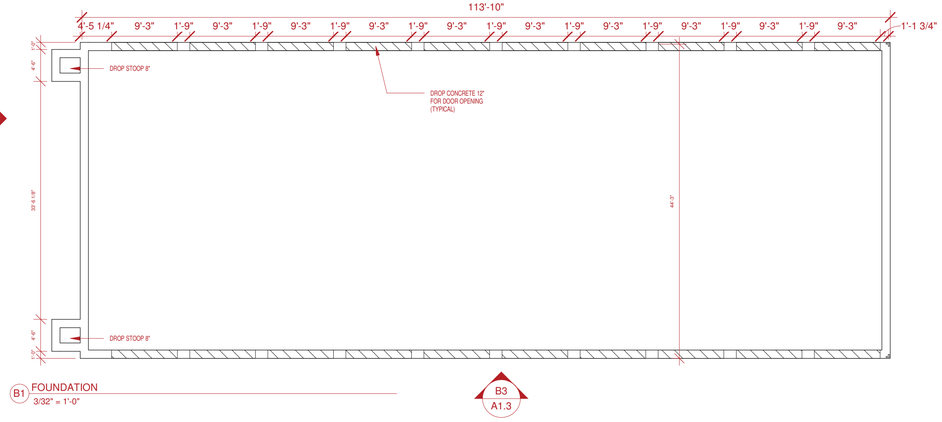
F. All Horizontal Trim (1x8 Hardi Siding)

Concrete Slab	
Type	Area
Concrete - 4"	4839 SF

Trench Footings	
Type	Length
Foundation - Trench 14"	335' - 2"
Grand total: 10	335' - 2"



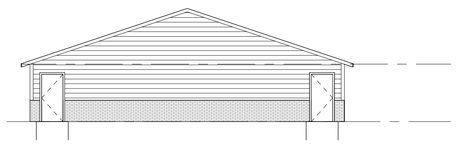
C1 FIRST FLOOR
3/32" = 1'-0"



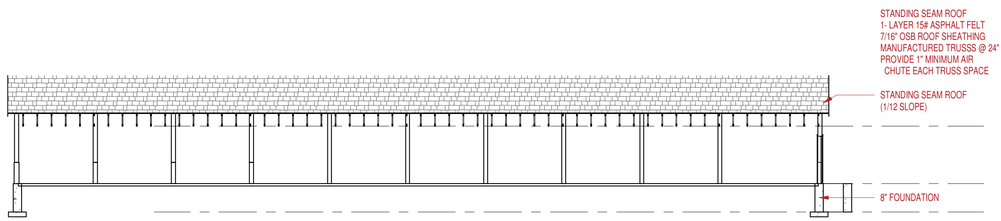
B1 FOUNDATION
3/32" = 1'-0"

C3 FRONT ELEVATION
3/32" = 1'-0"

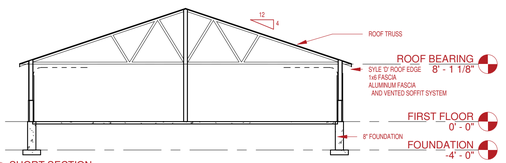
B3 BACK ELEVATION
3/32" = 1'-0"



A1 SIDE ELEVATION
3/32" = 1'-0"



A3 LONG SECTION
3/32" = 1'-0"



A2 SHORT SECTION
3/32" = 1'-0"

VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

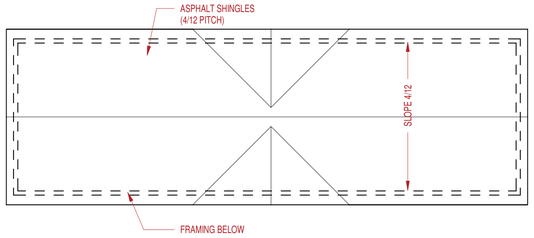
THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL NUMBERS FOR ON-STANDARD APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR USING PROPER & ADEQUATE CONNECTION AND STRUCTURAL MEMBERS FOR ALL APPLICATIONS. THE ARCHITECT IS NOT RESPONSIBLE FOR USING PROPER & ADEQUATE CONNECTION AND STRUCTURAL MEMBERS FOR ANY APPLICATION FOR WHICH YOU ARE LIABLE.

TJO | 100 CD | 9/28/22 | #101

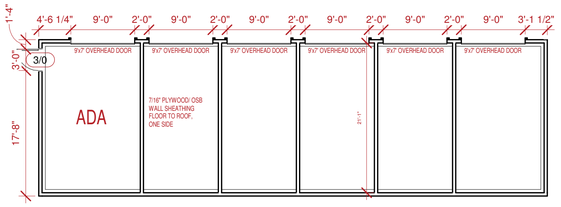
BROOKSIDE VILLAGE
GRIMES, SD

SIGNATURE COMPANIES LLC

GARAGE 20 PLANS | A1.3 | 3/32" = 1'-0"



D1 ROOF PLAN
3/32" = 1'-0"



C1 FIRST FLOOR
3/32" = 1'-0"

CONCRETE FOUNDATION SQFT	
Type	Length
Door Trim	0'
Foundation - Trench 14"	195'

CONCRETE SLAB	
Type	Area
Concrete - 4"	1407 SF

General Notes:

A. Any discrepancies or conflicts found in the various parts of the construction documents shall be brought to the attention of the Architect and the Owner before proceeding with the work.

B. Written dimensions take precedence over scaled dimensions. Do not scale the drawings.

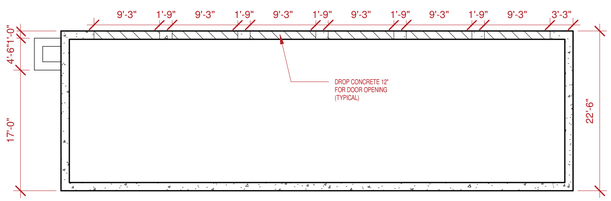
C. Contractor & Subcontractors to verify all existing conditions at the project site.

D. All materials & equipment shall be installed per manufacturers instructions.

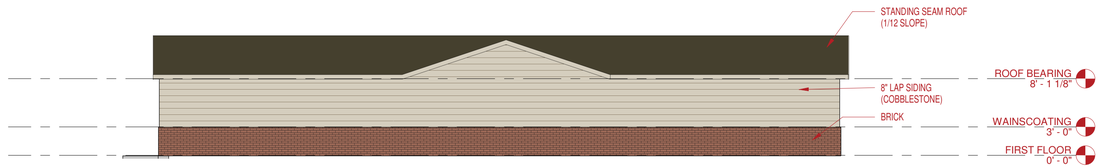
E. 12" Gabel Ends & 16" Overhangs

F. All Horizontal Trim (1x8 Hardi Siding)

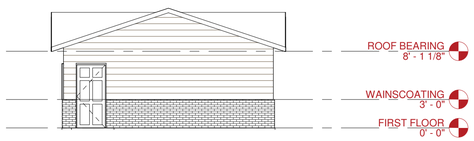
C3 FRONT ELEVATION COLORED
1/8" = 1'-0"



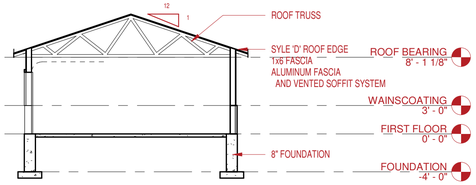
B1 FOUNDATION
3/32" = 1'-0"



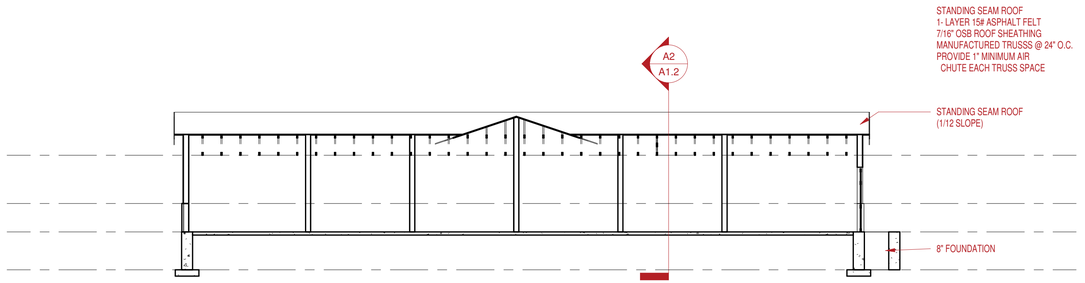
B3 BACK ELEVATION COLORED
1/8" = 1'-0"



A1 SIDE ELEVATION
1/8" = 1'-0"



A2 SHORT SECTION
1/8" = 1'-0"



A3 LONG SECTION
1/8" = 1'-0"

VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR ON-IT-BOARD APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, AND SAFETY PRECAUTIONS AND IS RESPONSIBLE FOR USING THESE PLANS IN ACCURATE CONNECTION WITH ANY APPLICATION FOR WHICH YOU ARE LIABLE.

MNB

10/21/22

#101

BROOKSIDE VILLAGE

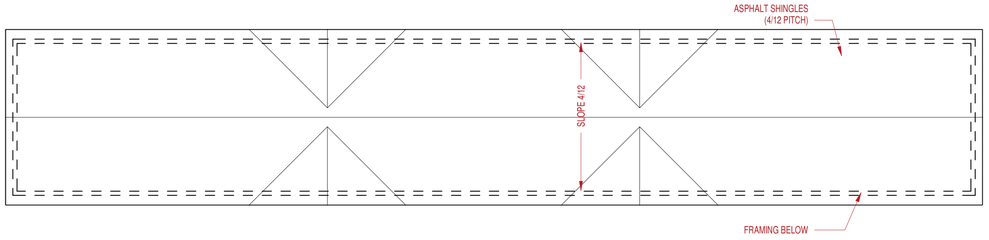
SIGNATURE COMPANIES LLC

GRIMES, IOWA

GARAGE 6 PLANS

As indicated

A1.2



D1 ROOF PLAN
3/32" = 1'-0"

CONCRETE FOUNDATION SQFT	
Type	Length
Door Trim	0'
Foundation - Trench 14"	324'

CONCRETE SLAB	
Type	Area
Concrete - 4"	2701 SF

General Notes:

A. Any discrepancies or conflicts found in the various parts of the construction documents shall be brought to the attention of the Architect and the Owner before proceeding with the work.

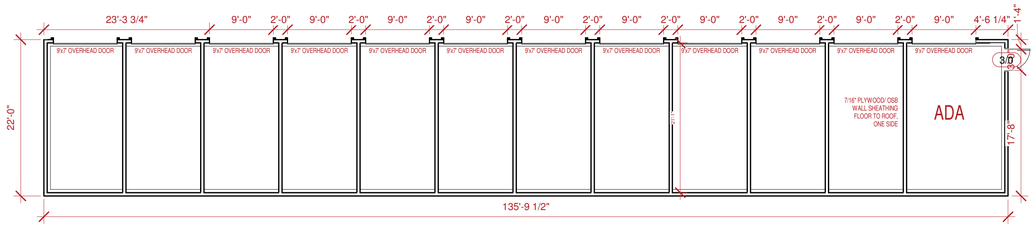
B. Written dimensions take precedence over scaled dimensions. Do not scale the drawings.

C. Contractor & Subcontractors to verify all existing conditions at the project site.

D. All materials & equipment shall be installed per manufacturers instructions.

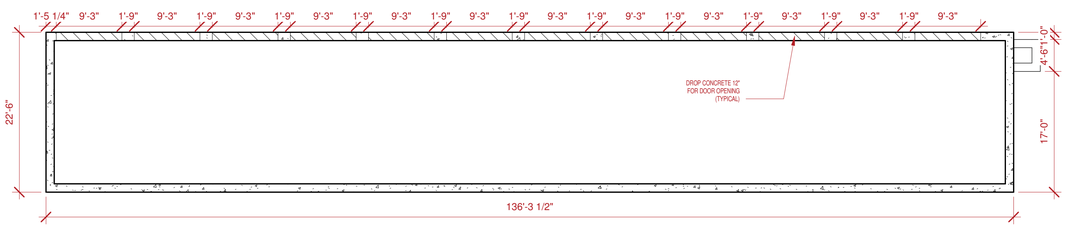
E. 12" Gabel Ends & 16" Overhangs

F. All Horizontal Trim (1x8 Hardi Siding)

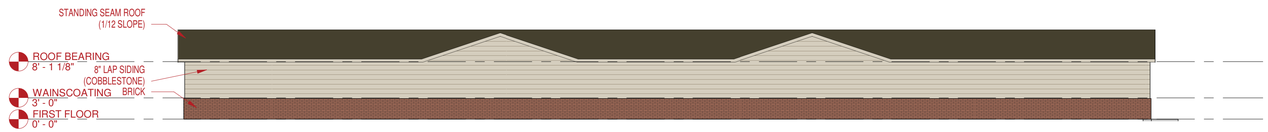


C1 FIRST FLOOR
3/32" = 1'-0"

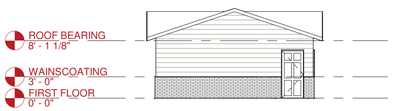
C3 FRONT ELEVATION COLORED
3/32" = 1'-0"



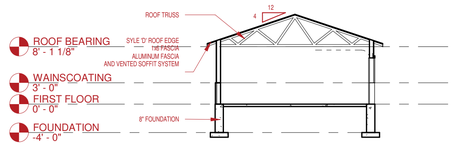
B1 FOUNDATION
3/32" = 1'-0"



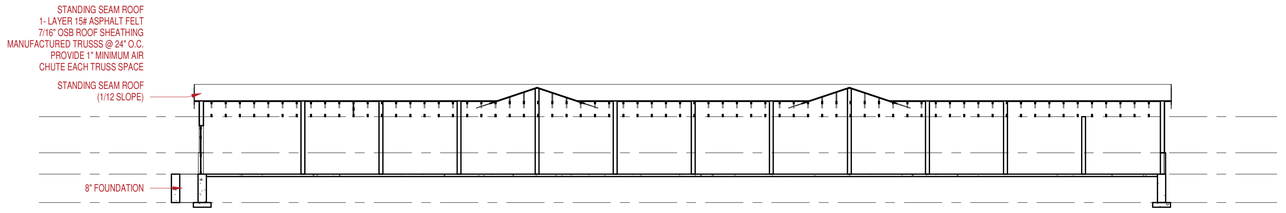
B3 BACK ELEVATION COLORED
3/32" = 1'-0"



A1 SIDE ELEVATION
3/32" = 1'-0"



A2 SHORT SECTION
3/32" = 1'-0"



A3 LONG SECTION
3/32" = 1'-0"

VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL MEMBERS FOR NON-STAGMO APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ENGINEERING ALL CONNECTIONS & STRUCTURAL MEMBERS TO COMPLY WITH LOCAL CODES. SIGNATURE COMPANIES IS NOT RESPONSIBLE FOR LOSS, DAMAGE OR INJURY THAT OCCURS AS A RESULT OF IMPROPER INSTALLATION OF BUILDING COMPONENTS. SEEK ANY APPLICABLE PERMITS BEFORE YOU ARE ENGAGE.

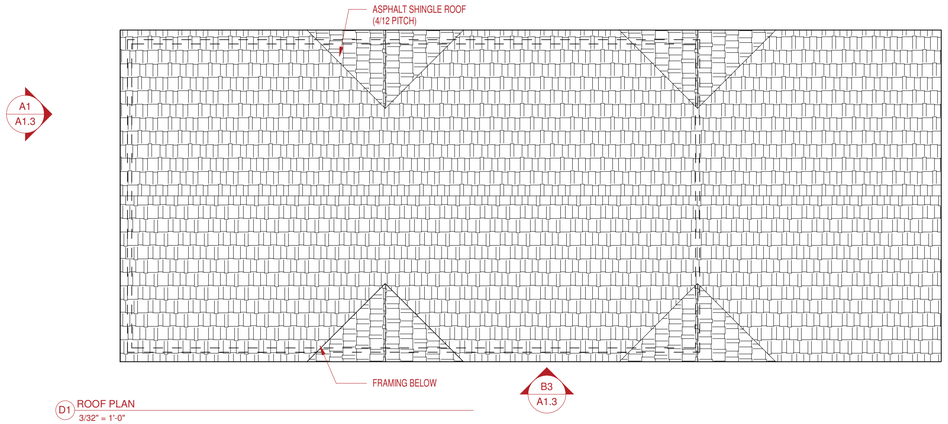
MNB | #101 | 10/21/22

SIGNATURE COMPANIES LLC

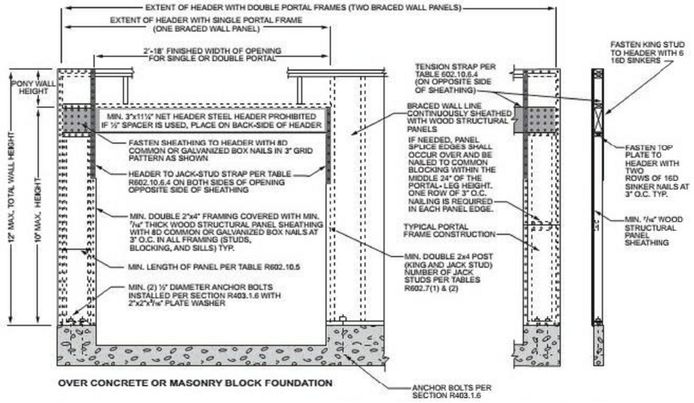
BROOKSIDE VILLAGE | GRIMES, IOWA

GARAGE 12 PLANS | 3/32" = 1'-0"

A1.2



D1 ROOF PLAN
3/32" = 1'-0"



D3 HBA ALTERNATE BRACED WALL PANELS

General Notes:

A. Any discrepancies or conflicts found in the various parts of the construction documents shall be brought to the attention of the Architect and the Owner before proceeding with the work.

B. Written dimensions take precedence over scaled dimensions. Do not scale the drawings.

C. Contractor & Subcontractors to verify all existing conditions at the project site.

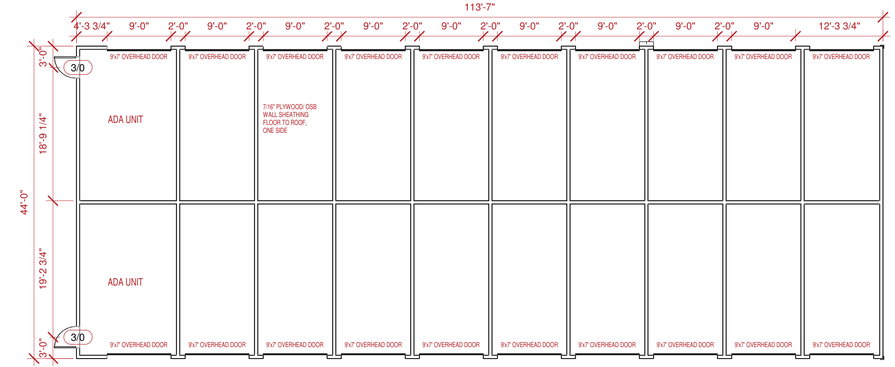
D. All materials & equipment shall be installed per manufacturers instructions.

E. 12" Gabel Ends & 16" Overhangs

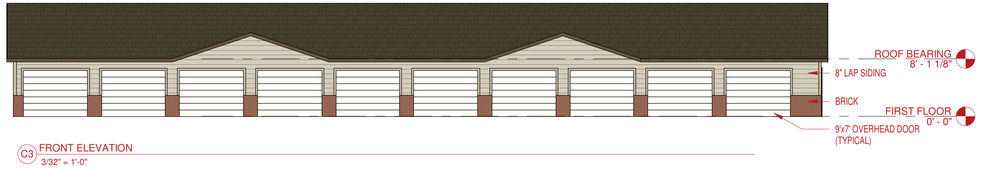
F. All Horizontal Trim (1x8 Hardi Siding)

Concrete Slab	
Type	Area
Concrete - 4"	4839 SF

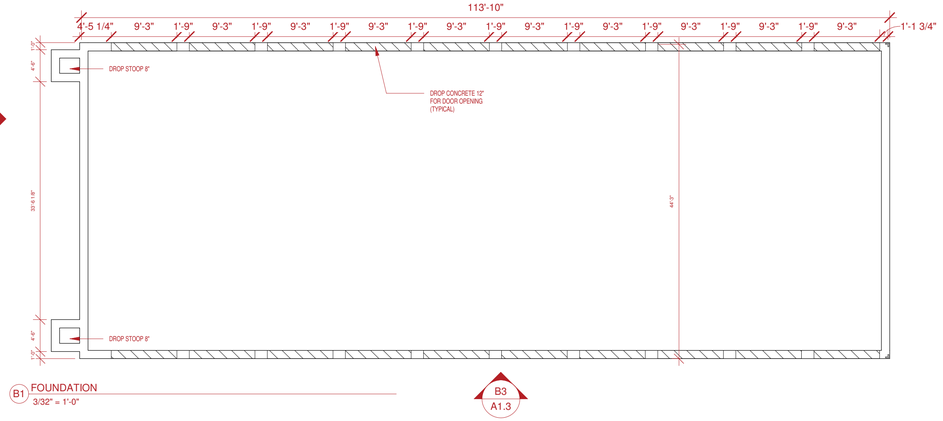
Trench Footings	
Type	Length
Foundation - Trench 14"	335' - 2"
Grand total: 10	335' - 2"



C1 FIRST FLOOR
3/32" = 1'-0"

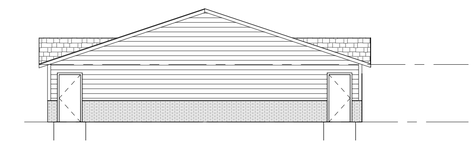


C3 FRONT ELEVATION
3/32" = 1'-0"

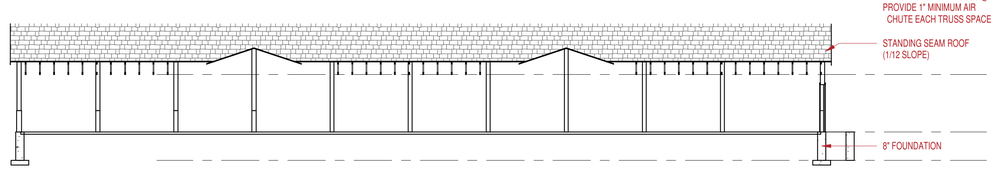


B1 FOUNDATION
3/32" = 1'-0"

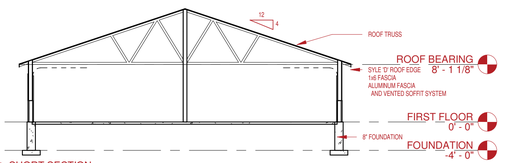
B3 BACK ELEVATION
3/32" = 1'-0"



A1 SIDE ELEVATION
3/32" = 1'-0"



A3 LONG SECTION
3/32" = 1'-0"



A2 SHORT SECTION
3/32" = 1'-0"

VERIFY ALL DIMENSIONS: ALTHOUGH EVERY POSSIBLE EFFORT IS MADE TO ENSURE THE ACCURACY OF DIMENSIONS AND OPENINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFIRM ALL ROUGH OPENINGS AND OTHE DIMENSIONS FOR ACCURACY.

THESE PLANS DETAIL CONNECTIONS & SPECIFIC STRUCTURAL NUMBERS FOR NON-STAGING APPLICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. SIGNATURE COMPANIES IS NOT RESPONSIBLE FOR LOSS, DAMAGE OR INJURY THAT OCCURS DUE TO ANY APPLICATION FOR WHICH YOU ARE LIABLE.

TJO | #101
100 CD | 10/21/22

SIGNATURE COMPANIES LLC
BROOKSIDE VILLAGE
GRIMES, SD

GARAGE 20 PLANS
A1.3
3/32" = 1'-0"

Project # 22-1036: Brookside Village Plat 1 – Final Plat

Planning & Zoning Staff Report

TO: Planning and Zoning Commission
FROM: Molly Mannel, Assistant Planner
DATE: November 1, 2022
RE: Brookside Village Plat 1 – Final Plat

GENERAL INFORMATION:

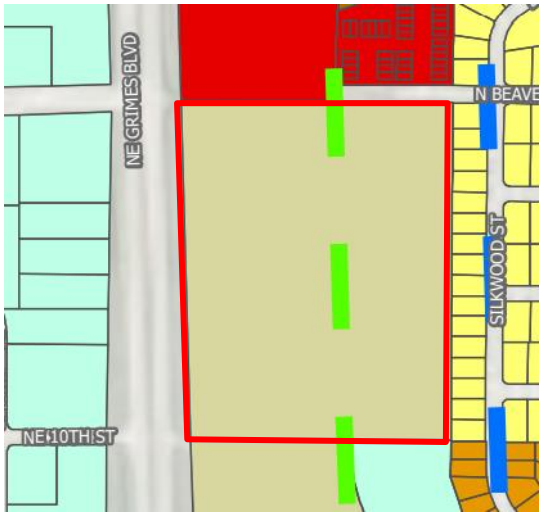
Applicant: Signature Companies, LLC

Requested Action Final Plat

Location Generally located east of Highway 141 and south of NE Beaverbrooke Blvd

SUPPORTING INFORMATION:

Location Map



Zoning Map

LAND USES & ZONING:

Location	Existing Land Use	Land Use Plan Designation	Current Zoning
Subject Site	Vacant	Mixed-Use 1/Medium Density Residential	R-3 Medium & PUD
North	Townhomes and Vacant	Mixed-Use 1	C-2
South	Vacant	Mixed-Use 1	A-1 and R-4
East	Single-Family	Low Density Residential	R-1
West	Highway 141/Commercial	Mixed-Use 1	R-4

BACKGROUND:

The applicant is requesting approval of a final plat for Brookside Village Plat 1, which will allow for the future subdivision of the 31.64-acre property. The plat consists of four lots and two outlouts for commercial and residential use. A roadway connection via a roundabout will also be constructed to connect to Highway 141. The site was previously zoned as A-1 and has now been rezoned to R-3 Medium and PUD. The site also lies within the Highway 141 Mixed Use Development Corridor District.

ANALYSIS:

Site Layout:

The plat consists of four lots and two outlouts for commercial and residential use. In lot three, four three-story apartment buildings and one five-plex townhome will be constructed. In lot four, fourteen five-plex townhomes, one six-plex townhome, one ten-plex townhome, and one eleven-plus townhome will be constructed. Internal private streets will encompass the site for resident and fire access. NE Destination Drive and NE Beaverbrooke Boulevard will connect via a roundabout and connect west to Highway 141.

Landscaping/Streetscape:

A 30-foot landscaped buffering is proposed between the east townhomes and the existing single-family homes along NE Silkwood Street. A streetscape along NE Destination Drive, extending to the south of NE Beaverbrooke Boulevard, will be planted to provide screening and enhance the neighborhood aesthetic. A tree will be planted in each yard of each townhome unit, and all lots will be required to meet the Highway 141 Mixed Use Development Corridor District landscaping standards.

Utilities:

Water is currently existing along NE Beaverbrook Boulevard and will be stubbed down to serve the residential lots to the south. Water and sanitary sewer will be installed with the construction of NE Destination Drive and stub out to all lots. Stormwater will be collected throughout the site, and empty in two wet detention basins to the north.

STAFF RECOMMENDATION:
Staff would recommend approval of Brookside Village Plat 1 final plat subject to any remaining staff comments.

CITY OF GRIMES

Molly Mannel
Assistant Planner

Development Services
410 SE Main St, Suite 102
Grimes, IA 50111
(515)986-4050
www.grimesiowa.gov

~~September 27, 2022~~
October 13, 2022

Signature Companies, LLC
Attn: Brian Atwood
3430 SE Destination Dr, Ste 400
Grimes, Iowa 50111

RE: Brookside Village Plat 1 Final Plat

Dear Mr. Atwood:

The Development Services Department is in receipt of a proposed Final Plat for the Brookside Village Plat 1. Based on the review of the provided submittal materials, staff have the following comments:

General Comments:

1. ~~Please remove the *existing* and *proposed* as the A-1 zoning is no longer existing. Please just state that the site was previously zoned under A-1.~~

2. ~~Please include the C-2 setbacks under Bulk Regulations.~~

3. ~~Please show easements for the detention ponds, surface water flowage, ingress/egress, and public utility. Please label easements that are existing.~~

4. ~~Please include the roundabout and ROW within the final plat.~~

5. Staff is wondering how the project will be phased. How will the apartments and townhomes to the south be serviced from NE Destination Outlot V? Is the developer planning to bond for the utilities and roadway adjoining those lots? Please provide an explanation and possible a phasing map. The developer will need to construct the Outlot V, as they are responsible for improvements adjacent and within the Brookside Village Plat per the TIF agreement. There will need to be an agreement to complete for the improvements in Outlot V. A bond or agreement that reads *no occupancy will be granted in Phase 2 until the remaining improvements are completed within Outlot V* is sufficient. Please discuss with the developer how they wish to go about this.

6. Staff suggests either platting Outlots W-Z as shown, or create on large Outlot and include Outlot V.

Legal Comments:

1. Title opinion

2. Consent(s) to Plat
    a. Owner consent
    b. Mortgagee consent (if applicable)

3. Treasurer's Certificate

4. County Subdivision Name Approval

~~5. Legal description in Word format~~

6. Easement documents and legal descriptions.

7. Declaration and Covenants, Restrictions and Easements

8. 4-year maintenance bond (if public main is constructed) Yes, this can be provided once construction is complete.

9. Letter from the surveyor confirming that monuments are in place. Confirmation is required prior to issuing a Certificate of Occupancy.

Please provide a letter addressing all comments on this comment letter and/or state what was modified on the site plan to address said comments.

SITE PLAN SUBMITTAL SCHEDULE:

SUBMITTAL DATE:	~~October 4, 2022~~ October 20, 2022 **(1 PDF of Final Plat and Legals)**
PLANNING & ZONING:	November 1, 2022, at 5:30 at the Grimes City Hall
COUNCIL MEETING:	November 22, 2022, at 5:30 at the Grimes City Hall

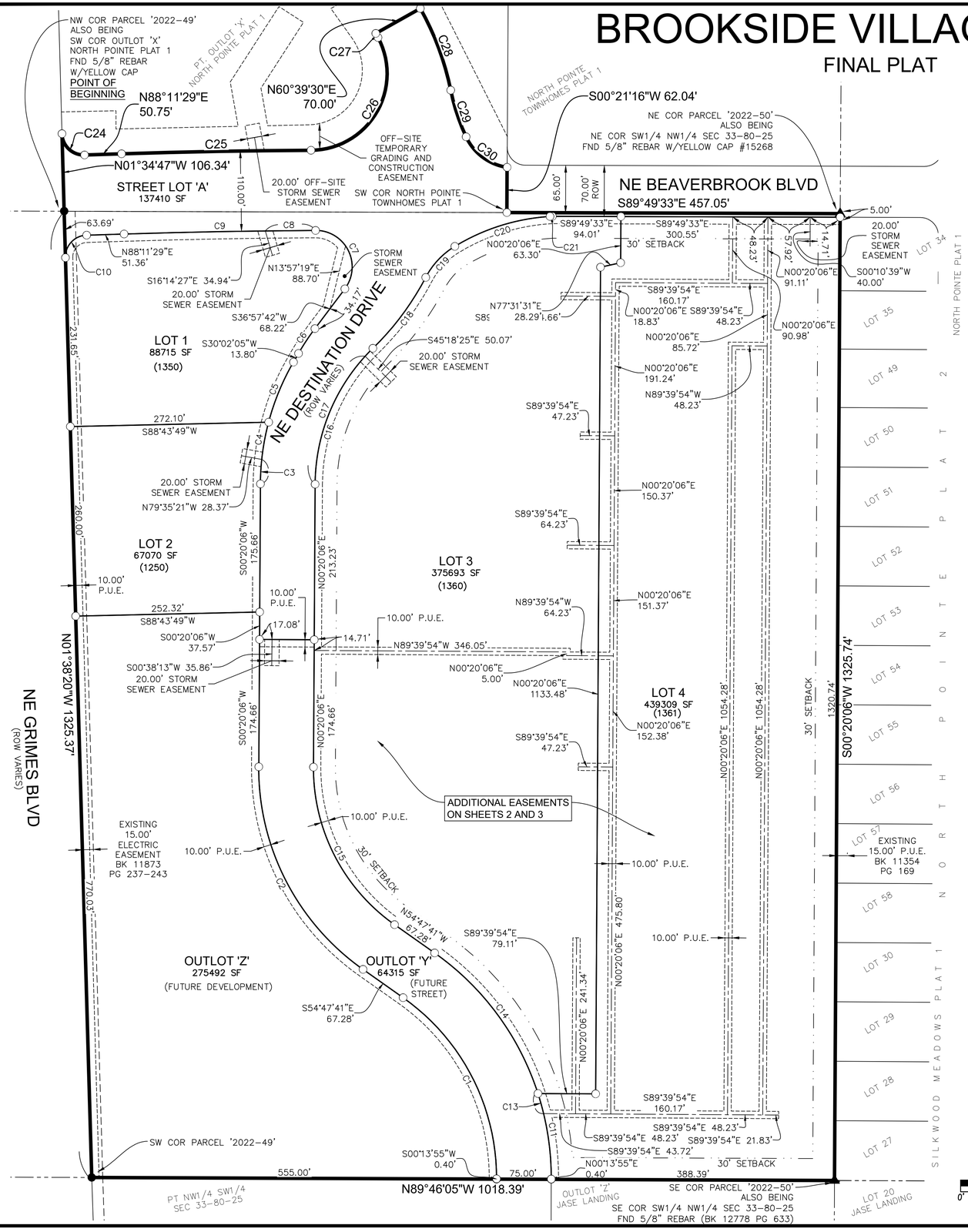
Please feel free to contact me at mmannel@grimesiowa.gov or at (515) 986-4050 if you have any questions or need additional information.

Sincerely,

Molly Mannel
Assistant Planner

BROOKSIDE VILLAGE PLAT 1

FINAL PLAT



SCALE
0' 40' 80' 160'
1" = 80' (FULL SIZE)

INDEX LEGEND

LOCATION: PARCEL '2022-49' AND '2022-50'
PT. SW1/4 NW1/4 SEC 33-80-25
PT. OUTLOT 'X', NORTH POINTE PLAT 1
GRIMES, POLK COUNTY, IOWA

REQUESTOR: SIGNATURE COMPANIES, LLC

PROPRIETORS: CLINT ACKERMAN
SIGNATURE REAL ESTATE INCOME FUND V LLC
4800 E 57TH ST
SIOUX FALLS, SD 57108-8626

HOPE K FARMS LLC
1548 S 45TH ST
WEST DES MOINES, IA 50265-5765

CLINT ACKERMAN
SIGNATURE ERNST HOLDINGS LLC
4800 E 57TH ST
SIOUX FALLS, SD 57108-8626

SURVEYOR: MICHAEL A. BROONER

COMPANY: CIVIL DESIGN ADVANTAGE

PREPARED BY & RETURN TO: CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PH: 515-369-4400

PLAT DESCRIPTION

PARCEL '2022-49' AND PARCEL '2022-50' AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 19066, PAGE 861, BEING A PART OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 80 NORTH, RANGE 25 WEST OF THE FIFTH PRINCIPAL MERIDIAN AND A PART OF OUTLOT 'X', NORTH POINTE PLAT 1, AN OFFICIAL PLAT, ALL IN THE CITY OF GRIMES, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID OUTLOT 'X'; THENCE NORTH 01°34'47" WEST ALONG THE WEST LINE OF SAID OUTLOT 'X', 106.34 FEET; THENCE SOUTHEASTERLY ALONG A CURVE CONCAVE NORTHEASTERLY WHOSE RADIUS IS 30.00 FEET, WHOSE ARC LENGTH IS 47.24 FEET AND WHOSE CHORD BEARS SOUTH 46°41'39" EAST, 42.51 FEET; THENCE NORTH 88°11'29" EAST, 50.75 FEET; THENCE EASTERLY ALONG A CURVE CONCAVE SOUTHERLY WHOSE RADIUS IS 10055.00 FEET, WHOSE ARC LENGTH IS 259.78 FEET AND WHOSE CHORD BEARS NORTH 88°55'53" EAST, 259.77 FEET; THENCE NORTHEASTERLY ALONG A CURVE CONCAVE NORTHWESTERLY WHOSE RADIUS IS 105.00 FEET, WHOSE ARC LENGTH IS 215.98 FEET AND WHOSE CHORD BEARS NORTH 30°44'43" EAST, 179.87 FEET; THENCE NORTHWESTERLY ALONG A CURVE CONCAVE SOUTHWESTERLY WHOSE RADIUS IS 33.58 FEET, WHOSE ARC LENGTH IS 6.39 FEET AND WHOSE CHORD BEARS NORTH 28°45'41" WEST, 6.38 FEET; THENCE NORTH 60°39'30" EAST, 70.00 FEET; THENCE SOUTHERLY ALONG A CURVE CONCAVE WESTERLY WHOSE RADIUS IS 385.00 FEET, WHOSE ARC LENGTH IS 120.07 FEET AND WHOSE CHORD BEARS SOUTH 20°24'27" EAST, 119.58 FEET; THENCE SOUTHERLY ALONG A CURVE CONCAVE EASTERLY WHOSE RADIUS IS 284.00 FEET, WHOSE ARC LENGTH IS 67.55 FEET AND WHOSE CHORD BEARS SOUTH 18°17'14" EAST, 67.39 FEET; THENCE SOUTHEASTERLY ALONG A CURVE CONCAVE NORTHEASTERLY WHOSE RADIUS IS 74.00 FEET, WHOSE ARC LENGTH IS 72.94 FEET AND WHOSE CHORD BEARS SOUTH 53°20'24" EAST, 70.03 FEET TO THE WESTERLY LINE OF NORTH POINTE TOWNHOMES PLAT 1, AN OFFICIAL PLAT; THENCE SOUTH 00°21'16" WEST ALONG SAID WESTERLY LINE, 62.04 FEET TO THE SOUTHWEST CORNER OF SAID NORTH POINTE TOWNHOMES PLAT 1; THENCE SOUTH 89°49'33" EAST ALONG THE NORTHERLY LINE OF SAID PARCEL '2022-50', A DISTANCE OF 457.05 FEET TO THE NORTHEAST CORNER OF SAID PARCEL '2022-50'; THENCE SOUTH 00°20'06" WEST ALONG THE EAST LINE OF SAID PARCEL '2022-50', A DISTANCE OF 1325.74 FEET TO THE SOUTHEAST CORNER OF SAID PARCEL '2022-50'; THENCE NORTH 89°46'05" WEST ALONG THE SOUTHERLY LINE OF SAID PARCEL '2022-50' AND PARCEL '2022-49', A DISTANCE OF 1018.39 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL '2022-49'; THENCE NORTH 01°38'20" WEST ALONG THE WEST LINE OF SAID PARCEL '2022-49', A DISTANCE OF 1325.37 FEET TO THE POINT OF BEGINNING AND CONTAINING 33.24 ACRES (1,448,003 SQUARE FEET).

THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

DEVELOPER

SIGNATURE COMPANIES, LLC
3430 SE DESTINATION DR, STE 400
GRIMES, IOWA 50111
CONTACT: BRIAN ATWOOD
EMAIL: BRIAN@SIGNATURECOMPANIESLLC.COM
PH: (515) 371-3669

ENGINEER / SURVEYOR

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322

BULK REGULATIONS

PUD W/ UNDERLYING R-3: HIGH DENSITY RESIDENTIAL DISTRICT
SETBACKS:

FRONT YARD	= 30 FT
REAR YARD	= 30 FT
SIDE YARD	
1 STORY	= 20 FT EACH SIDE / 40 FEET TOTAL
2-3 STORIES	= 20 FT EACH SIDE / 40 FEET TOTAL

R-3 MED DENSITY RESIDENTIAL DISTRICT
SETBACKS:

FRONT YARD	= 30 FT
REAR YARD	= 30 FT
SIDE YARD	
1 STORY	= 10 FT EACH SIDE / 20 FEET TOTAL
2-3 STORIES	= 15 FT EACH SIDE / 30 FEET TOTAL

PUD W/ UNDERLYING C-2: GENERAL HIGHWAY SERVICE AND COMMERCIAL DISTRICT

SETBACKS:

FRONT YARD	= 20'
SIDE YARD	= NONE REQUIRED, EXCEPT WHEN ADJOINING ANY 'R' DISTRICT OR STREET RIGHT-OF-WAY LINE, IN WHICH CASE - 25 FEET
REAR YARD	= 25 FEET; HOWEVER, FOR EVERY FOOT THE FRONT YARD IS INCREASED OVER 25 FEET, THE REAR YARD MAY BE DECREASED IN DIRECT PROPORTION THERETO, BUT IN NO CASE SHALL THE REAR YARD BE LESS THAN 10 FEET
PARKING LOT	= 10' ALONG HIGHWAY 141 AND NE DESTINATION DRIVE.
MAX BUILDING HEIGHT	= 50 FT
MAX # OF STORIES	= 4 STORIES
MINIMUM OPEN SPACE REQUIRED	= 20%

*PARKING REQUIREMENTS SHALL FOLLOW THE CITY OF GRIMES' ZONING ORDINANCE 12-15 "OFF-STREET PARKING, CIRCULATION, AND LOADING".

DATE OF SURVEY

SEPTEMBER 9, 2022

NOTES

1. ANY SET MONUMENTATION SHOWN ON THIS PLAT WILL BE COMPLETED WITHIN ONE YEAR FROM THE DATE THIS PLAT WAS RECORDED.
2. LOTS MAY BE SUBJECT TO MINIMUM PROTECTION ELEVATIONS AND OTHER ELEVATION RESTRICTIONS NOT SHOWN ON THIS PLAT. REFER TO THE APPROVED PROJECT ENGINEERING DOCUMENTS FOR ANY ELEVATION RESTRICTIONS.
3. STREET LOT 'A' SHALL BE DEDICATED TO THE CITY OF GRIMES FOR PUBLIC RIGHT OF WAY.

ZONING

PREVIOUS ZONING:
A-1: AGRICULTURAL DISTRICT

CURRENT ZONING:
PUD: PLANNED UNIT DEVELOPMENT W/ UNDERLYING R-3 HIGH AND C-2 LOCATED WITHIN THE HIGHWAY 141 MIXED USE CORRIDOR.

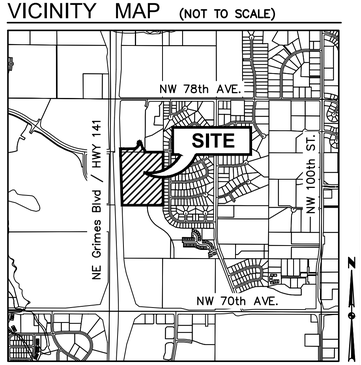
R-3: MED (MEDIUM DENSITY FAMILY DWELLING DISTRICT) LOCATED WITHIN THE HIGHWAY 141 MIXED USE CORRIDOR

DEVELOPMENT AGREEMENT: BK. 19185, PG. 592-607

LEGEND

	FOUND	SET
SECTION CORNER AS NOTED	▲	△
1/2" REBAR, YELLOW PLASTIC CAP#15980 (UNLESS OTHERWISE NOTED)	●	○
MEASURED BEARING & DISTANCE	M	
RECORDED BEARING & DISTANCE	R	
DEEDED BEARING & DISTANCE	D	
PUBLIC UTILITY EASEMENT	P.U.E.	
CURVE ARC LENGTH	AL	
LOT ADDRESS	(1234)	
CENTERLINE		
SECTION LINE		
EASEMENT LINE		
BUILDING SETBACK LINE		
PLAT BOUNDARY		

VICINITY MAP (NOT TO SCALE)



GRIMES, IOWA

I HEREBY CERTIFY THAT THIS LAND SURVEYING DOCUMENT WAS PREPARED AND THE RELATED SURVEY WORK WAS PERFORMED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF IOWA.

MICHAEL A. BROONER, P.L.S. DATE

LICENSE NUMBER 15980
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS 1 THROUGH 3

MICHAEL A. BROONER 15980 LICENSED PROFESSIONAL LAND SURVEYOR IOWA

REVISIONS	DATE
1ST SUBMITTAL	09/13/22
2ND SUBMITTAL	10/04/22
3RD SUBMITTAL	10/20/22

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: TECH: REVIEW:

CIVIL DESIGN ADVANTAGE
GRIMES, IOWA

BROOKSIDE VILLAGE PLAT 1
FINAL PLAT

1/3

2201.009

FILE: H:\2022\2201009\DWG\2201009-FINAL PLAT.DWG
PLOTTED: 10/20/2022 9:27 PM COMMENT:
PLOTTED BY: JARED MURRAY ENG:

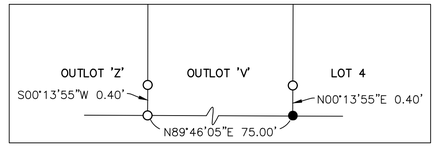
BROOKSIDE VILLAGE PLAT 1

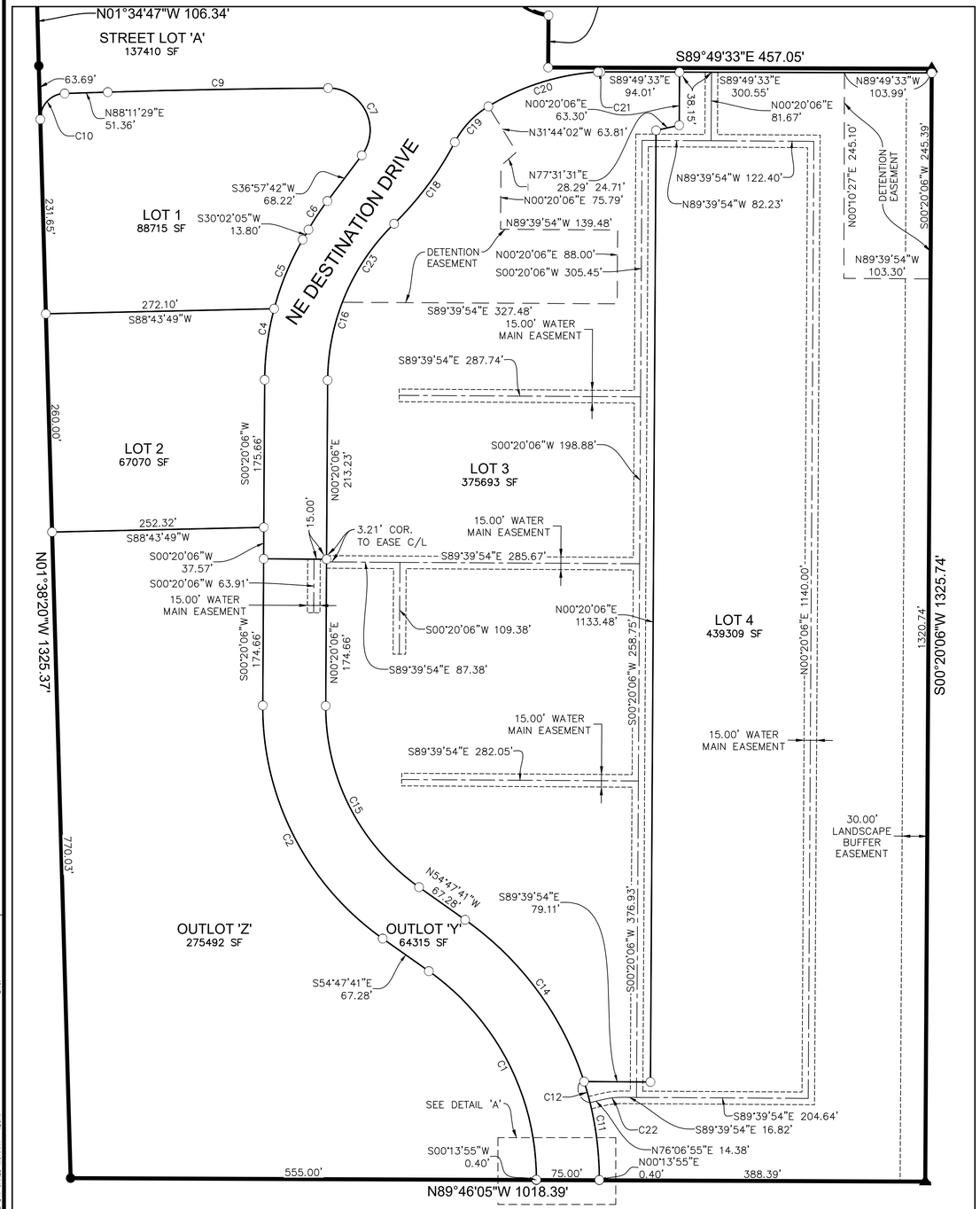
FINAL PLAT

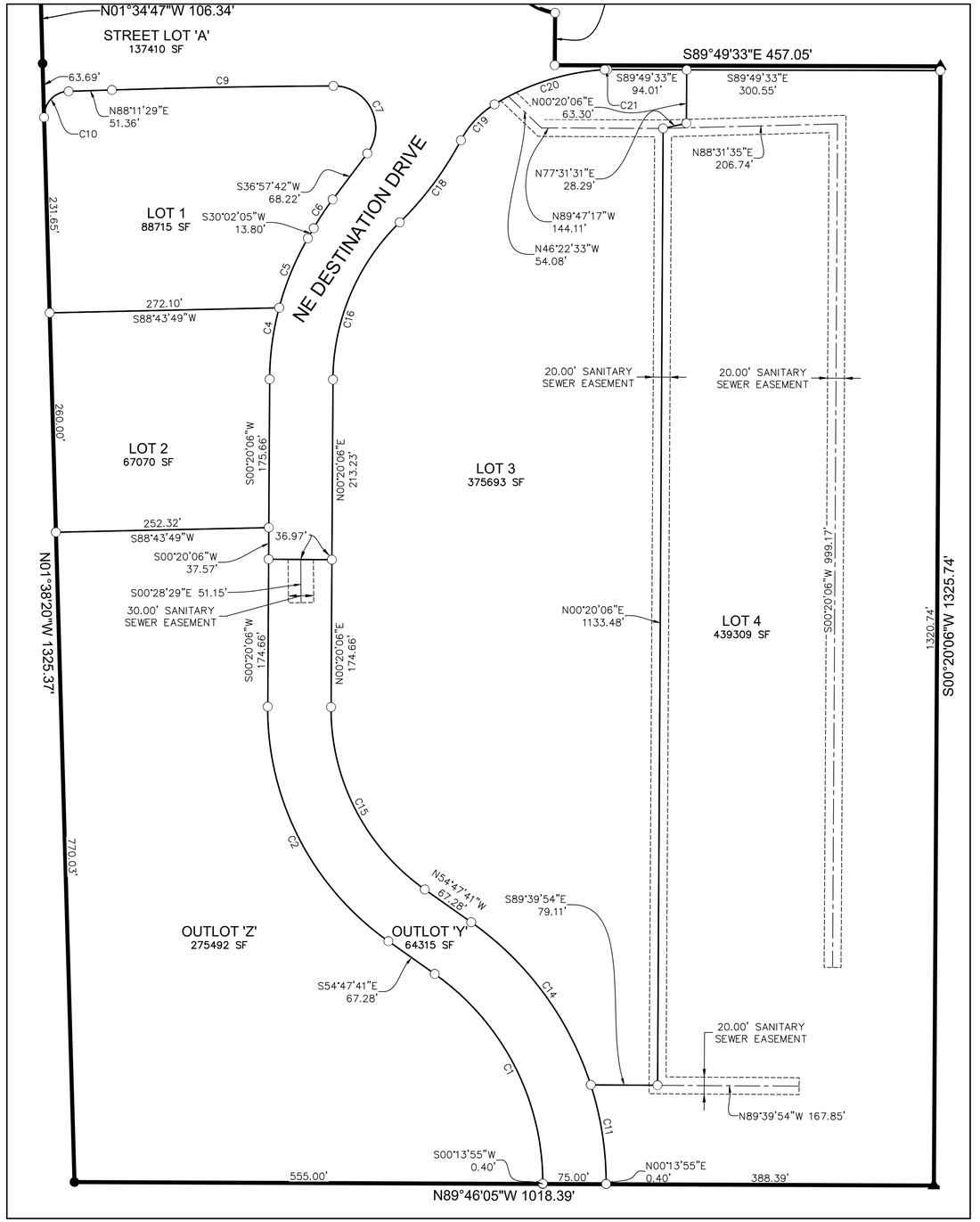
SCALE
0' 40' 80' 160'
1" = 80' (FULL SIZE)

N

DETAIL 'A'







REVISIONS	DATE
1ST SUBMITTAL	09/13/22
2ND SUBMITTAL	10/04/22
3RD SUBMITTAL	10/20/22

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: TECH: REVIEW:

CIVIL DESIGN ADVANTAGE
GRIMES, IOWA

BROOKSIDE VILLAGE PLAT 1

FINAL PLAT

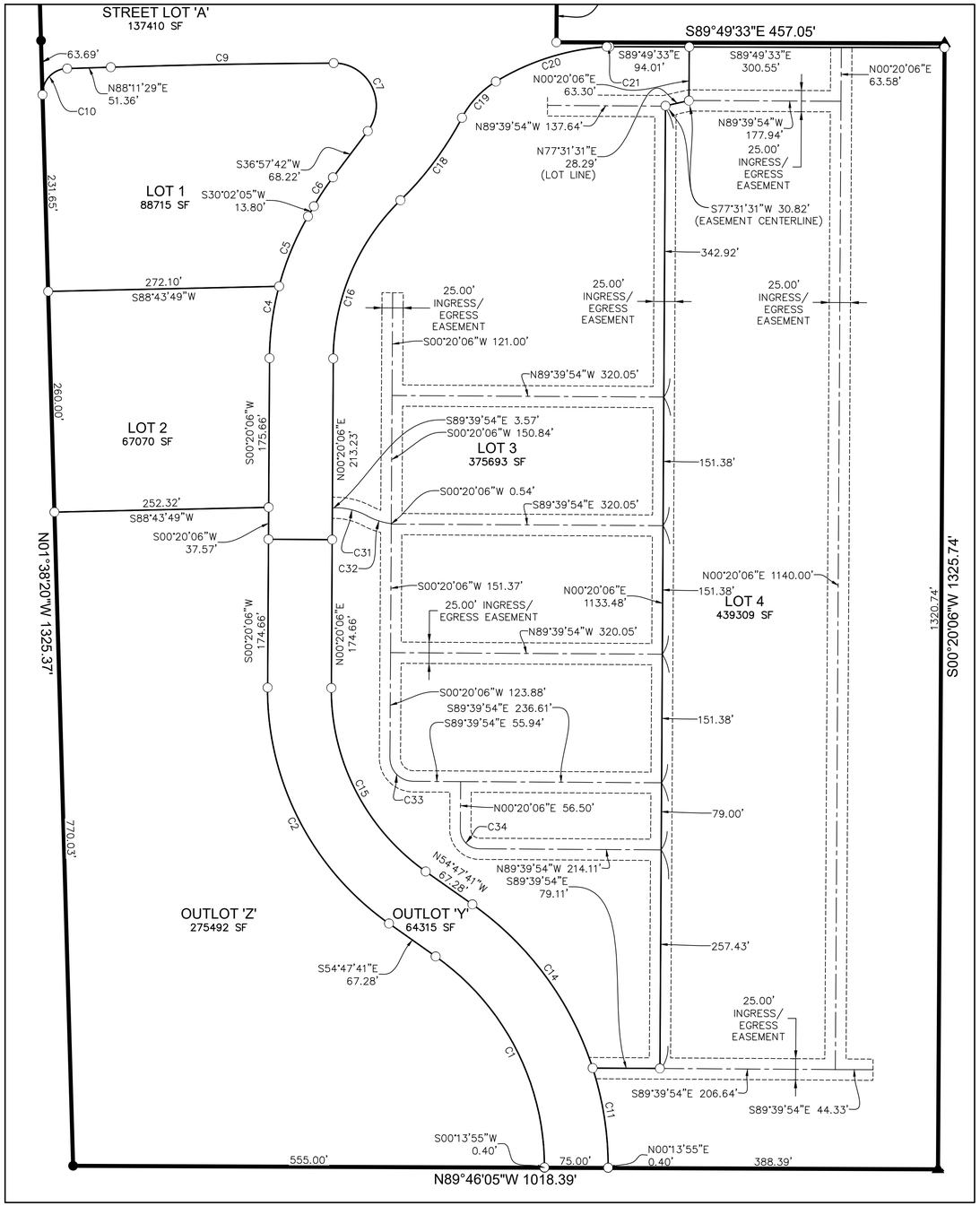
2201.009

FILE: H:\2022\2201009\DWG\2201009-FINAL PLAT.DWG
REF. XREF: 10/20/2022 9:27 PM BY: JARED MURRAY
PLOTTED: 10/20/2022 9:27 PM BY: JARED MURRAY
COMMENT:
ENG:
TECH:

BROOKSIDE VILLAGE PLAT 1

FINAL PLAT

SCALE
0' 40' 80' 160'
1" = 80' (FULL SIZE)



CURVE DATA

CURVE	DELTA	RADIUS	LENGTH	BEARING	CHORD
C1	55°01'37"	302.50'	290.52'	S27°16'53"E	279.48'
C2	55°07'47"	337.50'	324.74'	S27°13'48"E	312.36'
C3	5°42'24"	337.50'	33.61'	S03°11'18"W	33.60'
C4	14°32'28"	337.50'	85.65'	S07°36'20"W	85.42'
C5	15°09'31"	337.50'	89.29'	S22°27'19"W	89.03'
C6	6°55'38"	337.50'	40.80'	S33°29'54"W	40.78'
C7	127°15'28"	50.00'	111.05'	S26°40'02"E	89.59'
C8	0°23'48"	9945.00'	68.84'	S89°30'21"W	68.84'
C9	1°30'46"	9945.00'	262.56'	N88°56'52"E	262.55'
C10	89°49'49"	30.00'	47.04'	N43°16'34"E	42.36'
C11	18°05'02"	377.50'	119.15'	N08°48'36"W	118.65'
C12	3°58'03"	377.50'	26.14'	N15°52'06"W	26.13'
C13	4°20'36"	377.50'	28.62'	N15°40'49"W	28.61'
C14	36°56'34"	377.50'	243.40'	N36°19'24"W	239.21'
C15	55°07'47"	262.50'	252.58'	N27°13'48"W	242.95'
C16	45°22'16"	262.50'	207.87'	N23°01'14"E	202.48'
C17	42°03'28"	262.50'	192.69'	S21°21'50"W	188.39'
C18	17°59'51"	387.50'	121.72'	N36°42'26"E	121.22'
C19	30°54'27"	109.50'	59.07'	N43°09'44"E	58.35'
C20	27°48'57"	284.50'	138.12'	N72°31'26"E	136.77'
C21	3°44'32"	50.00'	3.27'	N88°18'11"E	3.27'
C22	14°13'10"	100.00'	24.82'	N83°13'31"E	24.75'
C23	24°37'41"	262.50'	112.83'	S33°23'31"W	111.97'
C24	90°13'44"	30.00'	47.24'	S46°41'39"E	42.51'
C25	1°28'49"	10055.00'	259.78'	N88°55'53"E	259.77'
C26	117°51'09"	105.00'	215.98'	N30°44'43"E	179.87'
C27	10°54'21"	33.58'	6.39'	N28°45'41"W	6.38'
C28	17°52'06"	385.00'	120.07'	S20°24'27"E	119.58'
C29	13°37'39"	284.00'	67.55'	S18°17'14"E	67.39'
C30	56°28'41"	74.00'	72.94'	S53°20'24"E	70.03'
C31	28°02'13"	80.00'	39.15'	S75°38'48"E	38.76'
C32	21°22'54"	80.00'	29.85'	S72°19'09"E	29.68'
C33	90°00'00"	27.50'	43.20'	S44°39'54"E	38.89'
C34	90°00'00"	22.50'	35.34'	N44°39'54"W	31.82'

FILE: H:\2022\2201009\DWG\2201009-FINAL PLAT.DWG
PLOT DATE: 10/20/2022 8:27 PM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

REVISIONS	DATE
1ST SUBMITTAL	09/13/22
2ND SUBMITTAL	10/04/22
3RD SUBMITTAL	10/20/22

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: TECH: REVIEW:

CIVIL DESIGN ADVANTAGE

GRIMES, IOWA

BROOKSIDE VILLAGE PLAT 1

FINAL PLAT

Project # 22-1037: Slim Chickens – Site Plan Amendment

Planning & Zoning Staff Report

TO: Planning and Zoning Commission
FROM: Molly Mannel, Assistant Planner
DATE: November 1, 2022
RE: Slim Chickens – Site Plan Amendment

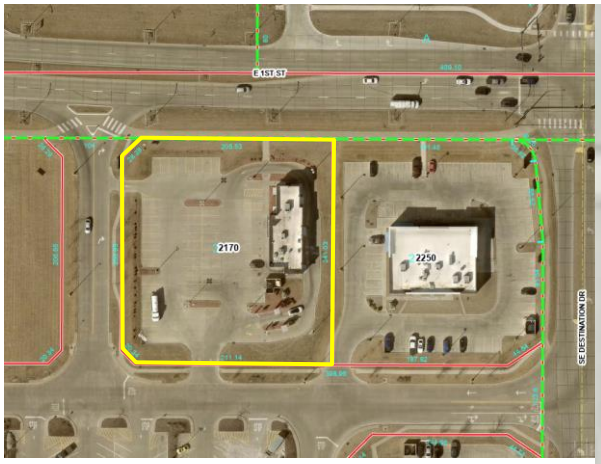
GENERAL INFORMATION:

Applicant: Edotto Slims 1 LLC

Requested Action Site Plan Amendment

Location 2170 E 1st Street

SUPPORTING INFORMATION:



Location Map

Zoning Map

LAND USES & ZONING:

Location	Existing Land Use	Land Use Plan Designation	Current Zoning
Subject Site	Commercial	General Commercial	C-2
North	Commercial	General Commercial	C-2
South	Commercial	General Commercial	C-2
East	Commercial	General Commercial	C-2
West	Commercial	General Commercial	C-2

BACKGROUND:

The applicant is requesting approval of a site plan amendment for Slim Chickens restaurant. The site used to be the location of the old Burger King, whose site plan was approved back in 2013. The site consists of one lot. It is currently zoned as C-2 and lies within Zone 1 of the Highway 141 Mixed Use Development Corridor District.

ANALYSIS:

Building/Elevations:

The existing brick and boards on the building will remain. The boards to the north will be painted a grey tone. A patio addition will be constructed, attaching to the north elevation of the building. Metal awnings will replace the current window awnings and match the metal roof on top of the patio. Customers may enter the restaurant through the west doors, or patio doors to the north. A new dumpster enclosure to the south will be constructed and attached to the primary building. It will be constructed of a similar masonry material and a steel gate.

Site Layout:

Customers may enter and exit the site through the private drive to the south. An exit only lane can also be found to the west, where customer may enter onto E 1st Street through a right-out only. The drive-through consists of two lanes that can be accessed to the east off the private driveway. Customers may enter the restaurant through the west doors, or patio doors to the north. A sidewalk connection to E 1st Street is available to the north near the patio, as well as to the west along the private drive.

Parking:

Parking for the site will generally stay the same. Two stalls in front of the dumpster enclosure will be removed. In total, 57 parking spaces will be available on site, with two spaces being ADA accessible.

Landscaping/Streetscape:

Existing dead or overgrown shrubs will be trimmed or removed. Trees will be planted along East 1st Street and the private drive to the south. Dead shrubs within the landscaped islands will be replaced with new shrubs and grasses. Shrubs and grasses will also be planted encompassing the building and drive-through signage to the south.

Utilities:
Utilities on site will stay the same. Water and sanitary is existing and stubbed from the private drive to the south. The fire sprinkler system that is currently installed in the existing building, will be extended to cover the new covered patio to the north.

STAFF RECOMMENDATION:
Staff would recommend approval of Slim Chickens site plan amendment subject to any remaining staff comments.

CITY OF GRIMES

Molly Mannel
Assistant Planner

Development Services
410 SE Main St, Suite 102
Grimes, IA 50111
(515)986-4050
www.grimesiowa.gov

~~October 10, 2022~~
October 24, 2022

Civil Design Advantage
Attn: Dean Roghair
4121 NW Urbandale Drive
Urbandale, IA 50322

RE: Slim Chickens – Site Plan Amendment

Dear Mr. Roghair:

The Development Services Department is in receipt of a proposed Site Plan Amendment for the Slim Chickens. Based on the review of the provided submittal materials, staff have the following comments:

General Comments:

1. ~~Please provide the $750 minor site plan fee before the November 2nd city council agenda due date.~~

2. Please include under zoning that the site resides within the *Highway 141 Mixed Use Development Corridor District, Zone 2,* and the *Transportation Corridor Mixed Use Development Overlay District*.

3. Please note that signs are reviewed and approved under separate permit. A total of 91.5 square feet of wall signage is permitted. All signs must have lettering at a minimum 1" depth. Please see Chapter 12-14 of the zoning ordinance for additional sign requirements. A sign permit application is attached. Staff calculated around 332 square foot of building signage. Please keep in mind when applying for a sign permit that a total of 91.5 square foot is permitted. Please assess in next submission.

4. ~~Note that the covered patio area will need to be constructed with a fire suppression system. Please include a note on the plan stating the extension of the sprinkler system to cover the patio.~~

5. ~~Is the existing drive-through signage remaining in the same location? Are any changes proposed?~~

6. ~~Per Section 304.3.3 of the Grimes Fire Code, dumpsters and containers with an individual capacity of 1.5 cubic yards or more shall not be stored in buildings or placed within 5' of~~

~~combustible walls, openings or combustible roof eave lines. Please include a note or measurement measuring the dumpster 5' away from the south wall.~~

Site Plan:

1. Label the patio dimensions and square footage. Please widen the walkway into the patio area to be 5' wide.

2. ~~Please provide a grading plan. Staff would like to see how the site is graded with the patio addition.~~

3. ~~Label the dumpster enclosure dimensions.~~

4. Please provide open space and right-of-way landscape planting calculations per the Highway 141 regulations. Per the Highway 141 overlay, zone 2 ordinance, 15% of open space is required. Please adjust landscaping numbers.

5. ~~The trees along the private drive are not counted toward the required site landscaping. Please provide required tree count on the site.~~

6. The original Burger King site plan provided 13 trees, please install 2 additional trees on the site.

7. On the site plan, please stripe the parking spaces in front of the dumpster for no parking. Please include updated parking calculations on cover sheet.

Architecture:

1. ~~Please provide color renderings.~~

2. ~~On the elevations, please call out material colors, and materials if new or modified.~~

3. Dumpster enclosure should be constructed with materials that are similar to principal building. Please label material and height of the enclosure. Please provide a gate detail with metal-framed gate. What is the material of the dumpster gate boards? Please label. Please revise 12" gap between boards to 1" or less.

4. ~~Provide a railing material detail.~~

5. ~~Provide a furniture layout and identify if furniture is fixed or mobile. Egress from north entrance will need to be maintained through the patio area.~~

6. Please provide a lighting cut sheet/detail. Is the developer proposing to install new parking lot light poles? Or keeping the existing ones?

7. ~~The (3) West Dumpster elevation doesn't seem to match the (2) West elevation. Where does the door to inside the building line up? Please assess.~~

Please provide a letter addressing all comments on this comment letter and/or state what was modified on the site plan to address said comments.

SITE PLAN SUBMITTAL SCHEDULE:

SUBMITTAL DATE: ~~October 17, 2022~~
October 31, 2022
(1 PDF of Site plan with Elevation Plan included)

PLANNING & ZONING: November 1, 2022, at 5:30 at the Grimes Community Center

COUNCIL MEETING: November 8, 2022, at 5:30 at the Grimes Community Center

Please feel free to contact me at mmannel@grimesiowa.gov or at (515) 986-4050 if you have any questions or need additional information.

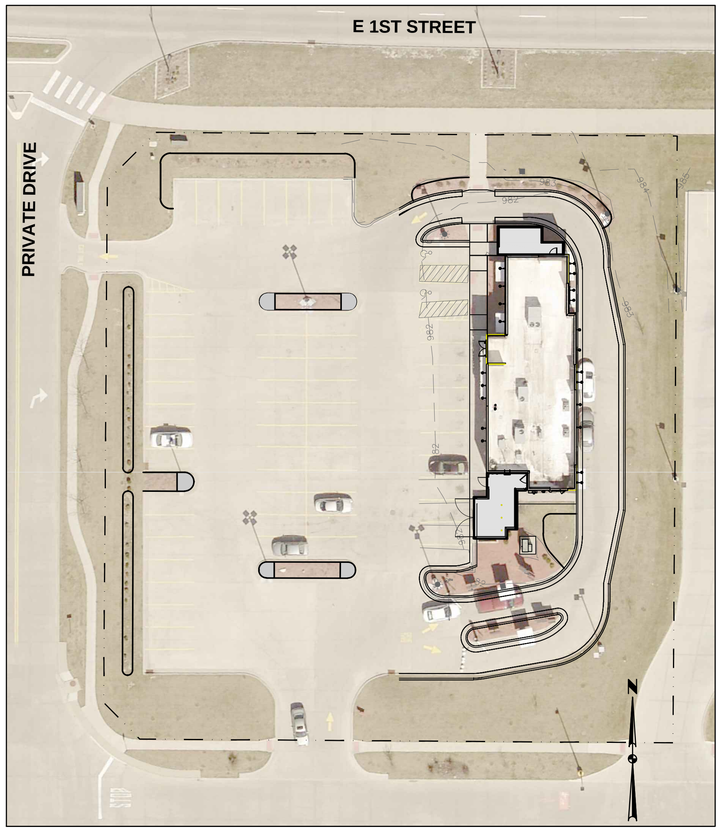
Sincerely,

Molly Mannel
Assistant Planner

SITE PLAN AMENDMENT FOR:
SLIM CHICKENS

2170 E 1ST STREET, GRIMES, IOWA

SITE



LEGAL DESCRIPTION

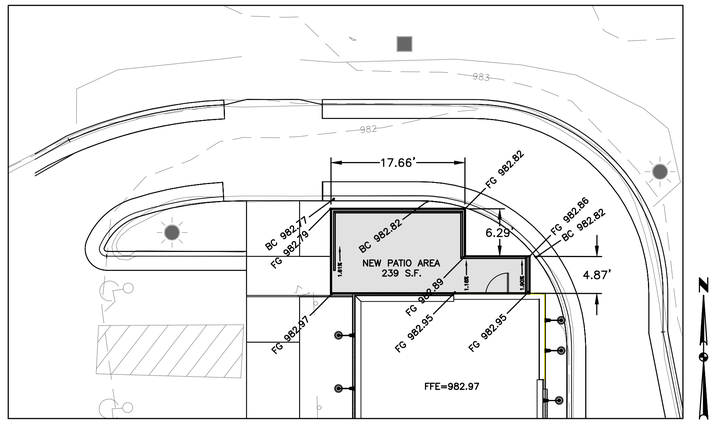
LOT 13 WAL–MARTS SECOND ADDITION

ZONING

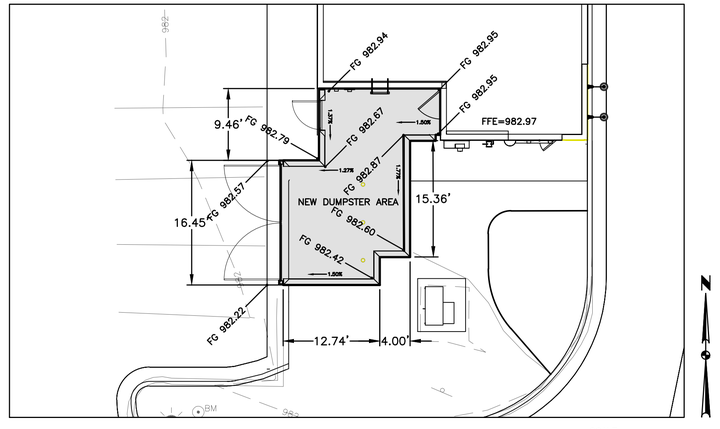
C–2 – COMMERCIAL DISTRICT

NOTES

1. THE EXISTING FIRE SUPPRESSION SYSTEM SHALL BE EXTENDED TO COVER NEW COVERED PATIO AREA.
2. NO DUMPSTER SHALL BE PLACED WITHIN 5' OF THE BUILDING WALL.



PATIO DETAIL



DUMPSTER AREA DETAIL

OWNER / APPLICANT

EDOTTO SLIMS 1 LLC
CONTACR: JEFF BRANDS
5105 S CROSSING PL SUITE 4
SIOUX FALLS SOUTH DAKOTA 57108
PH: (605) 367–0848

ENGINEER

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: DEAN ROGHAIR
4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PH. (515) 369–4400
FX. (515) 369–4410

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: MIKE BROONER
4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PH. (515) 369–4400
FX. (515) 369–4410

FILE: H:\2022\2207524\DWG\2207524-SITE.DWG
PLOT DATE/TIME: 10/14/2022 11:02 AM
PLOTTED BY: BOB GIBSON
TECH:
COMMENT:
ENG:

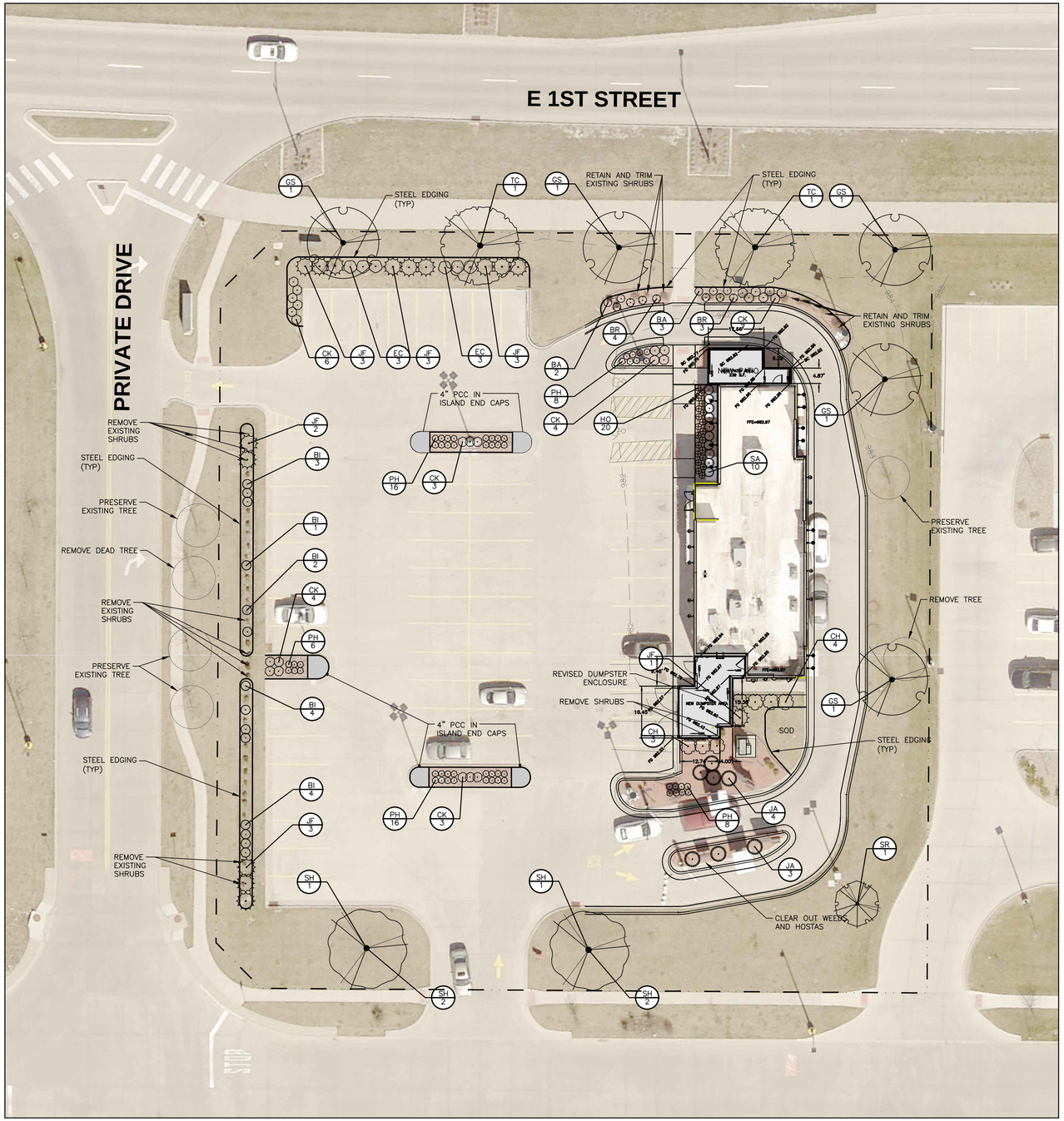
REVISIONS	DATE
2ND SUBMITTAL	10/14/2022
1ST SUBMITTAL	09/21/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: TECH:

CIVIL DESIGN ADVANTAGE
GRIMES, IOWA

SLIM CHICKENS
SITE PLAN AMENDMENT

2207.524



LANDSCAPE NOTES

1. LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
2. TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
3. ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, VOIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS; TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
4. SOD IS REQUIRED AT ALL DISTURBED AREAS AS DIRECTED BY OWNER.
5. BACKFILL TO TOP OF CURB. (MINUS 1 1/2" FOR SOD, IF REQ.)
6. WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
7. SHREDDED HARDWOOD MULCH SHALL BE PLACED AROUND ALL TREES TO A MINIMUM DEPTH OF 3 INCHES. MULCH AROUND ALL CONIFEROUS TREES SHALL BE A 6' DIAMETER CIRCLE. .75"- 1.5" RIVER ROCK MULCH SHALL BE PLACED IN ALL SHRUB PLANTING BEDS TO A MINIMUM DEPTH OF 3". ALL EDGING SHALL BE STEEL EDGING.
8. PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY, THE DRAWING SHALL PREVAIL IF ANY CONFLICTS ARISE.
9. ALL DEBRIS SPILLED IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY.
10. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
13. CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN TO OWNER FOR APPROVAL.

OPEN SPACE LANDSCAPE

TOTAL SITE AREA:	= 54,055 SF
REQUIRED OPEN SPACE (10%):	= 5,505 SF
TREES REQUIRED: (2 PER 1000 SF OF REQUIRED OPEN SPACE)	= 11
TREES PROVIDED:	= 11 (EXCLUDES TREES ALONG WEST PRIVATE DRIVE) (INCLUDES EXISTING TREE ON EAST SIDE)
SHRUBS REQUIRED: (1 PER 500 SF OF REQUIRED OPEN SPACE)	= 11
SHRUBS PROVIDED:	= 114 (DOES NOT INCLUDE SHRUBS ALONG PUBLIC R.O.W.)

RIGHT-OF-WAY LANDSCAPE

RIGHT-OF-WAY FRONTAGE:	= 206 LF
TREES REQUIRED, 1 EVERY 50 LF:	= 5
TREES PROVIDED:	= 5
VEHICULAR ACCESS/PARKING ALONG R.O.W.:	= 176 LF
SHRUBS REQUIRED, 1 EVERY 4 LF:	= 44
SHRUBS PROVIDED:	= 47 (INCLUDES 9 EXISTING)

PLANT SCHEDULE

ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
SR	1	Japanese Tree Lilac	Syringa reticulata	CONT, 1 GALLON
OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
GS	5	Skyline Honey Locust	Gleditsia triacanthos inermis 'Skyline'	B&B, 1.5" CALIPER
SH	2	Millstone™ Japanese Pagodatree	Styphnolobium japonicum 'Haika'	B&B, 1.5" CALIPER
TC	2	Corinthian® Littleleaf Linden	Tilia cordata 'Corzam'	B&B, 1.5" CALIPER
SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
BA	5	Golden Dwarf Japanese Barberry	Berberis thunbergii 'Aurea Nana'	24" HEIGHT
BI	14	Littleleaf Boxwood	Buxus microphylla Wintergreen	5 GAL
BR	7	Ruby Carousel® Japanese Barberry	Berberis thunbergii 'Bailone'	5 GAL
CH	7	Ivory Halo® Dogwood	Cornus alba 'Bailhalo'	5 GAL
EC	6	Compact Burning Bush	Euonymus alatus 'Compactus'	5 GAL
JA	7	Arcadia Juniper	Juniperus sabina 'Arcadia'	5 GAL
JF	15	Sea Green Juniper	Juniperus chinensis 'Sea Green'	5 GAL
SA	10	Anthony Waterer Spirea	Spiraea x bumalda 'Anthony Waterer'	5 GAL
GRASSES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CK	27	Karl Foerster Feather Reed Grass	Calamagrostis x acutiflora 'Karl Foerster'	3 GAL
PH	54	Heavy Metal Switch Grass	Panicum virgatum 'Heavy Metal'	3 GAL
PERENNIALS	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
HO	20	Stella de Oro Daylily	Hemerocallis x 'Stella de Oro'	1 GAL

N

SCALE
0' 10' 20' 40'

FILE: R:\2022\2207524\DWG\2207524-SITE.DWG
PLOTTED: 10/14/2022 11:00 AM
PLOTTED BY: BOB GIBSON
COMMENT: ENG
XREF: ESTDL
TECH:

REVISIONS	DATE
2ND SUBMITTAL	10/14/2022
1ST SUBMITTAL	09/21/2022

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: | TECH:

CIVIL DESIGN ADVANTAGE
GRIMES, IOWA

SLIM CHICKENS
SITE PLAN AMENDMENT

1/2
2207.524

finish notes

1. All material substitutions proposed by general contractors must have corporate approval prior to submission of proposal. Contractors submitting proposals with materials other than those listed above do so at their own risk.

2. Formula for p-4: comp (b001) 2134-30 iron mountain custom sher-color match.

CCE* Colorant	0Z	32	64	128
W1 White	-	20	-	1
B1 Black	-	27	-	1
L1 Blue	-	61	1	-
R3 Magenta	4	-	-	-
Y3 Deep Gold	2	18	1	-

One Gallon	Ultradeep
A82T00154	640399754

3. Not used
4. All caulk/sealant used in project to exhibit color that matches adjacent finishes.
5. Formula for P-9

Sher-cryl hpa high performance acrylic red product #: B66R308 1 gallon formula

CCE* Colorant	0Z	32	64	128
L1 Blue	-	-	1	-
B1 Black	-	1	-	-
R4 New red	-	1	-	-

material schedule

Key	Material	Manufacturer	Finish/Style	Specifications	Location	Notes
ACT-1	Acoustic Ceiling Tile	Armstrong (or approved equal)	White - washable lay-in (2x4)	Climaplus performance - 3270	Back of house	---
ACT-2	Tectum Ceiling Panels	Tectum (or approved equal)	Pre-painted white	---	Dining room	To be direct fastened to interior roof deck with aproved fastener at every other truss spacing
B-1	Rubber Base	Johnsonite	Mandalay - 4 1/2", black	---	Over millwork / Apply at all wood areas / Do not apply to tile	Miter all corners
BR-2	Thin-brick	Hebron	Belltower		Interior -Restroom Corridor / Entry	Running bond / Natural Gray Mortar
CD-1	Composite Decking Boards	Local supplier	Weathered wood	Ref spec	Sign backing at front of patio gable / dumpster gates	1" gaps between boards - Direct fastened to trusses with concealed fasteners per mfr recommendations
EX						
F-1	Stamped Concrete	Scofiled Systems, Lithotex Pavecrafters		Ref spec	Patio	Scoffield pine interocking plank pattern
F-1a	Color Hardener	Scofield	A55 Pecan Tan	---		
F-2	Resinous MMA Flooring	RES-TEK or SILICAL	80% Red Oxide 10% Black 10% Dark Gray	Ref spec	Kitchen / Prep / Supply / Cooler / Drive-Thru / Office/ Mechanical	See detail, includes integral base; RES-TEK, Jason Redfield (913)-375-5191 (jason.redfield@res-tek.com; Silical, Andy Mills (andymills@silikalamerica.com)
F-3	Sealed Concrete	Local supplier	Brushed finish	---	Dumpster Pad	---
F-3a	Sealed Concrete	PROSOCO	Concrete protector SB	---		---
FRP-1	Fiberglass Reinforced Panel	CRANE or approved equal	Smooth finish, White (85)	---	Back of House	Provide manufacturers standard pvc corner guards. Install above base.
MT-1	Metal Roofing	Metal Sales Manufacturing Corp.	Clear	26 Guage	Awnings, Patio Roof and Rear Storage Roof	---
MT-2	Pre-finished Metal Coping	Firestone	Una-clad / Clear Anodized kynar 500 finish	.05" Gauge	Copings	
P-1	Paint	Sherwin Williams	SW 7005 - Pure White / Semi Gloss	A-100	Exterior Fiber Cement Board Trim	---
P-1a	Primer	Sherwin Williams	---	Quick Dry Stain Blocking Primer	Exterior Fiber Cement Board Trim	---
P-2	Paint	Sherwin Williams	SW 7005 - Pure White / Satin	Promar 200 Zero VOC	Dining and Corridor Gyp Walls / Gyp Ceilings at Restrooms	---
P-2a	Primer	Sherwin Williams	---	Pva Drywal Primer & Sealer / White	---	---
P-3	Paint	Sherwin Williams	B42W00082 - white	Acrylic Dryfall / Eggshell	Dining area ceiling (including trusses and all conduit / MC cabling above trusses)	---
P-3a	Primer	Sherwin Williams	---	Premium Wall and Wood Primer / White	Dining area ceiling (including trusses and all conduit / MC cabling above trusses)	---
P-4	Paint	Sherwin Williams	See Finish Note 2 -Iron Mountain Custom Color Formula / Satin	A-100	Exterior Wood / Fiber Cement lap siding / Dumpster enclosure Steel posts and CMU	Exterior Fiber Cement Siding / Dumpster Gates, Posts, and CMU / Patio Trusses and Support Beams
P-4a	Primer	Sherwin Williams	Base: Tint 50%	Quick Dry Stain Blocking Primer	Exterior Wood / Fiber Cement lap siding	---
P-4b	Primer	Sherwin Williams	Base: Tint 50%	Loxon Block Surfacer	Dumpster Enclosure CMU	---
P-4c	Primer	Sherwin Williams	Base: Tint 50%	Pro-cryl Universal Primer / Off-White	Dumpster Enclosure Steel Posts	---
P-5	Paint	Sherwin Williams	SW 6258 - Tricorn Black/ Semi-Gloss	DTM Acrylic / Ultradeep	HM Doors & Frames	---
P-5a	Primer	Sherwin Williams	Base: Tint 50%	Pro-cryl Universal Primer / Off-White	---	---
P-6	Paint	Sherwin Williams	B66R308	Sher-cryl HPA High Performance Acrylic Red	---	---
P-6a	Primer	Sherwin Williams	Base: Tint 50%	Pro-cryl Universal Primer / Off-White	---	---
P-7	Paint	Sherwin Williams	SW 0055 - Light French Gray/ Semi-Gloss	Promar 200 Zero VOC	Restroom Gyp walls, Cavity for Merchandiser	---
P-7a	Primer	Sherwin Williams	---	Pva Drywal Primer & Sealer / White	---	---
P-8	Paint	Sherwin Williams	SW2848 Roycroft Pewter/ Semi-Gloss	Promar 200 Zero VOC	WC-1 Low Dining Walls	---
P-8a	Primer	Sherwin Williams	Gray	Premium Wall and Wood Primer - White	---	---
P-9	Paint	Sherwin Williams	B66R308 - see Finish Note 5	---	Dining Room Ductwork, excludes Grills / Bollard Color for Exterior	---
P-9a	Primer	Sherwin Williams	Gray	Pro-cryl Universal Primer / Off-White	---	---
P-10	Paint	Sherwin Williams	SW 2850 Chelsea Gray	A-100	Existing exterior wood siding	
P-10a	Primer	Sherwin Williams	Gray	Premium Wall and Wood Primer - White		
ST-1	Wood Stain	MINWAX	---	Classic Gray Premixed Wood Stain / Clear Coat Finish	Cashier, Entry and Restroom Corridor	Brushed on / Wiped off - Stain all Exposed Edges before Installation - (gray prime osb) Installed Horizontally
ST-1a		Sherwin Williams	---	Fast Dry Vinyl Sealer	---	---
ST-1b		Sherwin Williams	---	Hi-build Precast Lacquer / Stain	---	---
ST-2	Wood Stain	MINWAX	Ebony-2718	Wood Finish Penetrating Stain / Clear Coat Finish	Entry Queue Ceiling	Brush on / Wipe off
ST-3	Wood Stain	Sherwin Williams	River wood	---	Service Yard or Cooler Fence	---
T-1	Subway Wall Tile	EMSER	Flex 4"x16" Gloss	Schluter Cove Base Dilex in Brushed Graphite	Restroom Lower Walls to 5'-0"	Plank pattern, 1/8" spacing, Grout to be custom Prism #60 charcoal
T-2	Wood-look Floor Tile	EMSER	---	Beach Wood Tahoe 8"x34"	Entry/ Cashier/ Dining/ Corridor/ Restroom Floors	Plank pattern, 1/8" spacing, Grout to be custom Prism #60 charcoal; Ref A1.4 for tile pattern direction
T-3	Hexagon Wall Tile	EMSER	Matte white	Code Hexagon (Flat)	Wall at Beverage Counter / POS Die Wall	Grout to be custom prism #60 charcoal
WC-1	Wood Wainscot	TRIMARK	P-8	4" x 4" MDF Routed Panels	Dining Lower Walls to 4' 10 1/4	See Detail
WCT-1	Wood Ceiling Plank	Local supplier	ST-2	Tongue and groove 6" wood plank	Entry / Cashier Ceiling	Plank pattern / Runs Perpendicular to Entry Doors
WP-1	Wood Plank	Local supplier	ST-1	1"x12" wood plank	Entry / Restroom Corridor (optional)	See Detail, All Butted Joints, no Miter Cuts

architect

NVIRONMENT
COLLABORATION + CREATION
614.725.4644
www.nvironmentdesign.com
27 east russell street
columbus, ohio 43215

client

SLIM CHICKENS

Slim Chickens
2170 E 1st Street, Grimes, IA. 50111

issued

planning/zoning	Sept 28, 2022
demo permit	Oct 7, 2022
bldg permit	
bid	
construction	

revisions

seal

LICENSED PROFESSIONAL ARCHITECT
CHRISTOPHER PATRICK COLLINS
IOWA

06/30/24

sheet

A0.01

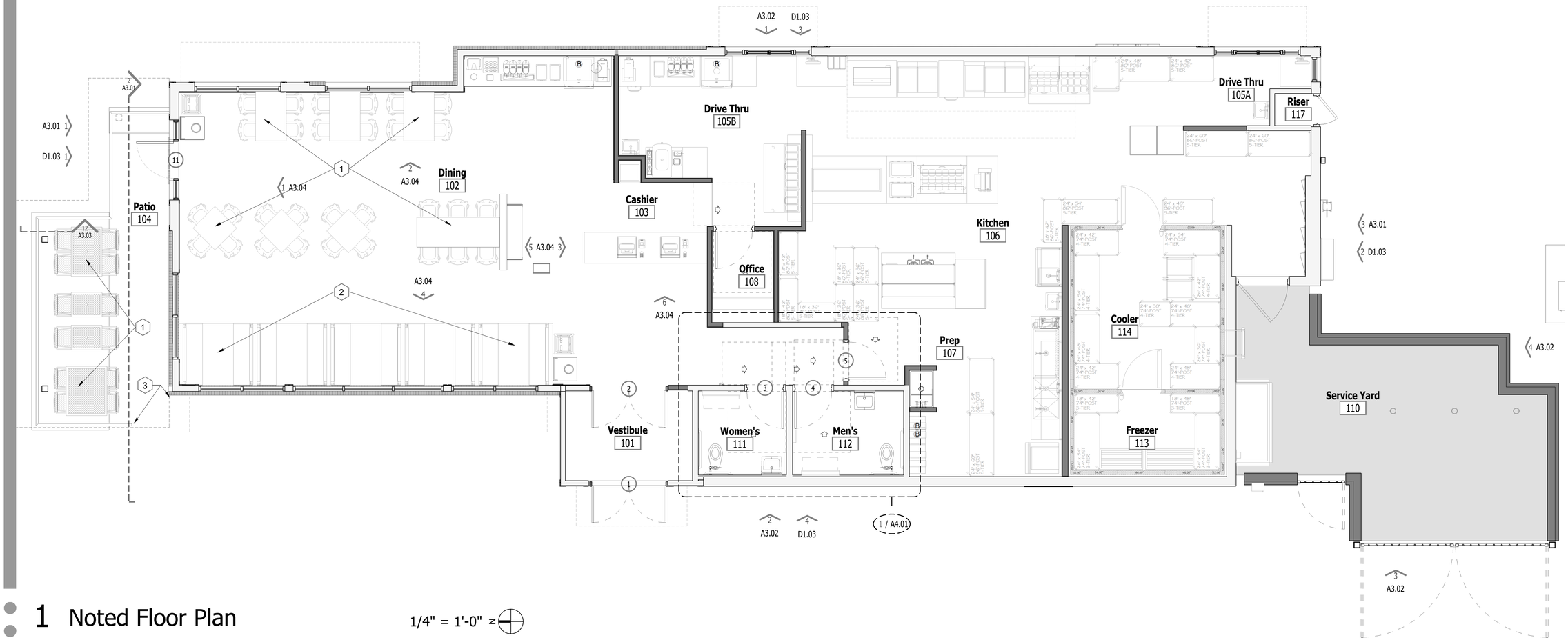
Finish Schedules

keyed note schedule

Note #	Description
1	Loose tables and chairs
2	Fixed booths
3	Railing open for building ingress/egress

plan general notes

1. General contractor shall coordinate project scope with appropriate utility companies supplying services to the space prior to commencement of work.In general, new materials and materials for repair conditions, shall match similar items in quality, detail, profile, and finish, as those already built into the work.
2. Align new wall framing where new construction abuts existing conditions, unless detailed otherwise.
3. Patch and repair any surface or other item damaged by or involved in construction activites to "as new" condition. Refer to engineering drawings for p/m/e work that may require patching by general trades contractor.
4. In general, new materials and materials for repair conditions, shall match similar items in quality, detail, profile, and finish, as those already built into the work.
5. All dimensions are to witnessed to face of stud for new construction and to wall finishes for existing construction unless otherwise noted.
6. Provide sufficient blocking for all items fastened to stud walls, including trim, even if not specifically shown.
7. All systems that are suspended from above must be anchored to the structure. All "framing to deck" is to be set in deflection track secured to the underside of slab.
8. Use stainless steel or galvanized screws and fasteners for backer board, and moisture-resistant Gypsum board.
9. Coordinate framing with fire protection system so as not to impede or damage existing or new piping.
10. Refer to Door Elevations and Schedule sheet for door information.
11. Refer to Window Elevations sheet for window information.



1 Noted Floor Plan

1/4" = 1'-0"

architect

NVIRONMENT
COLLABORATION + CREATION
614.725.4644
www.nvironmentdesign.com
27 east russell street
columbus, ohio 43215

client

SLIM CHICKENS

Slim Chickens
2170 E 1st Street, Grimes, IA. 50111

issued

planning/zoning	Sept 28, 2022
demo permit	Oct 7, 2022
bldg permit	
bid	
construction	

revisions

seal

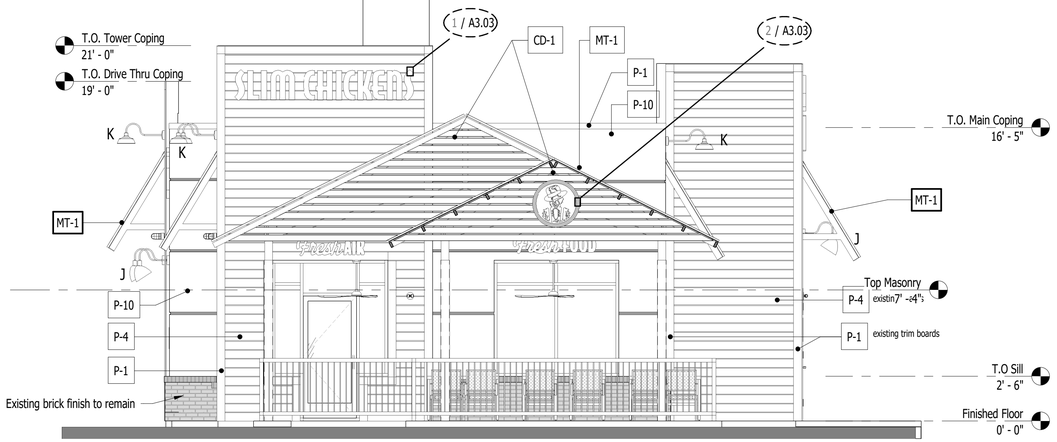
LICENSED PROFESSIONAL ARCHITECT
CHRISTOPHER PATRICK COLLINS
IOWA

06/30/24

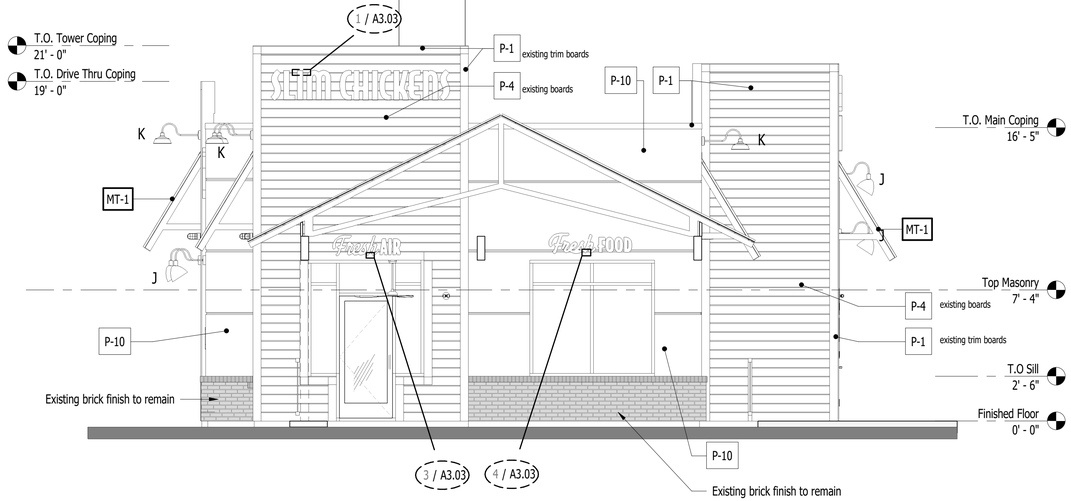
sheet

A1.02

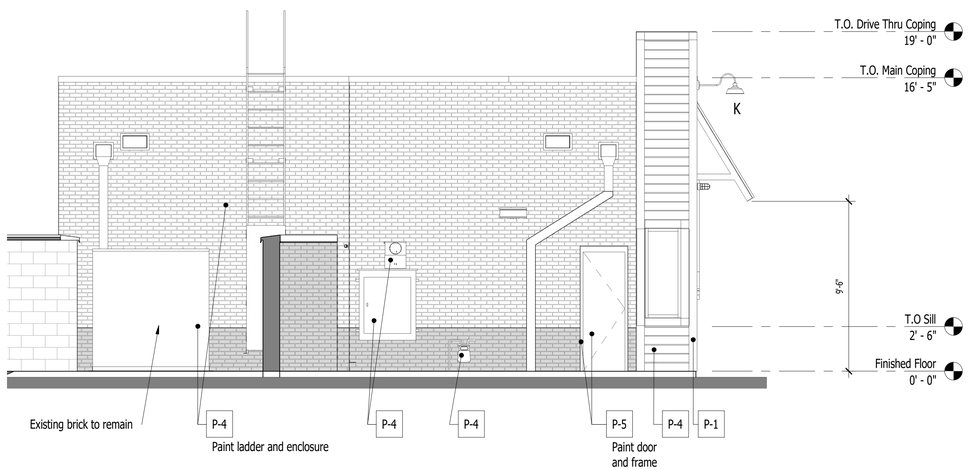
Noted Floor Plan



1 North 1/4" = 1'-0"



2 North Porch Elevation / Section 1/4" = 1'-0"



3 South 1/4" = 1'-0"

architect
NVIRONMENT
COLLABORATION + CREATION
614.725.4644
www.nvironmentdesign.com
27 east russell street
columbus, ohio 43215

client
SLIM CHICKENS
Slim Chickens
2170 E 1st Street, Grimes, IA. 50111

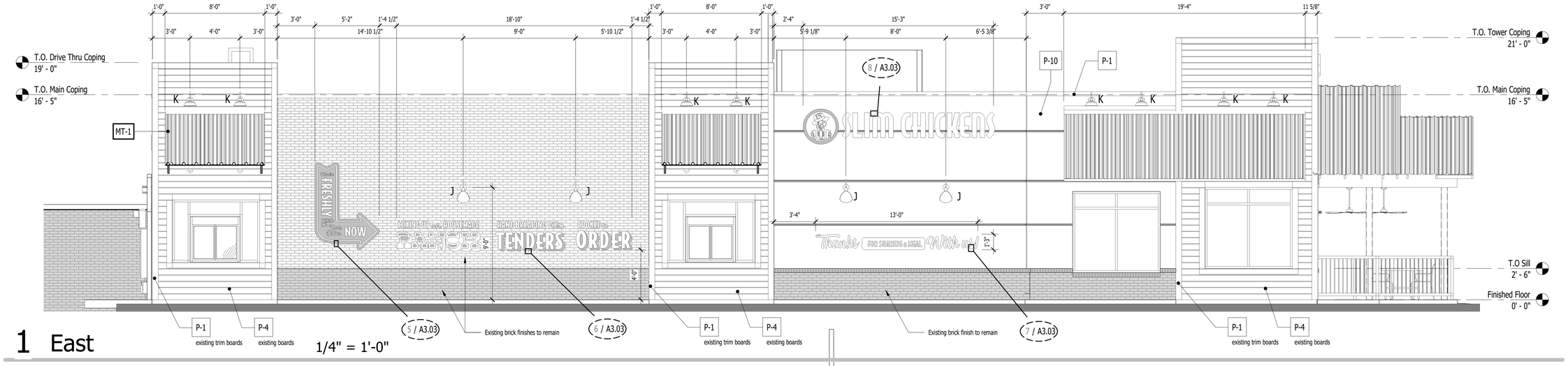
issued

planning/zoning	Sept 28, 2022
demo permit	Oct 7, 2022
bldg permit	
bid	
construction	

revisions

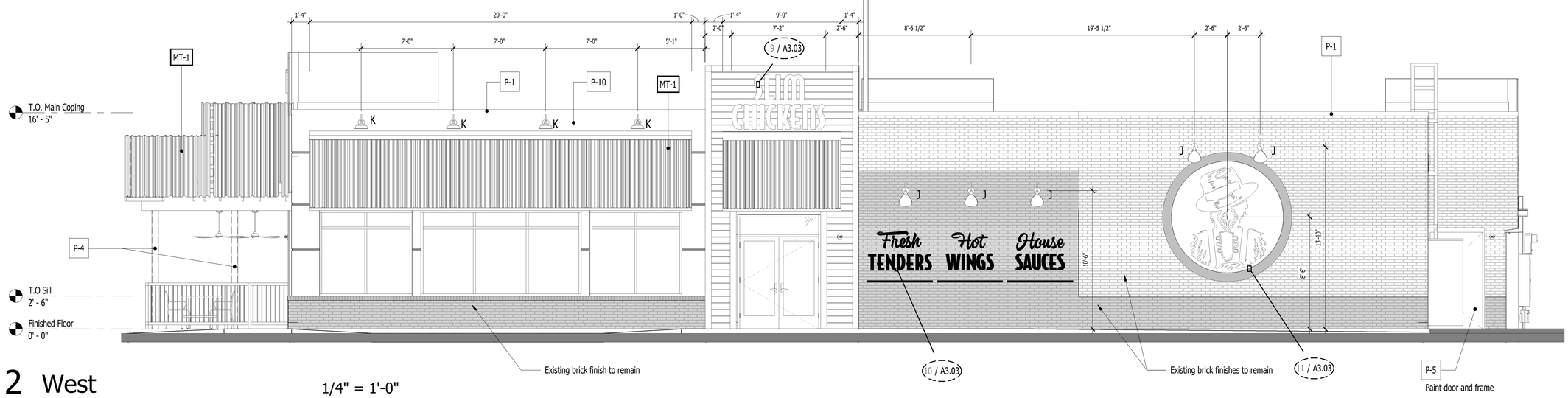
seal
LICENSED PROFESSIONAL ARCHITECT
CHRISTOPHER PATRICK COLLINS 24,378
IOWA
06/30/24

sheet
A3.01
Exterior Elevations



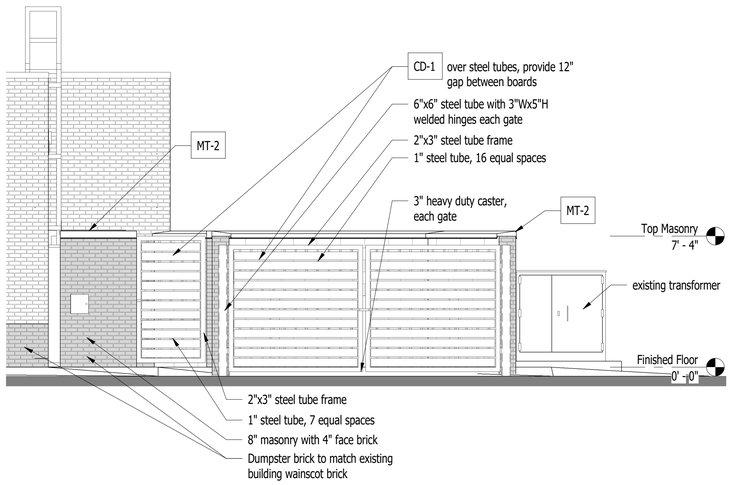
1 East

1/4" = 1'-0"



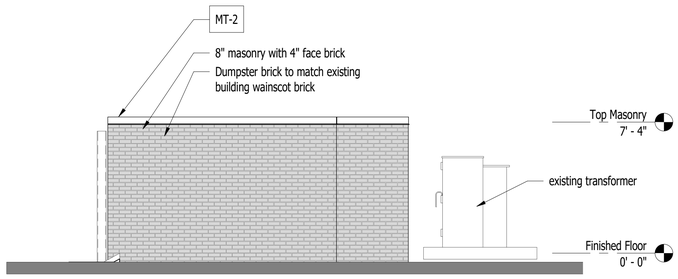
2 West

1/4" = 1'-0"



3 West Dumpster

1/4" = 1'-0"



4 South Dumpster

1/4" = 1'-0"

architect
NVIRONMENT
COLLABORATION + CREATION
614.725.4644
www.nvironmentdesign.com
27 east russell street
columbus, ohio 43215

client
SLIM CHICKENS
Slim Chickens
2170 E 1st Street, Grimes, IA. 50111

issued

planning/zoning	Sept 28, 2022
demo permit	Oct 7, 2022
bldg permit	
bid	
construction	

revisions

seal

LICENSED PROFESSIONAL ARCHITECT
CHRISTOPHER PATRICK COLLINS
IOWA

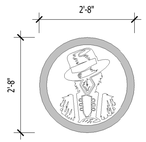
06/30/24

sheet

A3.02

Exterior Elevations

1 Main Slims 1/2" = 1'-0"

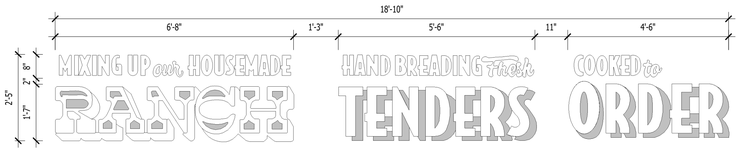


2 Logo Small 1/2" = 1'-0"

3 Fresh Air 1" = 1'-0"

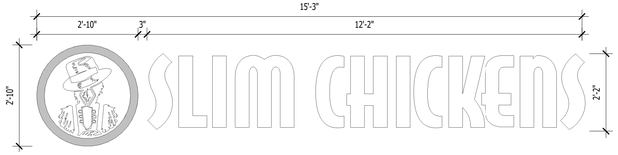
4 Fresh Food 1" = 1'-0"

5 Arrow Large 1/2" = 1'-0"

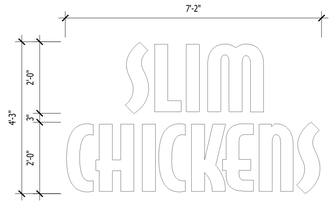


6 Ranch, Tenders, Order Large 1/2" = 1'-0"

7 Thanks for Sharing 1/2" = 1'-0"

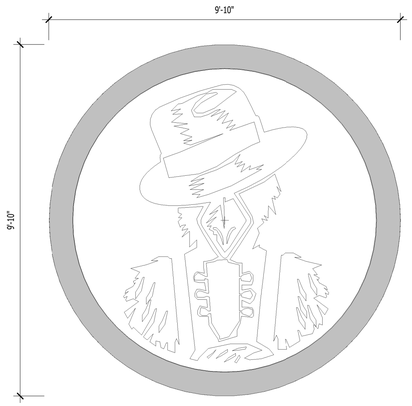


8 Main Logo Left 1/2" = 1'-0"

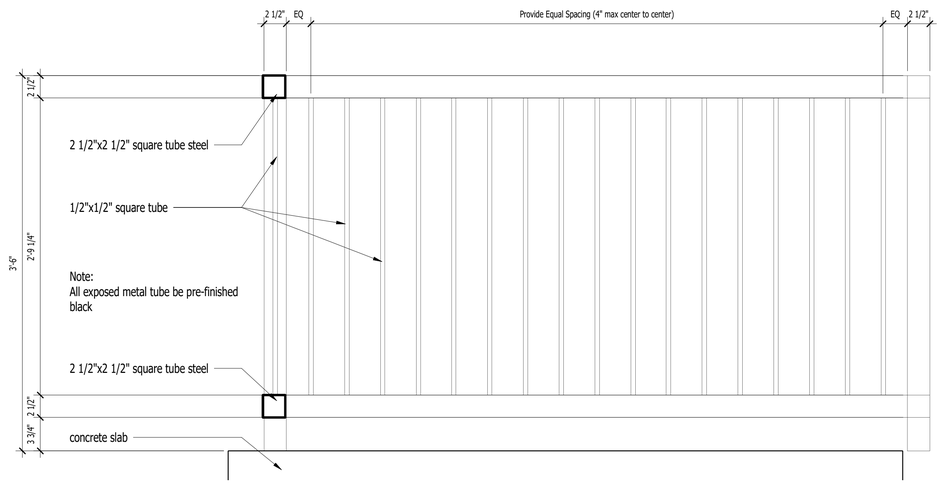


9 Main Slims Stacked 1/2" = 1'-0"

10 Tenders Wings Sauces 1/2" = 1'-0"



11 Logo Large 1/2" = 1'-0"



12 Railing Section 1 1/2" = 1'-0"

architect
NVIRONMENT
COLLABORATION + CREATION
614.725.4644
www.nvironmentdesign.com
27 east russell street
columbus, ohio 43215

client
SLIM CHICKENS.
Slim Chickens
2170 E 1st Street, Grimes, IA. 50111

issued

planning/zoning	Sept 28, 2022
demo permit	Oct 7, 2022
bldg permit	
bid	
construction	

revisions

seal
LICENSED PROFESSIONAL ARCHITECT
CHRISTOPHER PATTON COLLINS
IOWA
06/30/24

sheet
A3.03
Signage Details

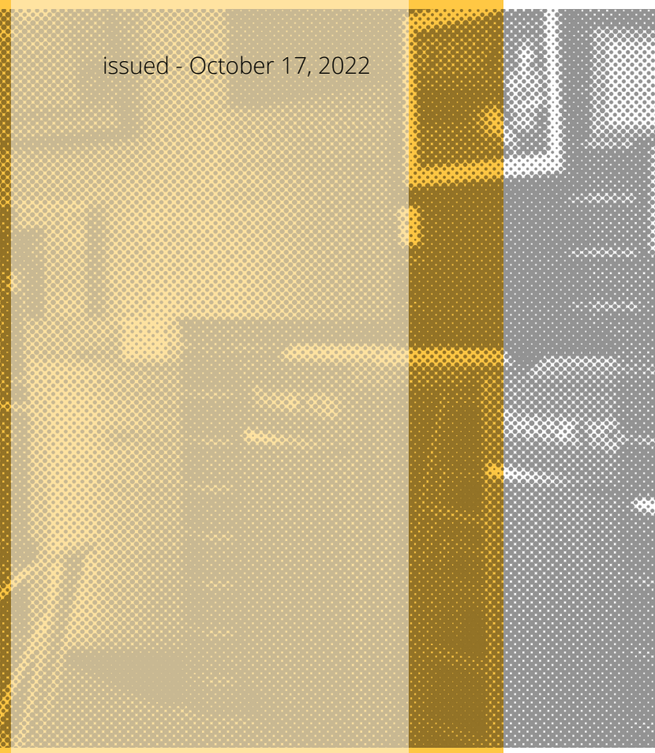
NVIRONMENT

COLLABORATION + CREATION

SLIM CHICKENS

Grimes, IA

issued - October 17, 2022



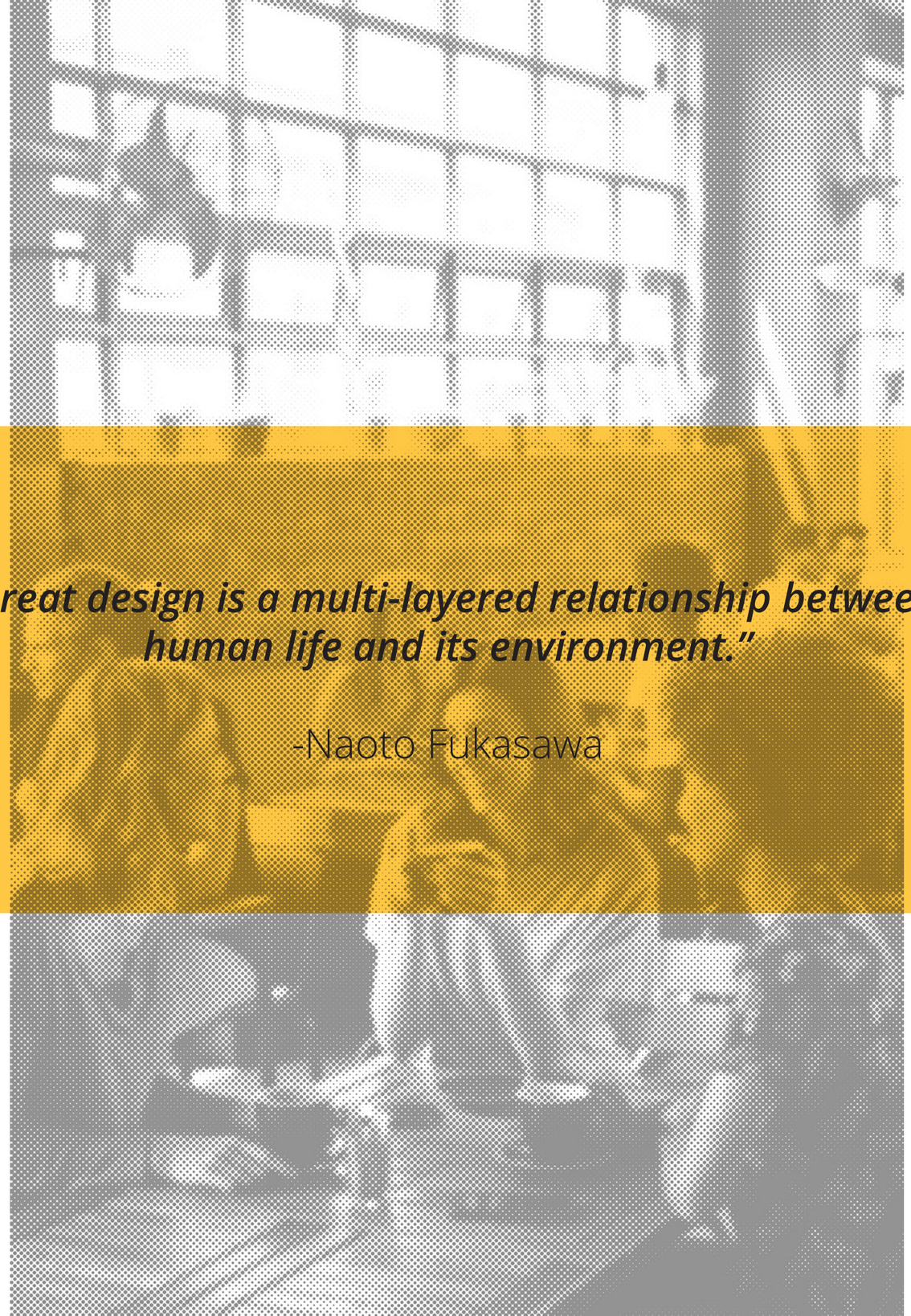
27 east russell street · suite 300
columbus, ohio 43215 · 614.725.4644
www.nvironmentdesign.com

EXTERIOR VIEW - NORTHEAST

SLIM CHICKENS®

EXTERIOR VIEW -NORTHWEST

EXTERIOR VIEW -SOUTHWEST



“Great design is a multi-layered relationship between human life and its environment.”

-Naoto Fukasawa

Project # 21-1009: Grimes Plex – Site Plan

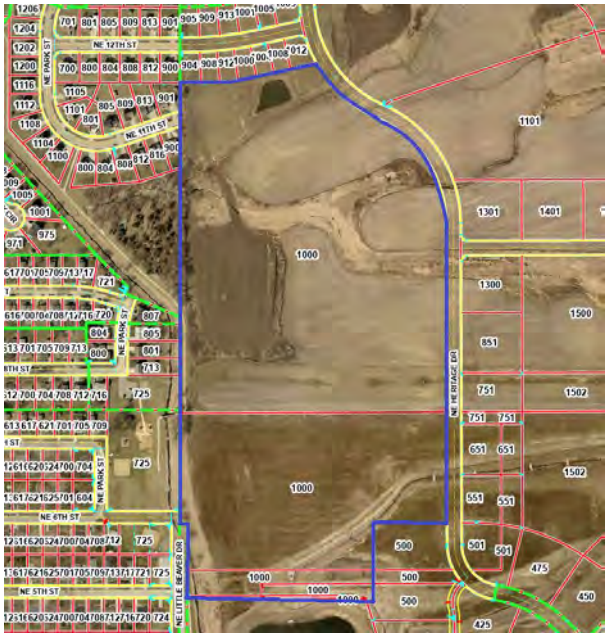
Planning & Zoning Staff Report

TO: Planning and Zoning Commission
FROM: Evann Martin, Assistant Planner
DATE: November 1, 2022
RE: Grimes Plex – Site Plan

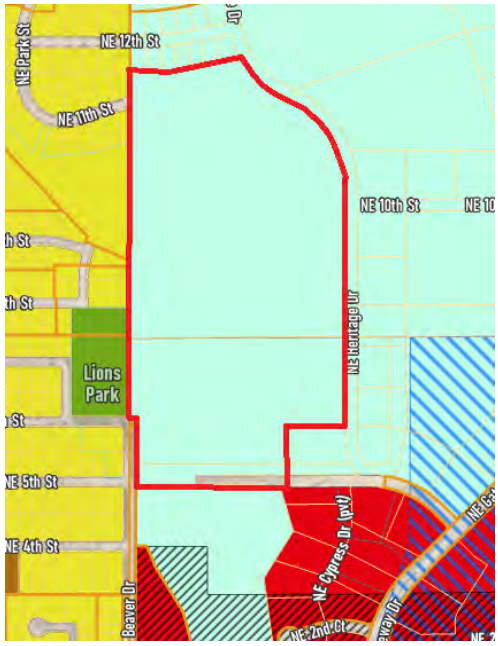
GENERAL INFORMATION:

Applicant:	City of Grimes
Requested Action	Site Plan
Location	1000 NE Heritage Drive

SUPPORTING INFORMATION:



Location Map



Zoning Map

LAND USES & ZONING:

Location	Existing Land Use	Land Use Plan Designation	Current Zoning
Subject Site	Vacant	Commercial	R-4
North	Vacant	Single-Family/Mixed Residential	R-4
South	Vacant/Commercial	Commercial	C-2
East	Vacant	Commercial	R-4
West	Single-Family Residential	Low Density Residential	R-2

BACKGROUND:

The City is requesting approval of the site plan for the Grimes Plex, a 45 acre synthetic turf sports complex, generally located west of NE Heritage Drive in the Hope Commercial district. The property is zoned R-4 as part of the Hope Commercial PUD and is not located within an overlay district.

ANALYSIS:

Site Layout:

The site will have three access points from NE Heritage Drive and one from NE Cypress Drive. Pedestrian connectivity will be provided along NE Heritage Drive, NE Cypress Drive, and from the trail around the Hope Commercial detention basin. Sidewalk connections into the site will be provided from the public sidewalks at the driveway entrances as well as from the trail. Within the sports complex, 20′ and 40′ walkway paths will be provided around every sports field pod.

Two parking lots will be provided on the north and south side of the sports complex. The larger north parking lot is designed to include gates that will give the City, or event coordinators, the ability to charge for parking. The south parking lot will not include these features, and access will be uncontrolled.

The sports complex will be completely fenced in with 6′ black vinyl coated chain-link. Spectators will gain admission through the two main entrance points. Restroom and concession buildings will be located near each entrance point in the future. Vehicle drop-off areas will also be provided at the main entrances.

Six multi-sport field pods will be located in the center of the site. Each pod can accommodate both soccer and baseball fields for a total of 12 soccer and 18 baseball fields across the site. The fields will be enclosed with 6′ black vinyl coated chain-link fencing. Behind the baseball backstops and soccer goals, back stop and ball control netting will be provided to shield spectators from stray sport balls. Two covered dugouts will be provided at each baseball field.

Pole mounted light fixtures will be installed within the north and south parking lots. Field lighting will be approved and installed with a future phase.

In addition to the Grimes Plex facility, improvements will be made to terminate NE 11th Street. A hammerhead turn around will be constructed where the street currently terminates to provide adequate turning space for emergency response vehicles. The neighboring residential property owners desire to keep the Grimes Plex separate from NE 11th Street. As such, a sidewalk connection from NE 11th Street will not be provided into the sports facility. Instead, two new ramps will be constructed to provide ADA accessible crossing at the end of NE 11th Street and provide a sidewalk loop. To provide additional separation and screening from the Grimes Plex, a berm and evergreen landscape buffer will be installed on the east side of the existing single-family homes and the east side of the hammerhead.

Building/Elevations:
Building design for the restrooms, concessions, and maintenance buildings will be completed with a future phase and will be reviewed and approved by P&Z and Council. The only building-like structures that are part of this phase will be the covered dugouts. Each dugout will be constructed of four fence posts with standing seam metal roofing and enclosed with black vinyl coated chain-link fencing.

Parking:
Parking is provided on the north and south side of the sports fields. The PUD requires a minimum of 750 parking space for the facility. As designed, a total of 1,155 parking spaces will be provided. After continued research on comparable sized sport complexes, staff determined that around a 1,000 parking spaces is ideal for the site to function and account for the switching shifts of visitors.

Landscaping/Streetscape:
The site meets the minimum required number of plantings for the Hope Commercial PUD. Trees will line the east property line along NE Heritage Drive and will be placed within the parking lot islands. Landscape buffers will be planted along the north and west property line adjacent to the existing and future single-family residential lots.

Utilities:
New 6" sanitary sewer services will connect to the existing sanitary sewers running across the north and center of the site. Grease interceptors will be installed in the future with the construction of the concession buildings.

New 6" water services will be stubbed into the site from NE Heritage Drive to service the future restroom, concession, and maintenance buildings. Appropriate hydrant locations will be provided near the building pad sites.

Detention is handled within the regional detention basins located just south and west of the site.

STAFF RECOMMENDATION:
Staff would recommend approval of the site plan for the Grimes Plex subject to any remaining staff comments.

CITY OF GRIMES

Evann Martin
Assistant Planner

Development Services
410 SE Main St, Suite 102
Grimes, IA 50111
(515)986-4050
www.grimesiowa.gov

~~July 5, 2022~~
~~August 15, 2022~~
~~August 17, 2022~~
~~September 15, 2022~~
~~September 20, 2022~~
October 12, 2022

Civil Design Advantage
Attn: Josh Trygstad
3405 SE Crossroads Drive, Suite G
Grimes, IA 50111

RE: Grimes Plex Site Plan

Dear Mr. Trygstad:

The Development Services Department is in receipt of a proposed Site Plan for the Grimes Plex. Based on the review of the provided submittal materials, staff have the following comments:

General Comments:

1. ~~Provide a separate SWPPP for this site for review.~~

2. ~~On all the infield areas of fields, can you verify which way the 12' gates will swing for all the field clusters. Currently the gates are swinging in according to the plans. The path of egress would be to swing out.~~

3. ~~Please provide a title for each sheet within the plan set.~~

4. ~~Provide labels/details for all utility structures and grading.~~

5. ~~Provide a Demo Plan.~~

6. ~~Provide photometric plan for parking lot and field lighting. Lighting plan to be submitted at a later date.~~

7. ~~Update City notes with attached notes for public improvements.~~

8. ~~Please make the fencing symbol for distinguishable on the plans.~~

9. ~~Check labels throughout. There are a few labels that are not pointing to the correct location or site feature.~~

10. ~~Update parking lot to new layout.~~

11. Staff to complete floodplain permit.

12. ~~Are the discharge points leading into the current ponds? Or are the discharge points where the ponds outlet into the creek?~~

13. ~~Grimes Plex will need its own NDPES permit. While it is on the ground of Hope Commercial Plat 4, we will need a new permit as there may be other contractors on this site. Staff/contractor to pull permit once project is bid.~~

14. ~~SWPPP calls for a bio-retention area, please show on site plan and include details or remove from SWPPP~~

15. ~~Reduce fencing and netting around the fields.~~

16. ~~For the dugouts, can we look at other alternatives to reduce cost? We've seen some dugouts with shade sails, some made from wood, some that do not have fencing around the back. If we went with shade sails, could we mount the sails to the top of the fence posts or provide taller fence post so the sails could attach? One benefit to the sails is that they could come in different colors which could allow us to provide a color for each pod to better direct/orient people. Below are some images we found with potential options or that may spark other ideas.~~

~~17. Label TSB 1 and TSB 2 to match SWMP information.~~

Cover Sheet:

~~1. Update legal description to remove "lots to be platted".~~

~~2. Add property address – 1000 NE Heritage Drive~~

~~3. Update parking space count.~~

~~4. Update applicant/owner to City of Grimes 101 NE Harvey St~~

C1.1:

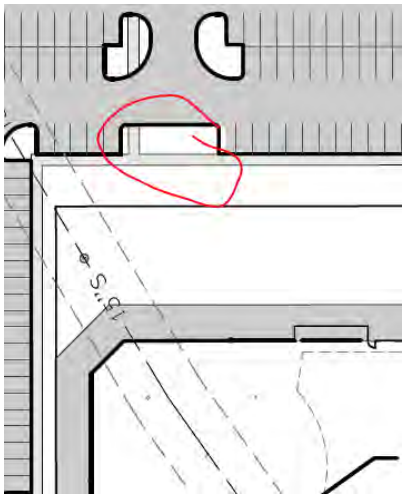
~~1. Complete ERI.~~

C3.0

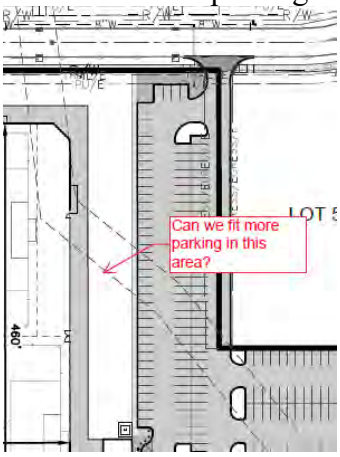
~~1. Has Mid Am weighed in on the transformer locations?~~

~~2. We need to consult the neighborhood about the sidewalk connection to 11th Street. Please remove sidewalk connection. The neighborhood does not want the connection.~~

3. ~~Staff is evaluating the location of the maintenance building at the NE corner of the sport fields. Providing a vehicle ramp/driveway for access to the future maintenance building would be desired in the area below. Staff to provide information with building design process.~~

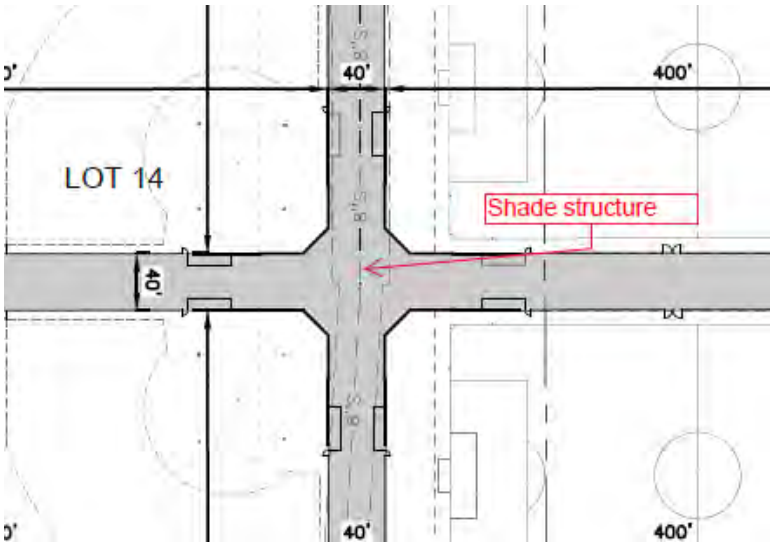


4. ~~Could more parking be added here?~~



5. ~~Remove the building footprints from the site plan since these will be part of a future plan.~~

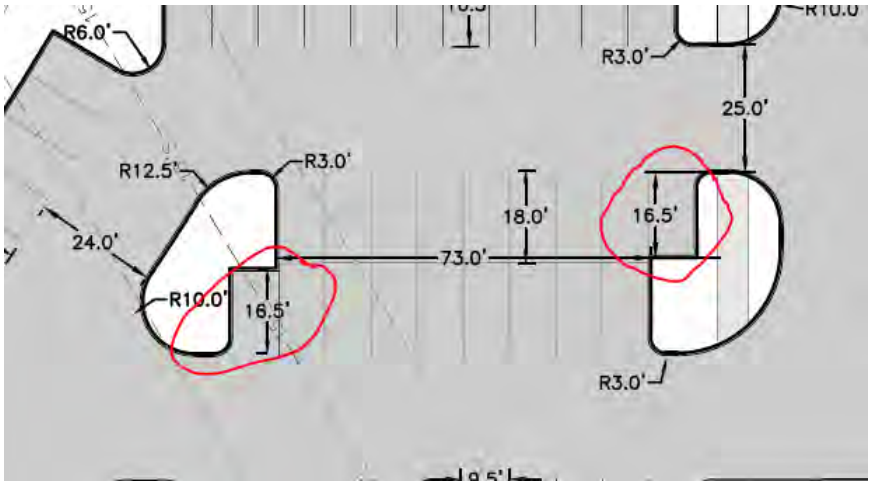
6. ~~If a shade structure is to be added in this area in the future, what sort of considerations need to be made now to accommodate the construction? The structure would need footings. How can that be incorporated into the design? Can the footings be poured before the paths are poured? Staff will investigate if this is something we want to incorporate.~~



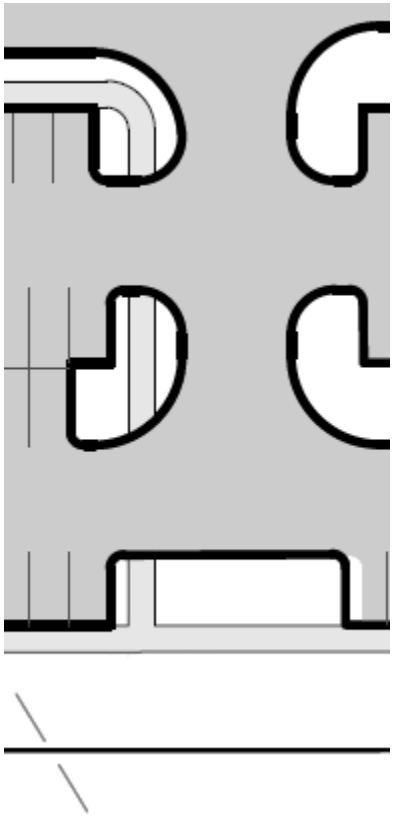
C3.1

1. ~~Where parking stalls that are 16.5' deep abut a sidewalk, please widen the sidewalk to 8'.~~

2. ~~Please adjust the end parking stalls to 18' deep. Adjust this across the site.~~



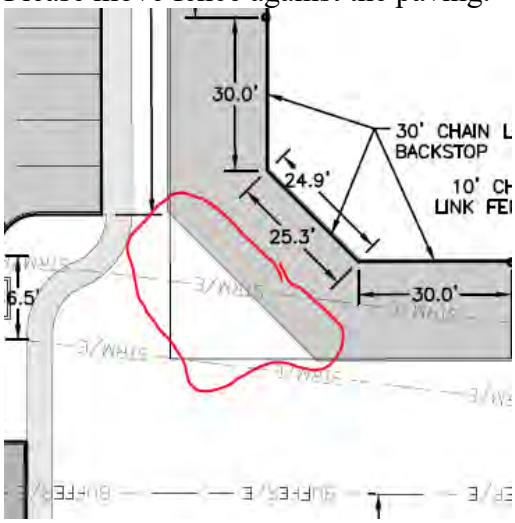
3. ~~Provide ramps.~~



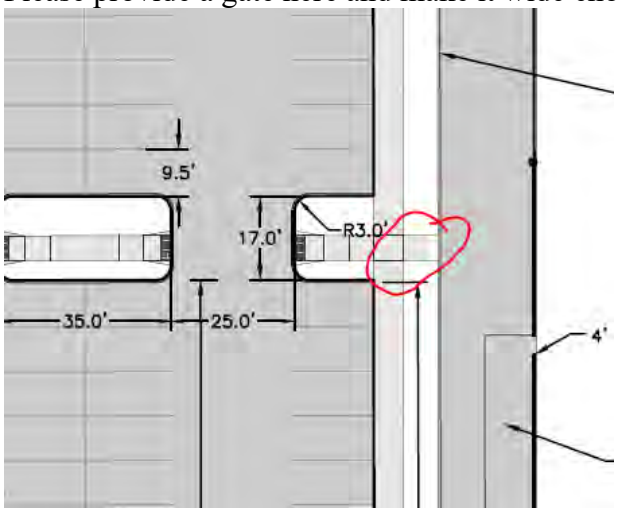
4. ~~Please label flush curb at the two main entrances into the facility.~~

C3.2

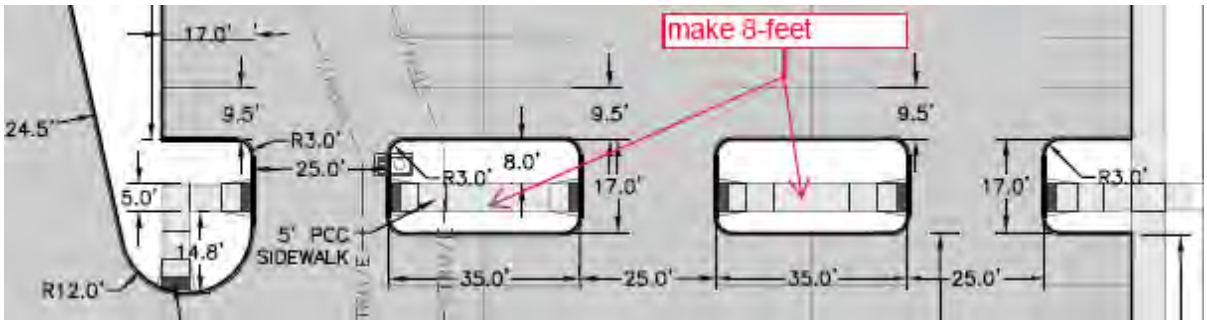
1. ~~Please move fence against the paving.~~



2. ~~Please provide a gate here and make it wide enough for a vehicle.~~



3. ~~Make sidewalk 8' wide.~~

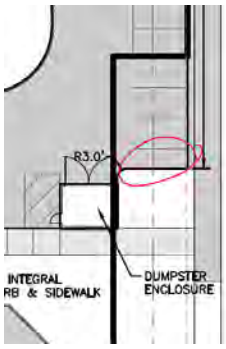


4. ~~Please widen the north access ramp into the sport fields to 10' so vehicles can access the site.~~

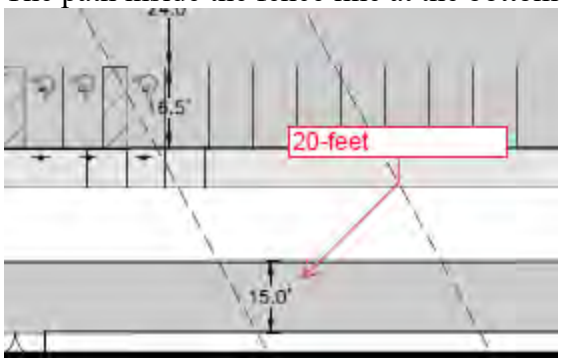
C3.5

1. ~~Where parking stalls that are 16.5' deep abut a sidewalk, please widen the sidewalk to 8'.~~

2. ~~Please move the curb line out to remove the space.~~



3. ~~The path inside the fence line at the bottom of the page needs to be 20' wide.~~



C3.6

1. ~~Provide retaining wall detail. Could a poured concrete wall be provided instead?~~

C4.0 – C4.2:

1. ~~Label floodplain boundary. The boundary isn't showing on 4.1 and 4.2.~~

C4.7 & 4.8:

1. ~~Revise cross slopes to no more than 2%.~~

2. ~~Provide slope and cross slope details for ADA parking.~~

C4.9 & C4.15

1. ~~Show proposed gravel construction entrance(s)~~

2. ~~Show proposed staging area~~

3. ~~Include usage of drainage arrows shown in legend~~

4. ~~Include inlet protection for all intakes, including the ones in t the future parking area.~~

5. ~~Volume control measures are recommended within overland flow areas.~~

6. ~~Are future lots 15-56 part of this site plan? If not, maybe we should exclude the sediment control measures drawn on C4.10 within the drainage swales.~~

7. ~~Provide a quantities table for sediment controls, total area of disturbance, temporary stabilization, construction entrance, concrete washout, and inlet protection.~~

8. ~~Provide curb controls along future NE Heritage Drive.~~

9. ~~Provide your topsoil stockpile location.~~

10. ~~Are perimeter controls (including curb line controls) counted within the item quantities?~~

11. ~~Show bio-retention called out within SWPPP~~

12. ~~Please make sure that the stabilization quantities on sheet C4.9 match the quantities called out on sheet C1.0 line items 9.11 through 9.20. There appears to be some differences in the quantities.~~

C5.0-5.6

1. ~~Water utilities are not shown on the plans (Sheets C5.0-C5.6). There are callouts for the water but do not show the lines, hydrants, etc.~~

C5.1

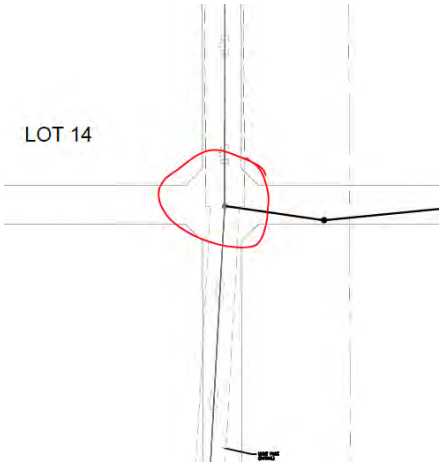
1. ~~Verify utility labels are in correct locations. Several labels are not over the respective infrastructure.~~

2. ~~There is a call out for a hydrant that would be located over 300 feet from the buildings.~~

3. ~~Please extend the storm sewer south of the fence line for future building roof drains to connect. The building is now outside of the fence line. Please shift fence to enclose the green space.~~

4. ~~Please provide water service stubs to future building locations.~~

5. ~~Provide water service to the center path intersection for future water bottle filling station.~~



6. ~~Should the sanitary and water services be extended outside of the pavement to make future construction easier/avoid tearing up concrete?~~

C5.2

1. ~~Connect turf drainage to storm sewer.~~

C5.5

1. ~~There is a call out for a hydrant in the middle of a parking stall.~~

2. ~~What is the Null Structure from ST-24 over towards the south pond?~~

C5.6

1. ~~Connect turf drainage to storm sewer.~~

2. ~~Should the sanitary and water services be extended outside of the pavement to make future construction easier/avoid tearing up concrete?~~

C5.2 & C5.6

1. ~~Where do the storm lines within the field run to? Are they slope drains that will need volume controls at the banks of the ponds?~~

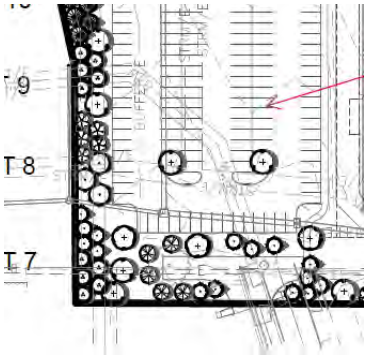
C6.0:

1. ~~For the landscape buffers, please separate the trees types more evenly throughout the buffer rather than grouping each type. Separating the trees types will provide more~~

consistent screening for each resident. Spreading the evergreen trees more evenly across the north landscape buffer would help to provide a more consistent buffer screen for the single-family lots. As currently shown, some of the lots have more full coverage screening than others. For example, Lot 13 has a high concentration of evergreen trees while Lot 8 doesn't have any. Please provide a few different varieties of evergreen trees within the buffer.

2. Please change the trees along the east property line of 900 and 901 NE 11th St to varying types of evergreens and add some additional evergreen trees to the berm. The neighborhood desires to have year-round screening. Please provide evergreen trees along 901 NE 11th Street and provide a few different evergreen tree species along both 900 and 901 NE 11th St. Please add some additional evergreens to the berm on the east side of the turn around.

3. Remove a row of stalls (6 stalls) to allow for more green space next to the turn around.



4. Please move the north buffer trees outside of the storm sewer easement.

C6.1

1. Shift trees in the parking islands away from the utilities if possible or move to another island. Please shift tree away from storm on Sheet 6.5.

2. Please provide an overstory tree in each parking island, except where utility conflicts exist.

C6.2

1. Please switch the evergreen trees next to the sidewalk f from the sidewalk from NE 11th St into the parking lot to overstory and understory trees to avoid conflicts with evergreen trees growing over the sidewalk.

~~2. Shift trees outside of the watermain easement.~~

C6.3

~~1. Shift tree away from sanitary sewer.~~

C6.4

~~1. Shift trees away from utilities and trail.~~

C6.5

~~1. Fix shrub labels/locations. Appear to be randomly placed. Screen the transformer.~~

C7.1

~~1. Please remove the dumpster, directional sign, and roof drain connection details.~~

C7.6

~~1. Specify that the backstops are to be black vinyl chainlink.~~

C8.0:

~~1. In the driveway detail, revise joint to E joint on both sides of the sidewalk. Was the detail removed? It doesn't appear on the plans.~~

SWPPP:

1. Please fill out SWPPP checklist (attached) Please fill out remaining items once contract has been awarded and more information can be provided.

~~2. Sign Owner Certification Statement~~

~~3. Provide proper legal description of site (1/4,1/4, Section, T and R)~~

4. Provide site supervisor contact information once available

5. Provide SWPPP monitoring contact information once available

~~6. Site Assessment~~

~~a. Not all of hope commercial plat 4 is platted for single family residential~~

~~7. Include an updated city code of ordinances~~

~~8. Page 43: Change Address and phone number for Kendra Daniels to Public Works~~

~~a. 1700 SE Destination Drive~~

~~b. 515-986-9636~~

~~9. Provide new NOI for Grimes Plex as we will need a permit for the new project since there will likely be other contractors Change the facility name within the NOI to "Grimes Plex" from "City of Grimes: Grimes Plex"~~

10. Provide and include a signed affidavit of publication DNR may require new affidavit of publication because a new permit is being pulled.

~~11. Provide and include an updated IDNR letter of authorization with the Grimes Plex permit information. Remove authorization letter for Hope Commercial Plat 4 (page 65) and include only authorization letters for the Grimes Plex~~

12. Remove Notice of general permit coverage for Hope Commercial Plat 4 (Page 69) and include this information only for the Grimes Plex Remove current permit number from NOD within SWPPP file to avoid future confusion. Still need to remove page 69 that authorizes Hope Commercial Plat 4.

13. provide and include an updated NOD with new permit number when permit is pulled for the Grimes Plex

14. include an updated construction schedule once available

15. provide and include a signed copy of the contractors and sub-contractor's certification statement for each contractor and sub-contractor prior to preforming any work on site.

16. Include an up to date site plan once final plans are accepted and signed.

~~17. Plan to use a roll off concrete washout for major pouring operations and other SUDAS approved concrete washouts for any smaller pours. These washouts will need hauled off site and properly disposed of by the concrete contractor. Washing out on bare ground is **not permitted**.~~

18. Update SWPPP inspector's information once known

~~19. Disturbed area should not be greater than total area of site. Please revise one or the other.~~

~~20. Provide city ordinances on Illicit Discharges and Post Construction~~

21. Update permit numbers on the SWPPP certification for residential lot or site plan (page 70) to the permit number for the Grimes Plex once provided. (remove permit numbers for time being to avoid future confusion)

22. Include the erosion and sediment control maps from Site Plan Keep up to date with submittals

Stormwater Management Plan (SWMP)

1. ~~Pipe Capacity Spreadsheets: Update information for pipes: L-2, L-5, L-6, L-8, L-10, L-12, L-13, L-14, L-15, L-33, L-48, L-55, L-62, L-63, L-65.~~

2. ~~Pipe Capacity Spreadsheets: Update information for pipes: L-8, L-10, L-12, L-13, L-14, L-15, L-33, L-48, L-55, L-62, L-63, L-65.~~

~~Site Plan (SP)~~

1. ~~Sheets 5.1 to 5.6: Add critical crossing labels.~~
2. ~~Sheet 5.1: Add a drop at ST-64.~~
3. ~~Sheet 5.1 ST-60: It appears downstream pipe is higher than upstream pipe.~~
4. ~~Sheet 5.1: L-32 information is missing.~~
5. ~~Sheets 5.5: Is L-20A connecting to an outlet pipe?~~
6. ~~Sheet 5.3: North scale is blocking pipe label.~~

Please provide a letter addressing all comments on this comment letter and/or state what was modified on the site plan to address said comments.

SITE PLAN SUBMITTAL SCHEDULE:

SUBMITTAL DATE:	July 11, 2022 **(1 PDF of Site plan with Elevation Plan included)**
PLANNING & ZONING:	August 2, 2022 at 5:30
COUNCIL MEETING:	August 23, 2022 at 5:30

Please feel free to contact me at emartin@grimesiowa.gov or at (515) 986-4050 if you have any questions or need additional information.

Sincerely,

Evann Martin

Assistant Planner

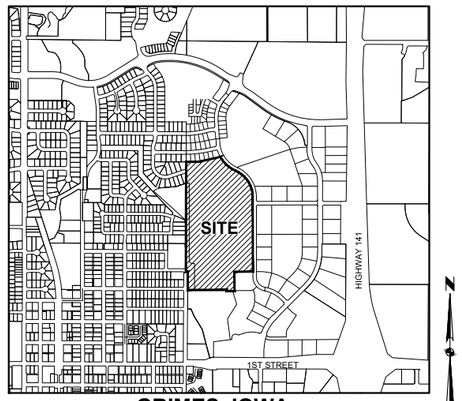
SITE PLAN FOR:

GRIMES PLEX

GRIMES, IOWA

VICINITY MAP

1"=500'



GRIMES, IOWA

OWNER/APPLICANT

CITY OF GRIMES
101 NE HARVEY ST
GRIMES, IA 50111

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: JOSH TRYGSTAD
4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PH. (515) 369-4400
FX. (515) 369-4410

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: MIKE BROONER
4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PH. (515) 369-4400
FX. (515) 369-4410

ELECTRICAL ENGINEER

IMEG CORP.
CONTACT: KRISTEN L. SPINA
2882 106TH STREET
DES MOINES, IOWA 50322
PH. (515) 639-3041
MOBILE (515) 681-5077

REV 1

PROPERTY DESCRIPTION

LOT 14, HOPE COMMERCIAL PLAT 4, IN THE CITY OF GRIMES, POLK COUNTY, IOWA.

1000 NE HERITAGE DRIVE, GRIMES, IA 50111

ZONING

LOT 14
R-4 PLANNED UNIT DEVELOPMENT

DEVELOPMENT SUMMARY

LOT AREA:
LOT 14 =45.50 ACRES (1,982,099 SF)

SETBACKS:
FRONT: 0 FEET
SIDE: 10 FEET
REAR: 25 FEET
BUILDING SEPARATION: 20 FEET

PARKING: 10 FEET FROM PUBLIC STREET
5 FEET FROM PROPERTY LINES

BUILDING HEIGHT THE MAXIMUM HEIGHT OF ANY BUILDING SHALL BE FIVE (5) STORIES ABOVE GRADE, EIGHTY (80-FEET) FEET.

OPEN SPACE
LOT 14 = 1,982,099 SF (45.50 ACRES)
PLAY FIELDS = 1,301,628 SF (29.88 ACRES)
TOTAL NET AREA = 680,471 SF (15.62 ACRES) MINUS PLAY FIELDS

OPEN SPACE REQUIRED: = 136,094 SF (20%)
OPEN SPACE PROVIDED: = 158,199 SF (23%)

PARKING SUMMARY

LOT 14
GRIMES PLEX = 750 SPACES MIN. (PER PUD)

TOTAL REQUIRED: = 750 SPACES
TOTAL PROVIDED: = 1155 SPACES

BENCHMARKS

BURY BOLT ON HYDRANT @ SE CORNER OF HWY 44 & SE GATEWAY DRIVE
ELEVATION=940.44

CITY BENCHMARK G6J-012
CAP BOLT ON HYDRANT @ SW CORNER 5TH ST & NORTH LITTLE BEAVER DR.
ELEVATION=926.02

CITY BENCHMARK G6N-004
CAP BOLT ON FIRE HYDRANT AT THE SOUTHWEST CORNER OF NORTH 4TH STREET AND NORTH LITTLE BEAVER DRIVE
ELEVATION=927.36

INDEX OF SHEETS

NO.	DESCRIPTION
C0.0	COVER SHEET
C1.0-C1.3	QUANTITIES, BID ITEM REFERENCE NOTES, AND GENERAL NOTES
C1.4	DEMOLITION PLAN
C2.0	SHEET LAYOUT
C2.1	STAGING PLAN
C2.2	BID ALTERNATE EXHIBIT
C3.0-C3.6	DIMENSION PLAN
C4.0-C4.10	GRADING PLAN
C4.11-C4.18	EROSION AND SEDIMENT CONTROL PLAN
C5.0-C5.6	UTILITY PLAN
C6.0-C6.7	LANDSCAPE PLAN
C7.0-C7.1	FIELD FENCING PLAN
C8.0-C8.10	DETAILS
E000-E503	ELECTRICAL PLAN

REV 1

FLOOD ZONE CLASSIFICATION

SUBJECT PROPERTY IS LOCATED IN ZONE 'A' AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR THE CITY OF GRIMES, POLK COUNTY, IOWA, COMMUNITY PANEL NUMBER 19153C0160F WITH A REVISION DATE OF FEBRUARY 1, 2019.

NOTE:
FLOODPLAIN PERMIT IS REQUIRED.

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
Know what's below. Call before you dig.

UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

TOPOGRAPHY NOTE

EXISTING TOPOGRAPHIC SURVEY INFORMATION FOR THE SITE WAS TAKEN FROM PREVIOUSLY PREPARED TOPOGRAPHIC SURVEY AND DESIGN INFORMATION FROM CONSTRUCTION PLANS FOR HOPE COMMERCIAL PLAT 1 AND SITE PLAN FOR HOPE COMMERCIAL PLAT 2

GENERAL LEGEND

PROPOSED

PROPERTY BOUNDARY	
PROJECT LIMITS	
GRADING LIMITS	
SECTION LINE	
CENTER LINE	
RIGHT OF WAY	R/W
BUILDING SETBACK	
PERMANENT EASEMENT	P/E
TEMPORARY EASEMENT	T/E
TYPE SW-501 STORM INTAKE	
TYPE SW-502 STORM INTAKE	
TYPE SW-503 STORM INTAKE	
TYPE SW-505 STORM INTAKE	
TYPE SW-506 STORM INTAKE	
TYPE SW-512 STORM INTAKE	ST
TYPE SW-513 STORM INTAKE	ST
TYPE SW-401 STORM MANHOLE	ST
TYPE SW-402 STORM MANHOLE	ST
FLARED END SECTION	
TYPE SW-301 SANITARY MANHOLE	S
STORM/SANITARY CLEANOUT	
WATER VALVE	
FIRE HYDRANT ASSEMBLY	
SIGN	
DETECTABLE WARNING PANEL	
WATER CURB STOP	
SANITARY SEWER	
SANITARY SERVICE	S S S
STORM SEWER	
STORM SERVICE	ST ST
WATERMAIN WITH SIZE	8"W
WATER SERVICE	W W
SAWCUT (FULL DEPTH)	
SILT FENCE	
USE AS CONSTRUCTED	(UAC)
MINIMUM PROTECTION ELEVATION	MPE
TOP OF WALL	TW
FINISH GRADE AT WALL	FGW
FORM GRADE	FG
TOP OF CURB	TC
FINISH GRADE AT HYDRANT	FGH
FIELD LIGHTS (BY OTHERS)	
LIGHT POLES (REFER TO ELEC. PLAN)	

EXISTING

SANITARY MANHOLE	S
WATER VALVE BOX	W
FIRE HYDRANT	
WATER CURB STOP	CS
WELL	WELL
STORM SEWER MANHOLE	ST
STORM SEWER SINGLE INTAKE	
STORM SEWER DOUBLE INTAKE	
FLARED END SECTION	
DECIDUOUS TREE	
CONIFEROUS TREE	
DECIDUOUS SHRUB	
CONIFEROUS SHRUB	
ELECTRIC POWER POLE	
GUY ANCHOR	
STREET LIGHT	
POWER POLE W/ TRANSFORMER	
UTILITY POLE W/ LIGHT	
ELECTRIC BOX	E
ELECTRIC TRANSFORMER	E
ELECTRIC MANHOLE OR VAULT	E
TRAFFIC SIGN	
TELEPHONE JUNCTION BOX	T
TELEPHONE MANHOLE/VAULT	T
TELEPHONE POLE	
GAS VALVE BOX	G
CABLE TV JUNCTION BOX	TV
CABLE TV MANHOLE/VAULT	TV
MAIL BOX	M
BENCHMARK	BM
SOIL BORING	SB
UNDERGROUND TV CABLE	TV
GAS MAIN	G
FIBER OPTIC	FO
UNDERGROUND TELEPHONE	T
OVERHEAD ELECTRIC	OE
UNDERGROUND ELECTRIC	E
FIELD TILE	TILE
SANITARY SEWER W/ SIZE	8"S
STORM SEWER W/ SIZE	15"ST
WATER MAIN W/ SIZE	8"W

THE CONTRACTOR IS REQUIRED TO COORDINATE ALL WORK WITH OTHER CONSTRUCTION PROJECTS IN THE VICINITY. INCLUDING ADJACENT PROPERTY OWNERS PRIVATE CONTRACTORS AND ADDITIONAL BID PACKAGES ASSOCIATED WITH THE GRIMES PLEX PROJECT.

REV 1

REFER TO TERRACON GEOTECHNICAL ENGINEERING REPORT NO. 08215116-01 FOR GEOTECHNICAL REQUIREMENTS.

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2 AND CITY OF GRIMES GRADING PERMIT. THE CONTRACTOR SHALL APPLY FOR THE IOWA NPDES PERMIT #2. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

THE 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

SUBMITTAL DATES

SIGNED ON: 09/13/2022
REVISION #1: 10/11/2022

CONSTRUCTION SCHEDULE

ANTICIPATED START DATE = FALL 2022
ANTICIPATED FINISH DATE = FALL 2023

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE, URBANDALE, IOWA 50322
PH: (515) 369-4400 Fax: (515) 369-4410

PROJECT NO. 2202.086

JOSHUA A. TRYGSTAD
LICENSED PROFESSIONAL ENGINEER
19228
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

JOSHUA A. TRYGSTAD, P.E. — DATE 9/13/2022

LICENSE NUMBER 19228
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS C0.0-C8.10

GRIMES PLEX - 2202.086

FILE: N:\2022\2202086\DWG\SITE PLAN\2202086-COVER NOTES QUANTITIES.DWG
PLOT DATE: 10/7/2022 4:58 PM
PLOTTED BY: ERIC SCHULTE
DISCIPLINE: TECH:
DRAWN BY: ENG

ESTIMATED PROJECT QUANTITIES

ITEM NO.	SUDAS or IDOT No.	ITEM	UNIT	BASE BID	BID ALTERNATE 1	BID ALTERNATE 2	BID ALTERNATE 3	BID ALTERNATE 4	TOTAL
DIVISION 2		EARTHWORK							
2.01	2010-C	CLEARING AND GRUBBING	LS	1					1
2.02	2010-D-1	TOPSOIL, ONSITE	CY	44700					44700
2.03	2010-E	EXCAVATION, CLASS 10 (ON-SITE)	CY	13400					13400
2.04	SPECIAL	BELOW GRADE EXCAVATION (CORE OUT)	CY	500					500
2.05	2010-G	SUBGRADE PREPARATION, 6 IN. DEPTH	SY	27250					27250
2.06	2010-G	SUBGRADE PREPARATION, 12 IN. DEPTH	SY	46664					46664
2.07	2010-I	SUBGRADE TREATMENT, 12 IN. DEPTH	SY	133900					133900
2.08	2010-M	COMPACTION TESTING	LS	1					1
DIVISION 3		TRENCH AND TRENCHLESS CONSTRUCTION							
3.01	3010-F	TRENCH COMPACTION TESTING	LS	1					1
DIVISION 4		SEWERS AND DRAINS							
4.01	4010-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC, 6 IN. DIA.	LF	1603					1603
4.02	4010-I	SANITARY SEWER CLEANOUT	EA	5					5
4.03	4020-A-1	STORM SEWER, TRENCHED, HDPE, 6 IN. DIA.	LF	143					143
4.04	4020-A-1	STORM SEWER, TRENCHED, HDPE, 12 IN. DIA.	LF	244					244
4.05	4020-A-1	STORM SEWER, TRENCHED, HDPE, 18 IN. DIA.	LF	61					61
4.06	4020-A-1	STORM SEWER, TRENCHED, HDPE, 24 IN. DIA.	LF	287					287
4.07	4020-A-1	STORM SEWER, TRENCHED, PERFORATED HDPE, 12 IN. DIA.	LF	1401					1401
4.08	4020-A-1	STORM SEWER, TRENCHED, PERFORATED HDPE, 15 IN. DIA.	LF	3888					3888
4.09	4020-A-1	STORM SEWER, TRENCHED, PERFORATED HDPE, 18 IN. DIA.	LF	357					357
4.10	4020-A-1	STORM SEWER, TRENCHED, PERFORATED HDPE, 24 IN. DIA.	LF	891					891
4.11	4020-A-1	STORM SEWER, TRENCHED, 12 IN. DIA.	LF	163					163
4.12	4020-A-1	STORM SEWER, TRENCHED, 15 IN. DIA.	LF	1070					1070
4.13	4020-A-1	STORM SEWER, TRENCHED, 18 IN. DIA.	LF	601					601
4.14	4020-A-1	STORM SEWER, TRENCHED, 24 IN. DIA.	LF	769					769
4.15	4020-A-1	STORM SEWER, TRENCHED, SLOTTED DRAIN, 12 IN. DIA.	LF	220					220
4.16	4030-B	PIPE APRON, CMP, 24 IN. DIA.	EA	1					1
4.17	4030-D	PIPE APRON GUARD	EA	1					1
4.18	4040-C	SUBDRAIN CLEANOUT, TYPE A-1, 6 IN. DIA.	EA	2					2
DIVISION 5		WATER MAIN AND APPURTENANCES							
5.01	5010-A-1	WATER MAIN, TRENCHED, PVC, 6 IN. DIA.	LF	895					895
5.02	5010-E-1	WATER SERVICE PIPE, TRENCHED, COPPER, 2 IN. DIA.	LF	925					925
5.03	5010-E-3	WATER SERVICE CURB STOP AND BOX, 2 IN. DIA.	EA	5					5
5.04	5020-C	FIRE HYDRANT ASSEMBLY	EA	2					2
5.05	5020-J	FIRE HYDRANT REMOVAL	EA	2					2
DIVISION 6		STRUCTURES FOR SANITARY AND STORM SEWER							
6.01	6010-A	MANHOLE, TYPE SW-301, 48 IN. DIA. (SANITARY SEWER)	EA	7					7
6.02	6010-A	MANHOLE, TYPE SW-401, 48 IN. DIA. (STORM SEWER)	EA	18					18
6.03	6010-A	MANHOLE, TYPE SW-401, 60 IN. DIA. (STORM SEWER)	EA	1					1
6.04	6010-A	MANHOLE, TYPE SW-402, 5 FT. X 5 FT. (STORM SEWER)	EA	1					1
6.05	6010-A	MANHOLE, TYPE SW-403 MODIFIED, 7 FT. X 4 FT. (STORM SEWER)	EA	1					1
6.06	6010-B	INTAKE, TYPE SW-501, SINGLE GRATE INTAKE	EA	8					8
6.07	6010-B	INTAKE, TYPE SW-502, CIRCULAR SINGLE GRATE INTAKE, 48 IN. DIA.	EA	2					2
6.08	6010-B	INTAKE, TYPE SW-502, CIRCULAR SINGLE GRATE INTAKE, 60 IN. DIA.	EA	2					2
6.09	6010-B	INTAKE, TYPE SW-503, SINGLE GRATE INTAKE WITH MANHOLE	EA	2					2
6.10	6010-B	INTAKE, TYPE SW-504, SINGLE GRATE INTAKE WITH FLUSH-TOP MH	EA	1					1
6.11	6010-B	INTAKE, TYPE SW-511, RECTANGULAR AREA INTAKE	EA	7					7
6.12	6010-B	INTAKE, TYPE SW-512, CIRCULAR AREA INTAKE, 24 IN. DIA.	EA	3					3
6.13	6010-B	INTAKE, HDPE INLINE DRAIN, 24 IN. DIA.	EA	4					4
6.14	6010-B	INTAKE, HDPE INTAKE BASIN, 24 IN. DIA.	EA	6					6
6.15	6010-C-2	EXTERNAL DROP CONNECTION	EA	2					2
6.16	6010-E	MANHOLE ADJUSTMENT, MINOR	EA	9					9
6.17	6010-E	INTAKE ADJUSTMENT, MINOR	EA	1					1
6.18	6010-F	MANHOLE ADJUSTMENT, MAJOR	EA	1					1
6.19	6010-F	INTAKE ADJUSTMENT, MAJOR	EA	1					1
6.20	6010-G	CONNECTION TO EXISTING MANHOLE	EA	7					7
6.21	6010-G	CONNECTION TO EXISTING INTAKE	EA	2					2

ESTIMATED PROJECT QUANTITIES

ITEM NO.	SUDAS or IDOT No.	ITEM	UNIT	BASE BID	BID ALTERNATE 1	BID ALTERNATE 2	BID ALTERNATE 3	BID ALTERNATE 4	TOTAL
DIVISION 7		STREETS AND RELATED WORK							
7.01	7010-A	PAVEMENT, PCC, 8 IN.	SY	287					287
7.02	7010-A	PAVEMENT, PCC, 7 IN.	SY	414					414
7.03	7010-A	PAVEMENT, PCC, 6 IN.	SY	43610					43610
7.04	7010-G	CONCRETE MEDIAN	SY	45					45
7.05	7010-I	PCC PAVEMENT SAMPLES AND TESTING	LS	1					1
7.06	7030-B	REMOVAL OF CURB	LF	240					240
7.07	7030-C	SHARED USE PATH, PCC, 5 IN. WITH WELDED WIRE REINFORCEMENT (PLAZA)	SY		26500				26500
7.08	7030-C	SHARED USE PATH, PCC, 6 IN. (TRAIL)	SY	265					265
7.09	7030-E	SIDEWALK, PCC, 4 IN.	SY	500					500
7.10	7030-E	SIDEWALK, PCC, 5 IN. (CLASS A)	SY	2100					2100
7.11	7030-E	SIDEWALK, PCC, 6 IN. (RAMPS)	SY	270					270
7.12	7030-G	DETECTABLE WARNING	SF	325					325
7.13	7040-H	PAVEMENT REMOVAL	SY	40					40
DIVISION 8		TRAFFIC CONTROL AND SIGNALIZATION							
8.01	8020-B	PAINTED PAVEMENT MARKINGS, SOLVENT/WATERBORNE	STA	268.5					268.5
8.02	8020-G	PAINTED SYMBOLS AND LEGENDS	EA	31					31
8.03	8030-A	TEMPORARY TRAFFIC CONTROL	LS	1					1
8.04	SPECIAL	TEMPORARY PEDESTRIAN TRAFFIC CONTROL	LS	1					1
8.05	SPECIAL	TRAFFIC SIGNAGE	EA	40					40
8.06	SPECIAL	BOLLARDS	EA	145					145
DIVISION 9		SITE WORK AND LANDSCAPING							
9.01	9010-A	CONVENTIONAL SEEDING, SEEDING, FERTILIZING, TYPE 1	AC	1.3					1.3
9.02	9010-A	CONVENTIONAL SEEDING, SEEDING, FERTILIZING, TYPE 3	AC	4.7					4.7
9.03	9010-A	CONVENTIONAL SEEDING, SEEDING, FERTILIZING TYPE 4 (TEMP SEED)	AC	52.7					52.7
9.04	9010-B	HYDRAULIC MULCHING (BFM)	AC	6.0					6.0
9.05	9020-A	SOD	SQ	1082					1082
9.06	SPECIAL	4 IN. METAL EDGE, LANDSCAPE BEDS	LF	1302					1302
9.07	SPECIAL	WOOD MULCH, LANDSCAPE BEDS	SF	11962					11962
9.08	9030-A	PLANTS, EVERGREEN TREES	EA	148					148
9.09	9030-A	PLANTS, ORNAMENTAL TREES	EA	57					57
9.10	9030-A	PLANTS, OVERSTORY TREES	EA	103					103
9.11	9030-A	PLANTS, SHRUBS	EA	92					92
9.12	9040-A-2	SWPPP MANAGEMENT	LS	1					1
9.13	9040-D-1	FILTER SOCKS, 12 IN.	LF	2410					2410
9.14	9040-D-2	FILTER SOCKS, REMOVAL	LF	2410					2410
9.15	9040-J	RIP RAP, CLASS E	TON	15					15
9.16	9040-N-1	SILT FENCE	LF	8415					8415
9.17	9040-N-3	SILT FENCE, REMOVAL OF DEVICE	LF	8415					8415
9.18	9040-O-1	STABILIZED CONSTRUCTION ENTRANCE	SY	800					800
9.19	9040-Q-2	EROSION CONTROL MULCHING, STRAW	AC	52.7					52.7
9.20	9040-T-1	INLET PROTECTION DEVICE, DROP-IN	EA	44					44
9.21	9040-T-2	INLET PROTECTION DEVICE, MAINTENANCE	EA	44					44
9.22	9060-A	CHAIN LINK FENCE, BLACK VINYL, 6 FT. TALL	LF		12920				12920
9.23	9060-A	CHAIN LINK FENCE, BLACK VINYL, 8 FT. TALL	LF		1200				1200
9.24	9060-A	CHAIN LINK FENCE, BLACK VINYL, 10 FT. TALL	LF		1455				1455
9.25	9060-B	GATES, SWINGING, 6 FT. TALL X 12 FT. WIDE	EA		12				12
9.26	9060-B	GATES, SWINGING, 6 FT. TALL X 10 FT. WIDE	EA		2				2
9.27	9060-B	GATES, SWINGING, 8 FT. TALL X 4 FT. WIDE	EA		36				36
9.28	SPECIAL	TIE-BACK TENSION NETTING, 30 FT. TALL	EA		12				12
9.29	SPECIAL	TIE-BACK TENSION NETTING, 40 FT. TALL	EA		6				6
9.30	SPECIAL	BALL CONTROL NETTING, BRAIDED AND KNOTLESS, 14 FT. TALL	LF		3155				3155
9.31	SPECIAL	CONSTRUCTED DUGOUT ROOF, 8 FT. X 30 FT.	EA		24				24
9.32	SPECIAL	CONSTRUCTED DUGOUT ROOF, 8 FT. X 40 FT.	EA		12				12
9.33	9071-A	RETAINING WALL	SF	1525					1525
9.34	SPECIAL	SYNTHETIC TURF	SF			1184016			1184016
DIVISION 11		MISCELLANEOUS							
11.01	11,020-A	MOBILIZATION	LS	1					1
11.02	11,050-A	CONCRETE WASHOUT	EA	2					2
11.03	SPECIAL	BASE BID ELECTRICAL	LS	1					1
11.04	SPECIAL	BID ALTERNATE 1 ELECTRICAL	LS		1				1
11.05	SPECIAL	BID ALTERNATE 3 ELECTRICAL	LS				1		1
11.06	SPECIAL	BID ALTERNATE 4 ELECTRICAL	LS					1	1

REV

REV

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-COVER NOTES QUANTITIES.DWG
FILE DATE: 10/11/22
PLOTTED BY: ERIC SCHULTE
DATE PLOTTED: 10/11/2022 9:34 PM
COMMENT:
DWG:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE | POLK COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE ESTIMATED PROJECT QUANTITIES | SHEET NUMBER C1.0

ESTIMATE REFERENCE INFORMATION

Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.

ITEM NO.	DESCRIPTION
	THE 2022 EDITION OF SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTAL SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS OTHERWISE NOTED. ALL REFERENCES TO SECTIONS AND FIGURES ARE TO THE SUDAS STANDARD SPECIFICATIONS.
2.01	CLEAR AND GRUB ALL AREAS AFFECTED BY GRADING OPERATIONS. THE CONTRACTOR SHALL FIELD VERIFY CLEARING AND GRUBBING NEEDED PRIOR TO BIDDING. INCLUDES REMOVAL OF ANY EXISTING FIELD FENCE. ALL MATERIAL THAT IS REMOVED FROM THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR. DO NOT DISTURB CROPS, TREES, AND JURISDICTIONAL WETLANDS OUTSIDE THE PROJECT/GRADING LIMITS.
2.02	STRIP, SALVAGE AND RESPREAD TOPSOIL. CONTRACTOR SHALL STRIP 6" TO 8" OF TOPSOIL. PLAN QUANTITY ASSUMED 7" TOPSOIL STRIP. CONTRACTOR SHALL MAXIMIZE TOPSOIL RESPREAD DEPTHS IN GRASS LOCATIONS. TOPSOIL TO BE RESPREAD SHALL BE FREE OF ROCK AND DEBRIS AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF TOPSOIL STOCKPILE PLACEMENT WITH THE CITY. ASSUMED 25% SHRINK FACTOR. TOPSOIL EXPORT SHALL BE INCIDENTAL TO THIS BID ITEM. NO PAYMENT FOR OVERHAUL SHALL BE ALLOWED.
2.03	REFER TO TERRACON GEOTECHNICAL ENGINEERING REPORT NO. 08215116-01 FOR GEOTECHNICAL REQUIREMENTS EXCAVATION INCLUDES ALL WORK NECESSARY TO ACHIEVE PROPER GRADES AS SHOWN IN THE PLANS. NO MEASUREMENT OR PAYMENT FOR ON-SITE BORROW OR BORROW OVERHAUL SHALL BE MADE. CUT (ONSITE BORROW) 13,400 CY FILL + 25% SHRINK 12,800 CY 600 CY (WASTE) REV 4 EARTHWORK ANALYSIS ASSUMPTIONS: ASSUMED EXISTING SURFACE WAS LEFT LOW BY PREVIOUS GRADING CONTRACTOR WHICH IS ULTIMATELY THE TOP OF THE SUBGRADE PREPARATION. **EXISTING SURFACE SHOWN IN THE PLANS IS TOP OF SURFACE FROM PREVIOUS DESIGN** ~~ASSUMPTIONS.~~ **THE CONTRACTOR SHALL VERIFY EXISTING SITE GRADES AND ELEVATIONS.** CONTRACTOR SHALL PROVIDE SUITABLE SOILS FOR ALL FURNISHED MATERIAL. CONTRACTOR SHALL PROVIDE SAMPLING, TESTING AND A PROPOSED BORROW REPORT. NEWLY PLACED FILL ON THE EXISTING SLOPES SHALL BE ADEQUATELY BENCHED AND/OR DISKED IN ORDER TO INTEGRATE THE NEW EMBANKMENT WITH THE EXISTING TERRAIN. MEASUREMENT FOR EXCAVATION OF CLASS 10 MATERIAL SHALL BE PLAN QUANTITY WITHOUT FIELD MEASUREMENT. ADJUSTMENTS TO PLAN QUANTITY SHALL BE MADE ONLY IN THE EVENT OF PLAN REVISIONS. ANY DEWATERING SHALL BE CONSIDERED INCIDENTAL.
2.04	BELOW GRADE EXCAVATION SHALL BE FOR REMOVING AND REPLACING AREAS OF UNSUITABLE SUBGRADE AS IDENTIFIED BY THE GEOTECHNICAL ENGINEER AND THE CITY DURING GRADING OPERATIONS. SUITABLE BACKFILL MATERIAL IS INCIDENTAL AND SHALL MEET THE REQUIREMENTS OF SECTION 2010 2.04A – SELECT SUBGRADE MATERIALS.
2.05–2.06	REFER TO DETAILS ON SHEET C8.0 FOR TYPICAL SECTION DETAILS FOR TYPICAL LOCATIONS AND THICKNESS.
2.07	REFER TO GEOTECHNICAL REPORT FOR RECOMMENDATIONS AND SPECIFICATIONS. INTENDED TREATMENT AREAS SHALL BE WHERE SYNTHETIC TURF INSTALLATION IS REQUIRED (POD #1–POD#6). ASSUMED 5% PORTLAND CEMENT. PLAN QUANTITY ASSUMES 2 FT. OFFSET FROM TURF AREAS.
2.08&3.01	COMPACTION TESTING SHALL MEET THE REQUIREMENTS OF SECTION 2010, PART 3.09, AND SECTION 3010, PART 3.06, INCLUDING ALL GEOTECHNICAL RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT. COMPACTION TESTING SHALL BE PERFORMED ON SUBGRADE PREPARATION. TRENCH COMPACTION TESTING SHALL BE PERFORMED ON ALL STORM SEWER, WATER MAIN, AND SANITARY PIPE. CONTRACTOR SHALL PROVIDE TEST RESULTS TO ENGINEER AND CITY WITHIN 24 HOURS OF RECEIVING THEM.
4.01	REFER TO FIG. 3010.101 ALSO SHOWN ON C8.0 DETAIL 2 – TRENCH BEDDING AND BACKFILL ZONES AND FIG. 3010.103 ALSO SHOWN ON C8.0 DETAIL 5 – FLEXIBLE GRAVITY PIPE TRENCH BEDDING FOR CONSTRUCTION DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. SANITARY SEWER SHALL BE SOLID WALL PVC OR TRUSS PIPE. TELEVISE SANITARY SEWER PRIOR TO PAVING AND PROVIDE TELEVISING REPORT TO THE CITY IN HARD COPY AND ELECTRONIC FORMAT. TELEVISING SHALL BE CONSIDERED INCIDENTAL. CONNECTION TO EXISTING SANITARY SEWER SHALL BE CONSIDERED INCIDENTAL. DEWATERING AND TRENCH SHORING SHALL BE CONSIDERED INCIDENTAL. MANDREL AND PRESSURE TESTING REQUIRED FOR SEWER. THE CONTRACTOR SHALL HAVE APPROVED FLOODPLAIN PERMIT "IN-HAND" PRIOR TO INSTALLING SERVICE LINE P-4, SEE SHEET C5.4 FOR LOCATION. THE CONTRACTOR SHALL COORDINATE WITH THE CITY ON RECIEVING THE FLOODPLAIN PERMIT.
4.02	REFER TO FIG. 4010.203 ALSO SHOWN ON C8.1 DETAIL 3 – SANITARY SEWER CLEANOUT FOR CONSTRUCTION DETAILS.
4.03–4.10	REFER TO FIG. 3010.101 ALSO SHOWN ON C8.0 DETAIL 2 – TRENCH BEDDING AND BACKFILL ZONES AND FIG. 3010.103 ALSO SHOWN ON C8.0 DETAIL 5 – FLEXIBLE GRAVITY PIPE TRENCH BEDDING FOR BEDDING AND BACKFILL DETAILS. GRANULAR PIPE BEDDING MATERIAL AND GRANULAR BACKFILL FOR PERFORATED PIPE SHALL BE CONSIDERED INCIDENTAL. HDPE SHALL BE DUAL WALL OR EQUAL. PIPE LENGTHS SHOWN IN PLANS INCLUDES APRON. SPORTFIELD DRAINAGE PIPE CONNCETIONS SHALL BE CONSIDERED INCIDENTAL.
4.11–4.14	REFER TO FIG. 3010.101 ALSO SHOWN ON C8.0 DETAIL 2 – TRENCH BEDDING AND BACKFILL ZONES AND FIG. 3010.103 ALSO SHOWN ON C8.0 DETAIL 5 – FLEXIBLE GRAVITY PIPE TRENCH BEDDING FOR BEDDING AND BACKFILL DETAILS. 3010.102 ALSO SHOWN ON C8.0 DETAIL 6 – RIGID GRAVITY PIPE TRENCH BEDDING FOR BEDDING AND BACKFILL DETAILS. GRANULAR PIPE BEDDING MATERIAL AND PLACEMENT SHALL BE CONSIDERED INCIDENTAL. ALL DEWATERING, EXCAVATION AND BACKFILL REQUIRED FOR THE CONSTRUCTION OF THE STORM SEWER SHALL BE CONSIDERED INCIDENTAL. WRAP RCP STORM SEWER PIPE JOINTS IN ENGINEERING FABRIC. PIPE LENGTH SHOWN IN PLANS INCLUDES APRON. THE CONTRACTOR SHALL PROVIDE THE VIDEO INSPECTION RESULTS TO THE ENGINEER WITHIN 24 HOURS OF RECEIPT FROM THE TESTING COMPANY. PAVING OPERATIONS SHALL NOT PROCEED UNTIL THE VIDEO INSPECTION HAS BEEN REVIEWED AND APPROVED BY THE ENGINEER AND ANY NECESSARY REPAIRS HAVE BEEN PERFORMED BY THE CONTRACTOR, HOWEVER, SUBBASE INSTALLATION MAY PROCEED WHILE THE VIDEO INSPECTION IS REVIEWED AND APPROVED.
4.15	GRATES SHALL BE ADA APPROVED (HEEL GUARD OR APPROVED EQUAL). REFER TO MANUFACTURERS SPECIFICATIONS FOR INSTALLATIONS AND CONSTRUCTION DETAILS. CONTRACTOR SHALL COORDINATE INSTALLATION WITH BUILDING CONSTRUCTION. (OUTLET CONNECTIONS SHALL BE CONSIDERED INCIDENTAL.) REV 4
4.16–4.17	REFER TO SHEET C8.0 DETAIL 4 FOR FOOTING DETAIL & REFER TO FIG. 4030.225 ALSO SHOWN ON C8.0 DETAIL 1 – METAL PIPE APRONS AND APRON GUARDS FOR CONSTRUCTION DETAILS.
4.18	REFER TO FIG. 4040.232 ALSO SHOWN ON C8.1 DETAIL 4 – SUBDRAIN CLEANOUTS FOR CONSTRUCTION DETAILS.
5.01	REFER TO FIG. 3010.101 ALSO SHOWN ON C8.0 DETAIL 2 – TRENCH BEDDING AND BACKFILL ZONES AND FIG. 3010.104 ALSO SHOWN ON C8.0 DETAIL 3 – PRESSURE PIPE TRENCH BEDDING FOR BEDDING AND BACKFILL DETAILS. GRANULAR PIPE BEDDING MATERIAL SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG 5010.101 ALSO SHOWN ON C8.1 DETAIL 1 FOR THRUST BLOCK DETAILS. REFER TO FIG. 5010.102 ALSO SHOWN ON C8.1 DETAIL 2 FOR TRACER WIRE DETAILS. CONNECTIONS TO EXISTING WATER MAIN, ALL FITTINGS, PIPE BEDDING MATERIAL, POLYETHYLENE ENCASEMENT, THRUST BLOCKS, AND TRACER WIRE SYSTEM SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL INSTALL BENDS AND DEFLECT PIPE JOINTS PER SECTION 5010, PART 3.01, A.6 AS NECESSARY TO INSTALL HYDRANT ASSEMBLIES AT THEIR SPECIFIED LOCATION

ESTIMATE REFERENCE INFORMATION

Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.

ITEM NO.	DESCRIPTION
5.02	REFER TO SHEETS C5.1 & C5.5 FOR LOCATIONS. CONTRACTOR SHALL VERIFY LOCATIONS WITH ARCHITECTURAL PLANS PRIOR TO INSTALLATION.
5.03	CURB STOPS SHALL COMPLY WITH THE CITY OF GRIMES SUPPLEMENTAL SPECIFICATIONS.
5.04	REFER TO FIG. 5020.201 ALSO SHOWN ON C8.1 DETAIL 5 – FIRE HYDRANT DETAIL FOR FIRE HYDRANT CONSTRUCTION DETAILS. INCLUDES ANCHORING TEE, ANCHORING ELBOW, GATE VALVE, VALVE BOX, ANCHORING PIPE, ANCHORING COUPLING, ELBOWS, TRACER WIRE STATION, AND FIRE HYDRANT.
5.05	REMOVALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
6.01	REFER TO FIG. 6010.301 FOR SW-301 ALSO SHOWN ON C8.2 DETAIL 1 – SANITARY SEWER MANHOLE. REFER TO FIG. 6010.601 ALSO SHOWN ON C8.2 DETAIL 3 – CASTINGS FOR SANITARY SEWER MANHOLES FOR CASTING DETAILS. LIDS THAT ARE LOCATED WITHIN SIDEWALK/ SHARED USE PATHS SHALL BE ADA APPROVED & THREE-PIECE FLOATING CASTINGS, SUCH AS NEENAH R-1673-B SHOWN ON C8.2 DETAIL 2 OR APPROVED EQUAL CASTINGS SHALL BE BOXED OUT PER FIGURE 7010.103, SECTION A-A AS SHOWN ON SHEET C8.4 DETAIL 2. TYPE A CASTINGS WITH TYPE I/I TOP HAT BARRIERS ARE REQUIRED FOR ALL MANHOLES OUTSIDE OF PAVEMENT AND TYPE B CASTINGS ARE REQUIRED FOR ALL MANHOLES WITHIN BOTH PROPOSED PUBLIC AND PRIVATE PAVEMENT. A MAXIMUM OF 12" OF ADJUSTMENT RINGS ARE ALLOWED FOR NEW CONSTRUCTION. MANHOLE CHIMNEY'S TO BE SEALED WITH HEAT SHRINK SLEEVES.
6.02–6.03	REFER TO FIG. 6010.401 ALSO SHOWN ON C8.3 DETAIL 1 – CIRCULAR STORM SEWER MANHOLE FOR CONSTRUCTION DETAILS. REFER TO UTILITY PLAN FOR CASTING TYPES. CASTINGS THAT ARE LOCATED WITHIN SIDEWALK/ SHARED USE PATHS SHALL BE ADA APPROVED & 3-PIECE FLOATING, SUCH AS NEENAH R-1673-B SHOWN ON C8.2 DETAIL 2 OR APPROVED EQUAL. CASTINGS SHALL BE BOXED OUT PER FIGURE 7010.103 SECTION A-A AS SHOWN ON SHEET C8.4 DETAIL 2. CASTINGS SHALL BE CONSIDERED INCIDENTAL.
6.04	REFER TO FIG. 6010.402 ALSO SHOWN ON C8.3 DETAIL 2 – RECTANGULAR STORM SEWER MANHOLE FOR CONSTRUCTION DETAILS. RIM ELEVATION IS INTENDED TO BE BURIED BELOW SYNTHETIC TURF. REFER TO SHEET C5.4 FOR LOCATION.
6.05	REFER TO FIG. 6010.403 ALSO SHOWN ON C8.3 DETAIL 4 – DEEP WELL RECTANGULAR STORM SEWER MANHOLE FOR CONSTRUCTION DETAILS. CASTING SHALL BE TYPE R AND CONSIDERED INCIDENTAL. REFER TO SHEET C5.5 FOR LOCATION
6.06	REFER TO FIG. 6010.501 ALSO SHOWN ON C8.3 DETAIL 3 – SINGLE GRATE INTAKE FOR CONSTRUCTION DETAILS.
6.07–6.08	REFER TO FIG. 6010.502 ALSO SHOWN ON C8.4 DETAIL 6 AND C8.4 DETAIL 4 – CIRCULAR SINGLE GRATE INTAKE FOR CONSTRUCTION DETAILS. REFER TO UTILITY PLANS FOR CASTING TYPES.
6.09	REFER TO FIG. 6010.503 ALSO SHOWN ON C8.3 DETAIL 5 – SINGLE GRATE INTAKE WITH MANHOLE FOR CONSTRUCTION DETAILS.
6.10	REFER TO FIG. 6010.504 ALSO SHOWN ON C8.3 DETAIL 6 – SINGLE GRATE INTAKE WITH FLUSH-TO MANHOLE FOR CONSTRUCTION DETAILS.
6.11	REFER TO FIG. 6010.511 ALSO SHOWN ON C8.4 DETAIL 1 – RECTANGULAR AREA INTAKE FOR CONSTRUCTION DETAILS.
6.12	REFER TO FIG. 6010.512 ALSO SHOWN ON C8.4 DETAIL 3 – CIRCULAR AREA INTAKE FOR CONSTRUCTION DETAILS.
6.13–6.14	REFER TO DETAIL SHOWN ON C8.4 DETAIL 6 AND MANUFACTURER DRAWINGS FOR SPECIFICATIONS AND CONSTRUCTION DETAILS.
6.15	REFER TO FIG. 6010.307 ALSO SHOWN ON C8.4 DETAIL 5 – EXTERNAL DROP CONNECTION FOR SANITARY SEWER MANHOLE. REFER TO SHEETS C5.2 AND C5.4 FOR LOCATIONS. DEWATERING, TRENCH SHORING, AND CONNECTION TO EXISTING STRUCTURES SHALL BE CONSIDERED INCIDENTAL. THE CONTRACTOR SHALL HAVE APPROVED FLOODPLAIN PERMIT AND JOINT APPLICATION "IN-HAND" PRIOR TO INSTALLING SERVICE LINE P-4, SEE SHEET C5.4 FOR LOCATION. CDA WILL PROVIDE THE CONTRACTOR WITH THE PERMITS WHEN APPLICATIONS ARE APPROVED BY THE IOWA DNR & ARMY CORP OF ENGINEERS.
6.16–6.17	CASTINGS AND ADJUSTING RINGS SHALL BE CONSIDERED INCIDENTAL REFER TO 6010.601 ALSO SHOWN ON C8.2 DETAIL 3 – CASTINGS FOR SANITARY SEWER MANHOLES FOR CASTING DETAILS. REFER TO FIG. 6010.602 ALSO SHOWN ON C8.2 DETAIL 4 – CASTINGS FOR STORM SEWER MANHOLES. A MAXIMUM OF 12" OF ADJUSTMENT RINGS ARE ALLOWED FOR NEW CONSTRUCTION. MANHOLE CHIMNEY'S TO BE SEALED WITH HEAT SHRINK SLEEVES. CASTINGS LOCATED WITHIN THE PAVEMENT SHALL BE THREE-PIECE FLOATING CASTINGS. LIDS THAT ARE LOCATED WITHIN SIDEWALK/ SHARED USE PATHS SHALL BE ADA APPROVED, SUCH AS NEENAH R-1673-B AS SHOWN ON SHEET C8.2 DETAIL #2 OR APPROVED EQUAL. REMOVALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
6.18–6.19	MANHOLE CASTINGS LOCATED WITHIN THE PAVEMENT SHALL BE THREE-PIECE FLOATING CASTINGS. LIDS THAT ARE LOCATED WITHIN SIDEWALK/ SHARED USE PATHS SHALL BE ADA APPROVED, SUCH AS NEENAH R-1673-B AS SHOWN ON SHEET C8.2 DETAIL #2 OR APPROVED EQUAL. REMOVALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
6.20–6.21	REFER TO UTILITY PLAN FOR LOCATIONS.
7.01–7.03	CLASS C MIX, CLASS 3 DURABILITY AGGREGATE FOR PCC PAVEMENT. ACCOMMODATIONS FOR COLD WEATHER PAVING SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG. 7010.101 ALSO SHOWN ON C8.5 DETAIL 1 – JOINTS (TRANSVERSE CONTRACTION AND LONGITUDINAL CONTRACTION) FOR JOINT DETAILS. INSTALL HANDICAP CURBS AT LOCATIONS OF ALL FUTURE SIDEWALKS. REFER TO INTERSECTION SHEETS FOR JOINTING. TYPICAL C & CD JOINT SPACING IS 15 FEET. PAVING OPERATIONS SHALL NOT PROCEED UNTIL THE VIDEO INSPECTION OF SEWERS HAS BEEN REVIEWED AND APPROVED BY THE ENGINEER AND ANY NECESSARY REPAIRS HAVE BEEN PERFORMED BY THE CONTRACTOR, MULTIPLE MOBILIZATIONS TO VIDEO SEWER SHALL BE CONSIDERED INCIDENTAL.
7.04	REFER TO SHEET C8.7 DETAIL 2 FOR CONSTRUCTION DETAILS.
7.05	REFER TO SECTION 7010, 3.07 – QUALITY CONTROL FOR MATERIAL AND CONSTRUCTION ITEM ACCEPTANCE SAMPLING AND TESTING REQUIREMENTS. THE CONTRACTOR WILL BE REQUIRED TO PERFORM ALL PCC PAVEMENT TESTING. COORDINATE WITH ENGINEER PRIOR TO TESTING. CONCRETE AIR AND SLUMP TESTING AND CONCRETE STRENGTH TESTING VIA CYLINDER BREAKS ARE INCLUDED IN THIS BID ITEM.
7.06	REFER TO DEMOLITION PLAN FOR LOCATIONS.
7.07	REFER TO DIMENSION PLAN FOR LOCATIONS & C1.3 FOR PAVEMENT LEGEND. WELDED WIRE REINFORCEMENT SHALL BE 6"x6" – W2.9xW2.9 WITH 6" MINIMUM OVERLAP. REFER TO DETAILS 8 AND 9 ON SHEET C8.6. WELDED WIRE REINFORCEMENT SHALL BE CONSIDERED INCIDENTAL. REFER TO DETAIL 9 ON SHEET C8.6. THICKENED EDGE, & REBAR SHALL BE CONSIDERED INCIDENTAL.
7.08	REFER TO SHEET C3.5 FOR LOCATION.
7.09	INTENDED LOCATION SHALL BE SIDEWALK LOCATED WITHIN NE HERITAGE DRIVE RIGHT-OF-WAY CORRIDOR, EXCLUDING SIDEWALK RAMPS AND TURNING SPACES.
7.10	REFER TO DETAILS 2 AND 3 ON SHEET C8.6 FOR CONSTRUCTION DETAILS.

ESTIMATE REFERENCE INFORMATION

Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.

ITEM NO.	DESCRIPTION
7.11	REFER TO FIG. 7030.204 ALSO SHOWN ON C8.6 DETAIL 1 – GENERAL FEATURES OF AN ACCESSIBLE SIDEWALK, FIG. 7030.205 ALSO SHOWN ON C8.6 DETAIL 2 AND 3 – GENERAL SIDEWALK AND CURB RAMP DETAILS AND FIG. 7030.207 ALSO SHOWN ON C8.7 DETAIL 1 – CURB RAMP FOR CLASS B OR C SIDEWALK FOR SIDEWALK CURB RAMP CONSTRUCTION DETAILS. ACCESSIBLE RAMPS SHALL BE 6" THICK P.C.C. AND CROSS SLOPES SHALL NOT EXCEED 2.0%. ALL SIDEWALK RAMPS SHALL BE 6" PCC. MINOR GRADING ADJACENT TO CURB RAMPS AND SIDEWALKS SHALL BE CONSIDERED INCIDENTAL.
7.12	DETECTABLE WARNING PANELS ARE TO BE NATURALLY COLORED. ALL PANELS SHALL BE CAST IRON DOME PANELS. RADIAL PANELS SHALL BE CONSIDERED INCIDENTAL.
7.13	REFER TO DEMOLITION PLAN FOR PAVEMENT REMOVALS. FULL DEPTH SAW CUTTING SHALL BE CONSIDERED INCIDENTAL. ALL PAVEMENT REMOVED FROM THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.
8.01	REFER TO IDOT STD. RD. PLAN PM-110 – LINE TYPES FOR CONSTRUCTION DETAILS. PAINTED PAVEMENT MARKINGS SHALL BE SOLVENT/WATERBORNE BASED ON AIR & PAVEMENT TEMPERATURES. REFER TO DIMENSION PLAN FOR MARKINGS AND SYMBOLS. QUANTITY DOES NOT INCLUDE SPORT FIELD PAINT. QUANTITY: PAVEMENT MARKING TYPE / PAY FACTOR / LENGTH, LF / QUANTITY, LF CHY8 – CHANNELIZING LINE / 2 / 965 / 1930 DCY4 – DOUBLE CENTERLINE / 2 / 175 / 350 SLW4 – SOLID LANE LINE / 1 / 24200 / 24200 SLW2 – STOP LINE / 6 / 62 / 372 TOTAL / / / 26852
8.02	PAINTED PAVEMENT SYMBOLS AND LEGENDS SHALL BE SOLVENT/WATERBORNE BASED ON AIR & PAVEMENT TEMPERATURES. PARKING QUANTITY: PAVEMENT SYMBOL TYPE / QUANTITY, EA WCSW – WHEELCHAIR SYMBOL / 28 LTAW – LEFT TURN ARROW / 03 TOTAL / 31
8.03–8.04	ALL TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED FOR CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREET AND HIGHWAYS. ALL TRAFFIC CONTROL DEVICES REQUIRED SHALL BE CONSIDERED INCIDENTAL. WHEN A POD BECOMES OPERATIONAL AFTER SUBSTANTIAL COMPLETION, THE CONTRACTOR SHALL INSTALL TEMPORARY TRAFFIC CONTROL DEVICES & SAFETY FENCE DURING & AFTER CONSTRUCTION ACTIVITIES. MULTIPLE MOBILIZATIONS SHALL BE CONSIDERED INCIDENTAL.
8.05	REFER TO DIMENSION PLAN FOR LOCATIONS. MOUNTING POSTS & FOOTINGS SHALL BE CONSIDERED INCIDENTAL. REV 4
8.06	REFER TO DETAILS 5 AND 8 ON SHEET C8.7 FOR CONSTRUCTION DETAILS. REFER TO DIMENSION PLAN FOR LOCATIONS. REMOVABLE BOLLARDS SHALL BE CONSIDERED INCIDENTAL. INTENDED LOCATIONS SHALL BE NEAR THE "DROP-OFF" AREAS.
9.01–9.03	REFER TO LANDSCAPE SHEETS FOR LOCATIONS, SEEDING, AND C1.3 FOR PLANTING NOTES. ALL SEEDING TO OCCUR AS SOON AS RESPREAD OF TOPSOIL CAN OCCUR WITHIN ALLOWED SEEDING DATES. MULTIPLE SEEDING MOBILIZATIONS SHALL BE ANTICIPATED. MOBILIZATIONS SHALL BE CONSIDERED INCIDENTAL.
9.04	HYDROMULCH SHALL BE APPLIED AT A RATE OF 3000 LBS/ACRE DRY WEIGHT.
9.05	REFER TO LANDSCAPE SHEETS FOR LOCATIONS, SEEDING, AND C1.3 FOR PLANTING NOTES. WATERING SHALL BE INCIDENTAL. CONTRACTOR SHALL COORDINATE WITH THE CITY ON WATERING CONNECTION AND METERING.
9.06	STANDARD COMMERCIAL-STEEL EDGING (1/8" THICK BY 4" DEEP). MANUFACTURER'S STANDARD PAINT FINISH (BLACK). FABRICATED IN SECTIONS OF STANDARD LENGTHS, WITH LOOPS STAMPED FROM OR WELDED TO FACE OF SECTIONS TO RECEIVE STAKES. STEEL EDGING SHALL BE LOCATED WHERE INDICATED ON THE DRAWINGS AND ANCHORED WITH STAKES APPROXIMATELY 30" APART, DRIVEN BELOW ELEVATION OF EDGING. CONTRACTOR TO PROVIDE SUBMITTAL FOR REVIEW AND APPROVAL.
9.07	CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD MULCH AROUND ALL TREES, SHRUBS AND IN ALL PLANTING BEDS TO A (MIN) DEPTH OF 3".
9.08–9.11	REFER TO LANDSCAPE SHEETS FOR LOCATIONS, AND SHEET C1.3 FOR PLANTING NOTES.
9.12	ALL WORK REQUIRED TO COMPLY WITH THE ADMINISTRATIVE PROVISIONS OF THE GENERAL PERMIT NO. 2; INCLUDING RECORD KEEPING, DOCUMENTATION, UPDATING THE SWPPP, FILING THE NOTICE OF DISCONTINUATION, ETC. ITEM ALSO INCLUDES WEEKLY INSPECTIONS REQUIRED TO SATISFY THE PROVISIONS OF GENERAL PERMIT NO. 2. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. CONTRACTOR WILL BE PROVIDED A COPY OF THE SWPPP BOOKLET PREPARED BY ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING FOR THE NPDES GENERAL PERMIT NO. 2.
9.13	REFER TO FIG. 9040.102 ALSO SHOWN ON C8.8 DETAIL 3 – FILTER BERM AND FILTER SOCK FOR CONSTRUCTION DETAILS.
9.14	THE REMOVAL OF ACCUMULATED SEDIMENT SHALL BE CONSIDERED INCIDENTAL. ALL MATERIALS REMOVED SHALL BECOME PROPERTY OF THE CONTRACTOR.
9.15	REFER TO FIG. 9040.110 ALSO SHOWN ON C8.7 DETAIL 3 – RIP RAP FOR PIPE OUTLET ONTO FLAT GROUND AND FIG. 9040.111 ALSO SHOWN ON C8.7 DETAIL 7 – RIP RAP APRON FOR PIPE OUTLET INTO CHANNEL FOR CONSTRUCTION DETAILS. THICKNESS (T) EQUALS 18 INCHES. INSTALL ENGINEERING FABRIC UNDER ALL RIP RAP. ENGINEERING FABRIC SHALL BE CONSIDERED INCIDENTAL. INCLUDES MATERIAL REQUIRED FOR THE INSTALLATION OF CHECK DAMS.
9.16	REFER TO FIG. 9040.119 ALSO SHOWN ON C8.8 DETAIL 5 – SILT FENCE OR SILT FENCE INSTALLATION DETAILS. MOBILIZATION FOR THE INSTALLATION SHALL BE CONSIDERED INCIDENTAL.
9.17	REMOVE INSTALLED SILT FENCE PRIOR TO FINAL SEEDING. ALL SILT FENCE SHALL BE CLEANED OUT AND MAINTAINED AS SPECIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND SHALL BE INCLUDED WITHIN THIS BID ITEM. MOBILIZATION AND MATERIAL REMOVED SHALL BE CONSIDERED INCIDENTAL AND MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
9.18	REFER TO FIG. 9040.120 ALSO SHOWN ON C8.8 DETAIL 2 STABILIZED CONSTRUCTION ENTRANCE FOR CONSTRUCTION DETAILS. REFER TO EROSION AND SEDIMENT CONTROL PLAN SHEET C4.10 FOR LOCATION.

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-COVER NOTES QUANTITIES.DWG
DATE PLOTTED: 10/17/2022 8:18 PM
PLOT DATE: 10/17/22
PLOTTED BY: CHRIS SCHULTE
COMMENT:
DWG

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE | POLK COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE ESTIMATE REFERENCE INFORMATION | SHEET NUMBER C1.1

ESTIMATE REFERENCE INFORMATION

Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.

ITEM NO.	DESCRIPTION
	THE 2022 EDITION OF SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTAL SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS OTHERWISE NOTED. ALL REFERENCES TO SECTIONS AND FIGURES ARE TO THE SUDAS STANDARD SPECIFICATIONS.
9.19	EROSION CONTROL MULCH, STRAW SHALL BE APPLIED TO ALL DISTURBED AREAS IN THE EVENT THAT THE SITE WHERE NO WORK IS BEING COMPLETED AND THE AREA WILL NOT BE SEEDED FOR 14 DAYS. MULTIPLES SITE MOBILIZATIONS SHALL BE CONSIDERED INCIDENTAL.
9.20–9.21	REFER TO DETAIL 4 ON SHEET C8.8 FLEXSTORM INLET PROTECTION REQUIRED FOR ALL INTAKES UNTIL VEGETATION IS ESTABLISHED. MAINTENANCE AND REMOVAL OF ACCUMULATED SILT SHALL BE CONSIDERED INCIDENTAL. ITEM QUANTITY INCLUDES ADDITIONAL OFFSITE, DOWNSTREAM INTAKES.
9.22–9.30	REFER TO DIMENSION PLAN & FIELD FENCING PLAN C7.0–C7.1 FOR TYPICAL LOCATIONS. CHAINLINK SHALL BE A MINIMUM OF NO. 9 GAUGE. ALL WIRE, POST, RAILS, AND BRACES SHALL BE BLACK VINYL COATED. REFER TO SHEET C8.8 FOR FENCING AND GATE DETAILS. POST & FOOTINGS ARE INCIDENTAL. GENERAL DETAILS ARE SHOWN ON C8.9 DETAILS 1–3. INSTALL PER MANUFACTURERS SPECIFICATIONS
9.28–9.30	MANUFACTURER SHALL SUBMIT SIGNED ENGINEERED DRAWINGS FOR TIE–BACK & BALL CONTROL NETTING SYSTEMS. CONNECTION TO CHAINLINK FENCING & DUGOUT SHALL BE CONSIDERED INCIDENTAL. ALL POLES SHALL BE BLACK IN COLOR. WALL PAD BACKSTOP SHALL BE CONSIDERED INCIDENTAL, REFER TO DETAILS ON SHEET C8.9. BALL CONTROL INTEGRATION WITH CHAINLIK FENCE SHALL BE CONSIDERED INCIDENTAL, REFER TO DETAIL ON SHEET C8.9.
9.31–9.32	REFER TO DETAILS ON SHEET C8.10 FOR CONSTRUCTION DETAILS. REFER TO DIMENSION PLAN FOR TYPICAL LOCATIONS.
9.33	THE CONTRACTOR SHALL SUBMIT ENGINEERED STRUCTURAL DRAWINGS DESIGNED AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF IOWA. EXCAVATION, FOUNDATION PREPARATION, FURNISHING AND PLACING WALL UNITS, REINFORCED CONCRETE, FOOTINGS, GEOGRID (IF NECESSARY), LEVELING PAD, SUBDRAIN, POROUS BACKFILL MATERIAL FOR SUBDRAIN, ENGINEERING FABRIC FOR SUBDRAIN, SUITABLE BACKFILL MATERIAL, SHORING AS NECESSARY, AND OTHER MATERIAL INCLUDED WITHIN THE STRUCTURAL DRAWINGS SHALL BE CONSIDERED INCIDENTAL TO THIS BID ITEM. GEOGRID AND FENCE/TIE–BACK NETTING FOOTINGS SHALL BE COORDINATED AND CONSTRUCTED TOGETHER. ANY FOOTING SLEEVES (SLEEVE–IT OR APPROVED EQUAL) OR POLE SUPPORTING SHALL BE CONSIDERED INCIDENTAL. FINAL DESIGN QUANTITY (SF) SHALL BE CALCULATED FROM THE APPROVED DRAWINGS. PLAN QUANTITY ON SHEET C.01 IS THE SQUARE FOOTAGE FROM TOP OF WALL (TW) TO FINISHED GRADE AT BASE OF WALL (FGW). REFER TO DETAIL SHEET C8.7 DETAIL 6 FOR SPOT ELEVATION REFERENCE DETAIL. REFER TO SHEET C4.6 FOR LOCATION. RETAINING WALL AND ALL DESIGN ELEMENTS SHALL STAY OUTSIDE THE FLOODPLAIN. REFER TO SHEET C4.7 FOR DETAILED ELEVATIONS AND CALLOUTS.
9.34	REFER TO DIMENSION PLAN FOR TYPICAL LOCATIONS. REFER TO CONTRACT DOCUMENTS–TECHNICAL SPECIFICATIONS FOR PRODUCT SPECIFICATIONS. TURF, INFILL MATERIAL, AGGREGATE LAYERS (DRAINAGE BASE LAYERS) , SUBDRAIN SYSTEM, BASE PLATE AND PCC ANCHORS, NAILER CONNECTION TO SHARED USE PATH, AND PAINT SHALL BE CONSIDERED INCIDENTAL. TURF COLOR OPTIONS SHALL BE APPROVED BY THE OWNER. 52oz ROOTZONE 3D3 BLEND OR APPROVED EQUAL.
11.01	REFER TO SECTION 11,020– MOBILIZATION FOR PAYMENT SCHEDULE.
11.02	CONCRETE WASHOUTS SHALL BE CONCRETE WASHOUT SYSTEMS, INC. ROLL–OFFS OR APPROVED EQUAL. BID INCLUDES DELIVERY, CLEANOUT, AND REMOVAL OF WASHOUTS. ALL MATERIALS REMOVED SHALL BECOME PROPERTY OF CONTRACTOR. WASHING OUT ON BARE GROUND IS NOT PERMITTED.
11.03	BASE BID ELECTRICAL ITEMS FOR PARKING LOT LIGHTING SHALL INCLUDE BUT ARE NOT LIMITED TO; THE INSTALLATION OF A TWO (2) NEW ELECTRICAL SERVICES INTO THE SITE, POWER DISTRIBUTION EQUIPMENT, PARKING LOT LIGHTING, POWER/COMMUNICATIONS ROUGH–INS FOR PARKING LOT GATE & REVENUE CONTROL EQUIPMENT, ETC. REFER TO E–SHEETS FOR LOCATIONS AND NOTES. REFER TO ELECTRICAL SPECIFICATIONS FOR PRODUCT REQUIREMENTS.
11.04	BID ALTERNATE 1 ELECTRICAL SHALL INCLUDE BUT ARE NOT LIMITED TO; THE INSTALLATION OF CONVENIENCE OUTLETS IN DUGOUTS, POWER AND COMMUNICATION ROUGH–INS AND HANDHOLES LOCATED AT BACKSTOPS, HAND HOLES AT ATHLETIC LIGHT POLES, CONDUIT ROUGH–INS FOR ATHLETIC LIGHTING, STRUCTURAL BASES/FOUNDATIONS FOR ATHLETIC LIGHT POLES, ETC. REFER TO E–SHEETS FOR LOCATIONS AND NOTES. REFER TO ELECTRICAL SPECIFICATIONS FOR PRODUCT REQUIREMENTS. CONTRACTOR SHALL SUBMIT ENGINEERED STRUCTURAL & ELECTRICAL DRAWINGS FOR ATHLETIC LIGHTING AND FOOTINGS/FOUNDATIONS.
11.05	BID ALTERNATE 3 ELECTRICAL, GATE ARMS, & CONTROL EQUIPMENT ITEMS SHALL INCLUDE BUT ARE NOT LIMITED TO; FULL PARKING LOT GATE INSTALLATION, INCLUDING ALL PARKING LOT GATE EQUIPMENT FOR A FULLY FUNCTIONING SYSTEM. REFER TO TECHNICAL & ELECTRICAL SPECIFICATIONS, INSTALL PER MANUFACTURERS RECOMMENDATIONS. REFER TO SHEET C3.1 FOR TYPICAL LOCATIONS AND E–SHEETS FOR ASSOCIATED ELECTRICAL SERVICES & NOTES.
11.06	BID ALTERNATE 4 ELECTRICAL SHALL INCLUDE BUT ARE NOT LIMITED TO; CONDUCTORS FOR POWER TO LIGHTS, 408V/3PH PANEL BOARD FOR LIGHTING, GFI RECEPTACLES AND POWER FOR RECEPTACLES AT ATHLETIC POLE LOCATIONS, ALL POLES, LIGHT FIXTURES, AND CONTROLS FOR ATHLETIC LIGHTING. REFER TO ELECTRICAL SPECIFICATIONS FOR PRODUCT SPECIFICATIONS. INSTALL PER MANUFACTURERS RECOMMENDATIONS. REFER TO E–SHEETS FOR LOCATIONS & NOTES. CONTRACTOR SHALL SUBMIT ENGINEERED STRUCTURAL & ELECTRICAL DRAWINGS FOR ATHLETIC LIGHTING.

1 REV

1 REV

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-COVER NOTES QUANTITIES.DWG
FILE DATE: 10/11/22
PLOTTED BY: ERIC SCHULTE
DATE PLOTTED: 10/11/2022 4:36 PM
COMMENT:
DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE

POLK COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE ESTIMATE REFERENCE INFORMATION | SHEET NUMBER C1.2

GENERAL NOTES

1. THE 2020 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
2. ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
3. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
4. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
5. ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO PUBLIC SEWERS CONTRACTOR SHALL NOTIFY THE CITY'S CONSTRUCTION DIVISION.
6. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE CITY OF GRIMES STANDARDS.
7. ALL DIMENSIONS ARE TO BACK OF CURB, BUILDING FACE OR PROPERTY LINE UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
9. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
10. REMOVE ALL DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY.
11. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
12. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
13. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
14. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
15. THE CONTRACTOR SHALL BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
16. CONCRETE REMOVAL FOR DRIVEWAY APPROACHES SHALL BE REMOVED TO THE NEAREST TRANSVERSE JOINT. CONTRACTOR SHALL VERIFY REMOVAL LIMITS WITH CITY OF GRIMES CONSTRUCTION INSPECTOR PRIOR TO ANY CONCRETE REMOVAL.
17. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACTOR BID.
18. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING:
    - A. CITY OF GRIMES
    - B. APPROPRIATE UTILITY COMPANIES
    - C. OWNER
    - D. CIVIL DESIGN ADVANTAGE
21. PARKING LOT STRIPING SHALL BE A 4" WHITE STRIPE UNLESS OTHERWISE NOTED (MINIMUM TWO COATS).
22. ALL EXTERIOR LIGHTING SHALL BE LOW-GLARE FULL CUTOFF TYPE FIXTURES AND SHALL NOT EXCEED ZERO FOOT-CANDLES BEYOND THE PROPERTY LINE. THE CONTRACTOR SHALL COORDINATE FINAL LIGHTING AND ELECTRICAL DESIGN WITH THE OWNER.
23. ANY SITE CHANGES THAT DIFFER FROM THE SITE PLAN MUST BE APPROVED BY THE CITY OF GRIMES PRIOR TO INSTALLATION/AMENDEMENT.
24. WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.
    THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
25. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN ALL SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT. INCLUDING STAGING OF CONSTRUCTION DETAILS.
26. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
27. THE CONTRACTOR MAY BE REQUIRED AS DIRECTED BY THE ENGINEER OR THE CITY, TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY.
28. SPECIAL CARE SHALL BE TAKEN WHEN FORMING AT INTERSECTIONS SO THE PROFILES SHOWN ON THE PLANS AND THE ELEVATIONS SHOWN ON THE INTERSECTION DETAILS ARE OBTAINED. SHORT LENGTHS OF FORMS OR FLEXIBLE FORMS MAY BE NECESSARY AT THESE LOCATIONS.
29. TO OBTAIN THE CORRECT FORM GRADES AT LOW POINTS WHERE INTAKES ARE LOCATED, THE CONTRACTOR MUST EXERCISE ADDITIONAL CARE WHEN PAVING FULL WIDTH PAVEMENTS. THIS MAY REQUIRE POURING ONE HALF OF THE PAVEMENT AT A TIME OR OTHER METHODS APPROVED BY THE ENGINEER.
30. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE PROPOSED AND EXISTING RIGHT OF WAY, CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS.
31. PLAN AND PROFILE SHEETS INCLUDED IN THE PROJECT ARE FOR THE PURPOSE OF ALIGNMENT, LOCATION AND SPECIFIC DIRECTIONS FOR WORK TO BE PERFORMED UNDER THIS CONTRACT. IRRELEVANT DATA ON THESE SHEETS IS NOT TO BE CONSIDERED A PART OF THIS CONTRACT.
32. THE CONTRACTOR IS REQUIRED TO BE FAMILIAR WITH AND COMPLY WITH OSHA STANDARDS. NOTHING WITHIN THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
33. CIVIL DESIGN ADVANTAGE WILL PROVIDE ALL CONSTRUCTION STAKING ON THIS PROJECT. NOTIFY MIKE BROONER (369-4400) A MINIMUM OF 48 HOURS BEFORE CONSTRUCTION STAKES ARE REQUIRED.
34. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES REQUIRED IN THE STORM WATER POLLUTION PREVENTION PLAN.
35. IN THE EVENT OF A DISCREPANCY BETWEEN DETAILED PLANS AND QUANTITIES, THE DETAILED PLANS SHALL GOVERN.
36. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL.
37. ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
38. ALL FIELD TILES ENCOUNTERED SHALL BE REPAIRED AND CONNECTED TO STORM SEWERS WHERE POSSIBLE. LOCATIONS SHALL BE PROVIDED TO ENGINEER FOR NOTATION ON AS-BUILTS.
39. CONTRACTOR SHALL COMPLY WITH ALL A.D.A. REQUIREMENTS FOR ACCESSIBLE SIDEWALK RAMPS INCLUDING RAISED TRUNCATED DOME DETECTABLE WARNINGS.
40. ALL MATERIAL TESTING SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.

GRADING NOTES

1. PRIOR TO ANY GRADING, A COPY OF THE NPDES PERMIT SHALL BE PROVIDED TO THE CITY OF GRIMES' BUILDING DIVISION.
2. THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2 AND CITY OF GRIMES GRADING PERMIT. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.
3. CONTRACTOR SHALL STRIP ALL DELETERIOUS MATERIAL. THE TOP 6" OF TOPSOIL IS TO BE STOCKPILED AND RESPREAD AFTER GRADING IS COMPLETE. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A SUITABLE TOPSOIL STOCKPILE SITE.
4. EXCAVATION SHALL BE IN ACCORDANCE WITH THE 2020 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY OF GRIMES SUPPLEMENTALS, IF APPLICABLE,
5. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
6. ALL SPOT ELEVATIONS ARE FORM GRADE (FG) OR TOP OF FINISHED SURFACES UNLESS OTHERWISE NOTED.
7. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
8. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
9. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
11. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR DETAILS ON EROSION CONTROL.
12. FINAL FINISH GRADING TO BE APPROVED BY THE ARCHITECT AND CIVIL ENGINEER. MATCH EXISTING GRADES AT THE INTERFACE OF NEW AND EXISTING GRADES OR PAVING.
13. SIDEWALKS:
    MAINTAIN 1% MINIMUM AND 5% MAXIMUM LONGITUDINAL SLOPES ON ALL PAVED WALKWAYS. ALL WALKS TO HAVE 2.0% MAXIMUM TRANSVERSE SLOPE IN THE DIRECTION OF NATURAL DRAINAGE. SAW CUT JOINTS AS SOON AS CONCRETE HAS SET. SAW CUTS TO BE 1/8" TO 1/4" WIDE; DEPTH: LONGITUDINAL T/3, TRANSVERSE T/4.
14. EXISTING TOPO FOR THIS AREA WAS TAKEN FROM PROPOSED CONTOURS FOR THE HOPE COMMERCIAL PLAT 1 & HOPE COMMERCIAL PLAT 2. TIE-IN POINTS MAY VARY BASED ON CONSTRUCTED ELEVATIONS.

UTILITY NOTES

1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
2. FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
3. PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
4. BACKFILL ALL UTILITY TRENCHES ACCORDING TO THE 2020 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY OF GRIMES SUPPLEMENTALS. MAINTAIN A MINIMUM OF 5.5' COVER OVER ALL WATERMAINS.
5. ALL UTILITIES SHALL BE STUBBED TO 5 FEET FROM BUILDINGS. REFER TO MEP PLANS FOR DESIGN FROM 5' OUTSIDE OF BUILDING FACE.
6. ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES.
7. ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY'S PLUMBING CODE.
8. 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN.
9. MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
10. WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
11. ALL WATERMAIN WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH THE 2020 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS.
12. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
13. OWNER IS RESPONSIBLE FOR MAINTENANCE OF PRIVATE RETENTION FACILITIES AND PRIVATE UTILITIES. PERIODIC MAINTENANCE AND CLEANING OF STORM AND SANITARY SEWER MAY BE NECESSARY.
14. CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW AND EXISTING SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT NO COST TO THE OWNER. INSTALL SILT FENCE AT ALL PERMANENT STORM SEWER INLETS.
15. ALL MANHOLE CASTINGS IN 5" P.C.C. PAVEMENT SHALL BE BOXED OUT PER FIGURE 7010.103.

LANDSCAPE NOTES

1. LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
2. TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
3. ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, VOIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS; TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
4. SEED OR SOD ALL DISTURBED AREAS AS DIRECTED BY OWNER. SEED SHALL BE SUPER TURF II LS FROM UNITED SEEDS.
5. BACKFILL TO TOP OF CURB. (MINUS 1 1/2" FOR SOD, IF REQ.)
6. WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
7. SHREDDED HARDWOOD MULCH SHALL BE PLACED AROUND ALL TREES, SHRUBS AND IN ALL PLANTING BEDS TO A MINIMUM DEPTH OF 3". ALL GROUPS OF MORE THAN ONE SHRUB SHALL BE MULCHED IN A CONTINUOUS BED, SEPARATED FROM TURF BY A 3" SPADE-CUT EDGE. MULCH AROUND ALL CONIFEROUS TREES SHALL BE A 10' DIAMETER CIRCLE. ALL EDGING SHALL BE METAL EDGE.
8. PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY, THE DRAWING SHALL PREVAIL IF ANY CONFLICTS ARISE.
9. ALL DEBRIS SPILLED IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY.
10. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.

LANDSCAPE REQUIREMENTS

AREAS:
LOT 14 = 1,982,099 SF (45.50 ACRES)
PLAY FIELDS = 1,301,628 SF (29.88 ACRES)
TOTAL NET AREA = 680,471 SF (15.62 ACRES) MINUS PLAY FIELDS

OPEN SPACE:
OPEN SPACE REQUIRED: = 136,094 SF (20%)
OPEN SPACE PROVIDED: = 158,199 SF (23%)
PAVEMENT (262,548 SF)
SIDEWALK (259,725 SF)

OPEN SPACE LANDSCAPE REQUIREMENT:
1 TREES PER 1,000 SF OF REQUIRED OPEN SPACE
REQUIRED: 136 TREES

STREET FRONTAGE (2,114 LF):
1 TREE REQUIRED FOR EVERY 50 FEET OF LOT FRONTAGE
REQUIRED: 43 TREES
PROVIDED: 43 TREES

30' BUFFER (1,370 LF):
1 OVERSTORY, 2 UNDERSTORY & 2 EVERGREENS PER 50 LF.
REQUIRED: 28 OVERSTORY TREES, 56 UNDERSTORY TREES, 56 EVERGREEN TREES
PROVIDED: 103 OVERSTORY TREES, 57 UNDERSTORY TREES, 142 EVERGREEN TREES

TOTAL REQUIRED 133 TREES
TOTAL PROVIDED 302 TREES

NOTE:
REQUIRED STREET TREES AND BUFFER TREES COUNT TOWARDS REQUIRED OPEN SPACE TREES

PLANT SCHEDULE

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
PD	22	Douglas Fir	Pseudotsuga menziesii	B&B, 6' HEIGHT
PG	66	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6' HEIGHT
PS	60	White Pine	Pinus strobus	B&B, 6' HEIGHT
ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AG	35	Autumn Brilliance Apple Serviceberry	Amelanchier x grandiflora 'Autumn Brilliance'	B&B, 1.5" CALIPER
MS	7	Spring Snow Crab Apple	Malus x 'Spring Snow'	B&B, 1.5" CALIPER
PN	15	Newport Flowering Plum	Prunus cerasifera 'Newport'	B&B, 1.5" CALIPER
OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AS	13	Sienna Glen Maple	Acer x freemanii 'Sienna'	B&B, 2" CALIPER
BR	3	River Birch	Betula nigra	B&B, 2" CALIPER
CM	1	Crimson King Maple	Acer platanoides 'Crimson King'	B&B, 2" CALIPER
QB	10	Swamp White Oak	Quercus bicolor	B&B, 2" CALIPER
QR	39	Red Oak	Quercus rubra	B&B, 2" CALIPER
RM	4	Autumn Spire Red Maple	Acer rubrum 'Autumn Spire'	B&B, 2" CALIPER
TC	33	Littleleaf Linden	Tilia cordata	B&B, 2" CALIPER
SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CH	10	Ivory Halo Dogwood	Cornus alba 'Bailhalo' TM	24" HEIGHT
EC	15	Compact Burning Bush	Euonymus alatus 'Compactus'	24" HT.
JF	41	Sea Green Juniper	Juniperus chinensis 'Sea Green'	24" HT.
JS	26	Spartan Juniper	Juniperus chinensis 'Spartan'	36" HT.

1 REV

LANDSCAPE LEGEND

SHREDDED HARDWOOD MULCH
SOD
TYPE 1 SEED
TYPE 3 SEED

CITY OF GRIMES STANDARD NOTES FOR PUBLIC IMPROVEMENTS

1. GENERAL NOTES:

A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT VERSION OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS FOR PUBLIC IMPROVEMENTS ON THE DATE OF APPROVAL AND THE CITY OF GRIMES SUPPLEMENTAL SPECIFICATIONS.
B. PROVIDE GEOTECHNICAL EXPLORATION AND REPORT FOR ALL PROPOSED STREET, SANITARY AND STORM SEWER AND WATER MAIN PROJECTS IN ACCORDANCE WITH THE SUDAS DESIGN MANUAL; SUBMIT WRITTEN REPORT AND TEST RESULTS TO CITY FOR REVIEW.
C. A PRECONSTRUCTION MEETING IS REQUIRED PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THIS MEETING. CONTACT CITY OF GRIMES ENGINEERING DEPT. (515.986.4050).
D. ALL PERMITS (IDNR, SWPP, IDOT, ARMY CORP., ETC.) SHALL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.
E. THE DEVELOPER AND/OR CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE CITY OF GRIMES WITH RECORD DRAWINGS OF ALL IMPROVEMENTS AS PER CITY STANDARD PROCEDURES.
F. TYPICAL BUILDING LAYOUT TO REFLECT THE CITY'S SERVICE ORDER FROM LEFT TO RIGHT FACING THE LOT, SANITARY, WATER, SUMP. MARK ENDS OF SERVICES WITH STEEL FENCE POST AND PAINT GREEN FOR SANITARY, BLUE FOR WATER, AND WHITE FOR STORM.
G. ALL SERVICES LOCATIONS ARE TO BE STAMPED INTO THE CURB WITH LETTER IRONS AS PER CITY STANDARD PROCEDURES.
H. PROVIDE A 4-YEAR MAINTENANCE BOND FOR ALL PUBLIC IMPROVEMENTS.

2. SANITARY SEWER NOTES:

A. THE CONTRACTOR IS REQUIRED TO PLACE A TEMPORARY PLUG IN THE EXISTING DOWNSTREAM SANITARY SEWER MANHOLE PRIOR TO THE START OF CONSTRUCTION. THE PLUG SHALL BE REMOVED FOLLOWING APPROVAL OF CONSTRUCTION BY THE CITY OF GRIMES.
B. SANITARY GRAVITY PIPE MATERIAL SHALL BE PVC SDR 26 OR TRUSS (8" TO 15").
C. SANITARY GRAVITY SERVICE PIPE MATERIAL SHALL BE PVC SDR 23.5 (4" TO 6").
D. ALL SANITARY SEWER MANHOLES SHALL HAVE STEPS.
E. ALL SANITARY SEWER MANHOLES CASTINGS SHALL BE SEALED WITH HEAT SHRINK SLEEVES.
F. ALL MANHOLES SHALL BE EXTERIOR COATED WITH BITUMINOUS WATERPROOFING.
G. ALL SANITARY SEWER MANHOLE CASTINGS LOCATED WITHIN PAVEMENT SHALL BE TYPE B: PCC W/ADJUSTING MECHANISM.
H. SANITARY SEWER CLEANING & TELEVISING SHALL BE COMPLETED PRIOR TO PAVING. THE SEWER SYSTEM SHALL BE FLUSHED WITH WATER PRIOR TO TELEVISING.

3. WATER MAIN NOTES:

A. ALL FIRE HYDRANTS SHALL BE AMERICAN FLOW CONTROL-WATEROUS PACER WB-67-250, MUELLER SUPER CENTURION 250 (3-WAY A-423), OR CLOW MEDALLION F-2545. ALL HYDRANTS SHALL HAVE THE FOLLOWING: 6"MJ SHOE, 2-1/2"HOSE NOZZLE, 4-1/2"STEAMER NOZZLE, NST THREADS, PENTAGON OPERATING NUT, CHAIN ON CAP, OPEN LEFT, 5-1/2' BURY, AND FACTORY PAINTED RED. THE MINIMUM SPOOL PIPE LENGTH FROM AUXILIARY VALVE TO HYDRANT SHOE SHALL BE 2.0'.
B. ALL HYDRANTS WILL IMMEDIATELY BE COVERED WITH A BLACK PLASTIC BAG (OR EQUIVALENT) ONCE THE HYDRANT IS INSTALLED. THE CITY OF GRIMES WILL NOTIFY THE CONTRACTOR WHEN THE BAGS CAN BE REMOVED.
C. A TRACER WIRE RECEPTACLE SHALL BE INSTALLED AT EACH HYDRANT, AA MANUFACTURING TRACER WIRE RECEPTACLE MODEL TW-18-2.
D. ALL VALVES SHALL BE RESILIENT WEDGE GATE VALVES.
E. WATER SERVICE SHALL BE 1-INCH MINIMUM TYPE K COPPER. CURB STOP TO BE LOCATED AT ROW LINE.
F. PROPOSED WATER MAIN SHALL BE PRESSURE TESTED AND CHLORINATED BY THE DEVELOPER. THE FILLING OF THE WATER MAIN SHALL BE DONE BY THE CITY OF GRIMES. THE BACTERIA TEST AND SUBMITTAL OF TEST TO LAB SHALL BE DONE BY THE DEVELOPER AND RESULTS PROVIDED TO THE CITY OF GRIMES ENGINEERING DEPT. AND BY FAX TO US WATER AT 515-986-7300. IF THE TEST DOES NOT PASS, THE CONTRACTOR WILL BE REQUIRED TO PAY FOR ALL THE WATER USED TO REPEAT THE TEST.
G. ALL WATERMAIN FITTINGS TO BE RESTRAINED JOINT, MEGA-LUG OR APPROVED EQUAL.

4. STORM SEWER NOTES:

A. ALL STORM SEWER IN THE ROW SHALL BE RCP, UNLESS OTHERWISE APPROVED BY THE CITY.
B. ALL FLARED END SECTIONS SHALL HAVE FOOTINGS AND APRON GRATES. THE LAST 3 PIPE SECTIONS AND THE FLARED END SECTION ON ALL CULVERTS SHALL BE TIED. ALL STORM SEWER JOINTS SHALL BE WRAPPED WITH ENGINEERING FABRIC.
C. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY FIELD TILE DAMAGED DURING CONSTRUCTION. THE TILE SHOULD BE DIRECTED TO PUBLIC STORM SEWER IF POSSIBLE. THE CONTRACTOR SHALL RECORD THE ELEVATION AND LOCATION OF ALL TILES.
D. STORM SEWER CLEANING & TELEVISING SHALL BE COMPLETED PRIOR TO PAVING. THE SEWER SYSTEM SHALL BE FLUSHED WITH WATER PRIOR TO TELEVISING.
E. USE O RING GASKETS ON STORM SEWERS CROSSING OVER WATERMAIN PER IDNR REQUIREMENT.

5. SIGNAGE NOTES:

A. ALL SIGNAGE SHALL BE SUPPLIED AND INSTALLED BY THE CITY OF GRIMES. THE CITY WILL BILL THE DEVELOPER FOR THE COSTS ASSOCIATED WITH THE SIGNAGE.
B. THE HEIGHT OF SIGNS SHALL BE 7-FEET FROM THE BASE OF THE SIGN TO THE GROUND.
C. ALL SIGNS SHALL BE NOT LESS THAN 1.5' FROM EDGE OF SIGN TO BACK OF CURB.
D. STOP SIGNS SHALL BE AS PER MUTCD R1-1 TYPE, 30"X30".
E. NO PARKING SIGNS SHALL BE AS PER MUTCD R8-3 TYPE, 12"X12". IF POSSIBLE, PLEASE MOUNT THE NO PARKING SIGNS TO LIGHT POLES (1ST/ PREFERENCE).
F. ALL SPEED LIMIT SIGNS SHALL BE AS PER MUTCD R2-1 (25 MPH), 24"X30".
G. ALL STREET NAME SIGNS SHALL BE WHITE ON BLACK ON A 6"BLANK WITH 4"LETTERS (LOCALS) OR 8"BLANK WITH 6"LETTERS (COLLECTORS/ARTERIALS) AND SHALL BE DIRECTLY FASTENED TO SQUARE TUBE POSTS. EACH SIGN POST SHALL HAVE FOUR (4) STREET SIGNS THAT SHALL BE CONNECTED TO POST BY RIVETING THE SIGNS BACK TO BACK ON OPPOSITE SIDES OF THE SQUARE TUBE POST. THE BACK TO BACK ENDS OF STREET NAME SIGNS SHALL BE CONNECTED WITH CIRCULAR STABILIZERS.
H. ALL SIGN POSTS SHALL BE TELESPAR 2"X2" SQUARE TUBE POWDER COATED BLACK GALVANIZED STEEL (14-GAUGE MIN.) WITH 7/16" KNOCK-OUT STYLE PERFORATIONS THAT ARE PRE-PUNCHED.
I. ROAD CLOSED SIGNS SHALL BE AS PER IDOT ROAD STANDARD SI-182.
J. ALL SIGNS SHALL BE HIGH INTENSITY PRISMATIC.

SIGN LEGEND

- 01 ACCESSIBLE PARKING SIGN (R7-8)
- 02 VAN ACCESSIBLE PARKING SIGN (R7-8A)
- 03 STOP SIGN (R1-1)

PAVEMENT LEGEND

- 4" P.C.C.
- 5" P.C.C.
- 5" P.C.C. (SHARED USE PATH PLAZA)
- 6" P.C.C.
- 7" P.C.C.
- 8" P.C.C.

PAVEMENT NOTES

1. ALL PAVEMENT WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH SUDAS STANDARDS SPECIFICATIONS.
2. SIDEWALKS, DRIVEWAYS, DRIVE LANES WITHIN PARKING AND PARKING SPACES SHALL BE CLASS C PORTLAND CEMENT CONCRETE (P.C.C.) COARSE AGGREGATE FOR P.C.C. CONSTRUCTION SHALL BE CLASS 3 DURABILITY.
3. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
4. PAVEMENT THICKNESS:

SIDEWALKS	4" P.C.C.
SHARED USE PATH	5" P.C.C.
TRAIL	6" P.C.C.
SIDEWALK RAMPS	6" P.C.C.
STANDARD DUTY PAVING	6" P.C.C.
MEDIUM DUTY PAVING	7" P.C.C.
HEAVY DUTY PAVING/TRASH ENCLOSURE	8" P.C.C.

FEMA FLOOD INSURANCE RATE MAP

REFERENCE OF EFFECTIVE FIRM

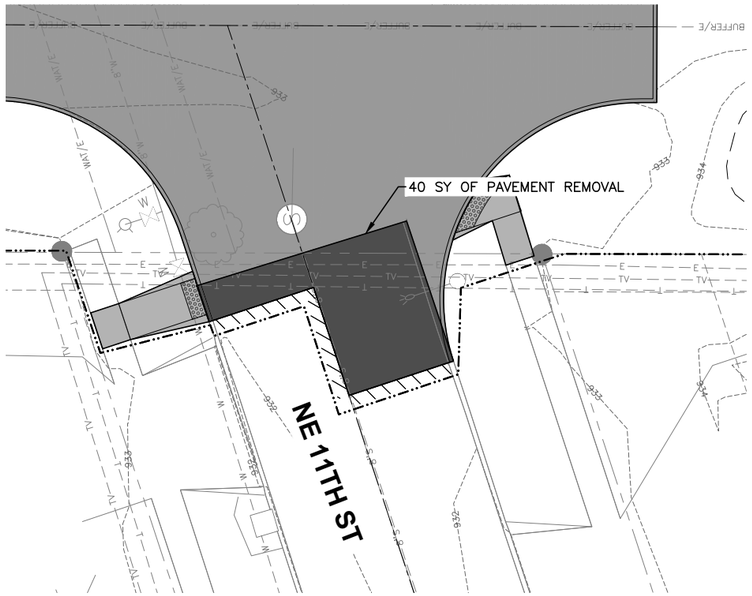
POLK COUNTY, PANEL 160 OF 555
MAP NUMBER= 19153C0160F
EFFECTIVE DATE FEBRUARY DATE= FEBRUARY 1, 2019

TRAFFIC CONTROL NOTES:

1. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
3. THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
4. SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES. SIGNAGE AND TEMPORARY PEDESTRIAN ACCESS ROUTE THROUGH CONSTRUCTION AREA SHALL MEET THE REQUIREMENTS OF PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG), SECTION R205 AND IOWA DOT DESIGN MANUAL, CHAPTER 12A-4.
5. THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
6. TRAFFIC CONTROL REQUIRED ON ALL PUBLIC STREETS DURING ANY WORK WITHIN EXISTING RIGHT-OF-WAY. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE CITY FOR APPROVAL PRIOR TO CONSTRUCTION.
7. ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
8. ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUCTD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.

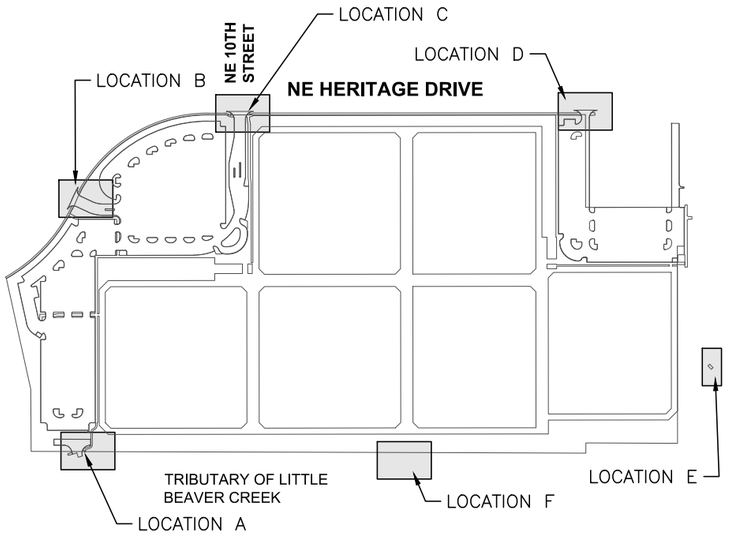
NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-COVER NOTES QUANTITIES.DWG
FILE DATE: 10/11/22 DATE PLOTTED: 10/11/2022 4:36 PM COMMENT:
PLOTTED BY: ERIC SCHULTE TECH: ENG:



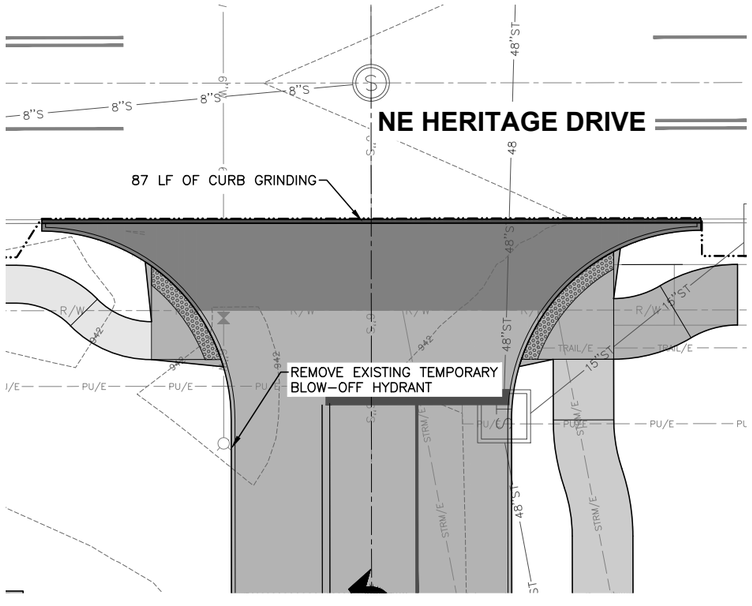
LOCATION 'A'

LOCATION 'B'

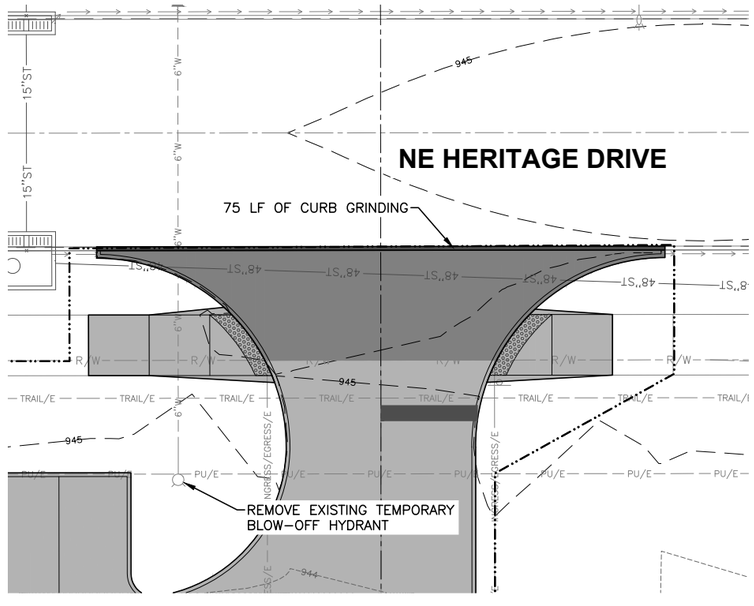


SHEET LEGEND

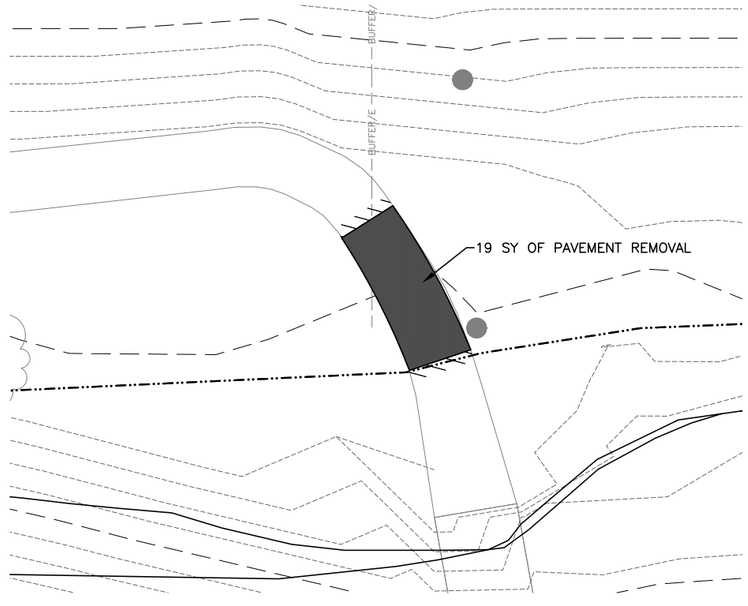
NOT TO SCALE



LOCATION 'C'



LOCATION 'D'

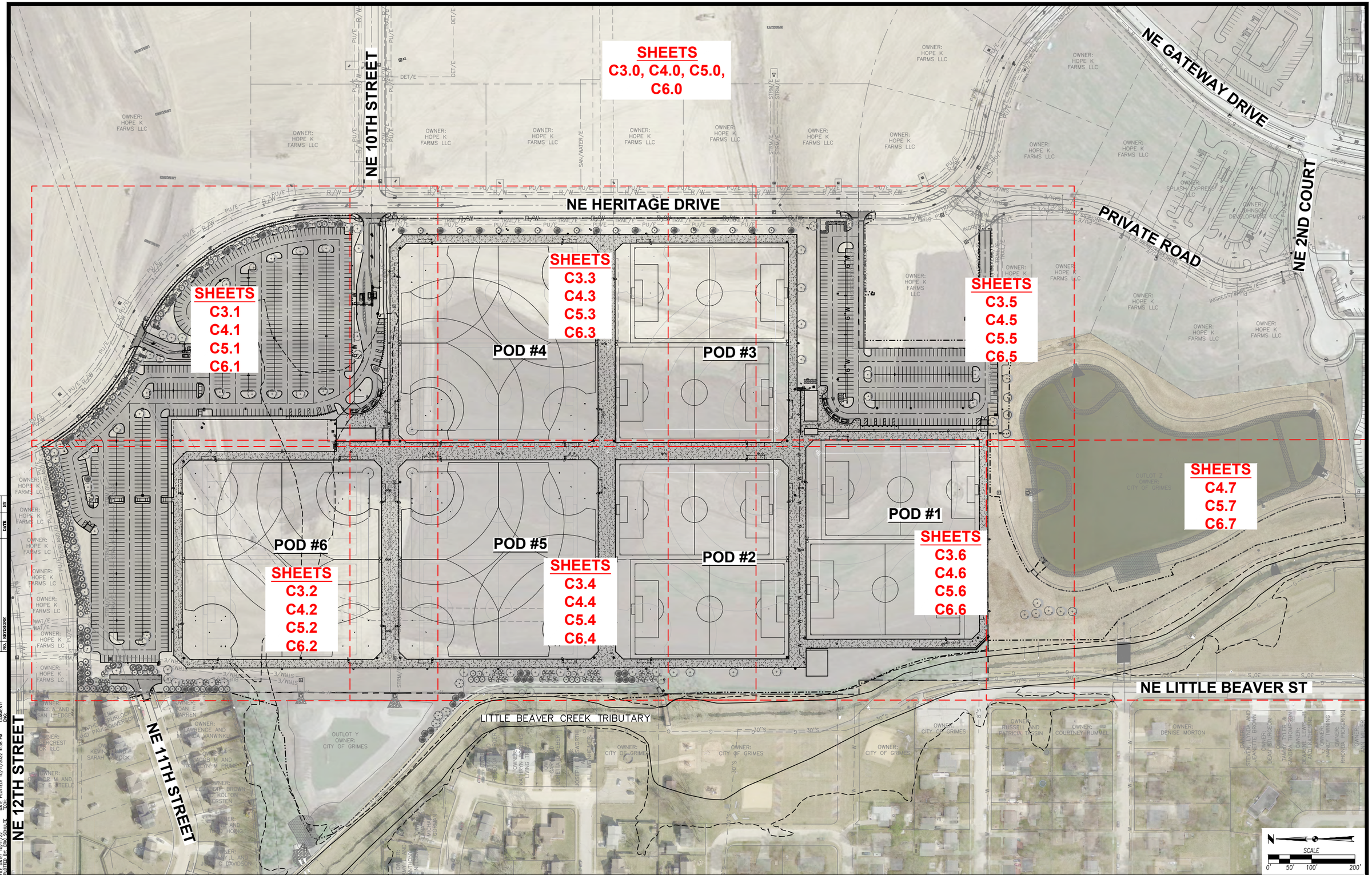


LOCATION 'F'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DEMO SHEETS.DWG
PLT DATE: 9/13/22
PLOTTED BY: JOSE SCHULTE
DATE PLOTTED: 10/11/2022 4:37 PM
COMMENT: DSC

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	DEMOLITION PLAN	SHEET NUMBER	C1.4



NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-SHEET LAYOUT.DWG
DATE PLOTTED: 10/11/2022 4:38 PM
PLOTTED BY: BRETT WOLTE
FILE DATE: 10/11/22

COMMENT:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	SHEET LAYOUT	SHEET NUMBER	C2.0

PHASE 2 STAGING NOTES

THE CONTRACTOR SHALL BEGIN PHASE 2 AFTER USE OF POD #1 IS OPERATIONAL. THE CONTRACTOR MAY CONTINUE GRADING AND UNDERGROUND UTILITY CONSTRUCTION AS LONG AS POD #1 UTILITIES ARE INSTALLED. CONTRACTOR SHALL GET APPROVAL FROM THE ENGINEER AND CITY PRIOR TO WORKING ON MULTIPLE PHASES.

PHASE 1 STAGING NOTES

THE CONTRACTOR SHALL PRIORITIZE THE COMPLETION OF PHASE 1 FOR SUBSTANTIAL COMPLETION FOR THE USE OF POD #1 PER CONTRACT DOCUMENTS.

NE 10TH STREET

NE HERITAGE DRIVE

NE GATEWAY DRIVE

PRIVATE ROAD

NE 2ND COURT

NE 12TH STREET

NE 11TH STREET

NE LITTLE BEAVER ST

LITTLE BEAVER CREEK TRIBUTARY

POD #1

POD #2

POD #3

POD #4

POD #5

POD #6

PARKING & SIDEWALK PCC (TYP.)

LANDSCAPING (TYP.)

WATER SERVICE (TYP.)

PARKING LOT GATE ARMS

SYNTHETIC TURF

STORM SEWER (TYP.)

SANITARY SEWER SERVICE (TYP.)

FIELD FENCING, DUGOUTS, & BALL CONTROL & TIE-BACK NETTING & FOOTINGS (TYP.)

FIELD LIGHTING (TYP.)

SANITARY SEWER SERVICE CONNECTION

RETAINING WALL

OUTLOT Y
OWNER:
CITY OF GRIMES

OUTLOT Z
OWNER:
CITY OF GRIMES

OWNER:
HOPE K
FARMS LLC

OWNER:
CITY OF GRIMES

OWNER:
LEORY A AND
SUSAN L EDGE

OWNER:
DESERCREST
OK LLC

OWNER:
CONNOR M AND
KELSEY E STEELE

OWNER:
HEATHER SPURLOCK
AND PAUL OVERSON

OWNER:
KEVIN L AND
SARAH SCHOCK

OWNER:
JOAN E
WARREN

OWNER:
LAWRENCE AND
MIRANDA VANWINKLE

OWNER:
JACOB M AND
KATELYN M PRIME

OWNER:
ELIZABETH BROWN
AND KOLTON
KERSTEN

OWNER:
ROND AND
TODD HOING

OWNER:
BETHANY L AND
JOHN C DAVIDSON

OWNER:
RYAN AND
REBECCA BURGER

OWNER:
KATHRYN ROBBINS
LIVING TRUST

OWNER:
GARY AND
LORETTA SCHEIBER

OWNER:
JOSEPH ELLSWORTH
AND
JILL WEINHEIMER

OWNER:
RUSSELL AND
PATRICIA TASSIN

OWNER:
COURTNEY RUMMEL

OWNER:
DENISE MORTON

OWNER:
STEVEN, LYNDA AND
JEANETTE BROWN

OWNER:
DEAN GUNDERSON

OWNER:
TAMMY TYLER &
SANDRA THOMPSON

OWNER:
DEWAYNE LEWIS JR
AND KATHERINE
KINNEY

OWNER:
NANCY TWINING

OWNER:
RHONDA PFOERRING

OWNER:
ANN MILLER

OWNER:
JOHNSON
DEVELOPMENT LLC

SCALE
0' 50' 100' 200'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-SHEET LAYOUT.DWG
DATE PLOTTED: 10/17/2022 4:38 PM
PLOT DATE: 10/17/22
PLOTTED BY: CHRIS HULIT
COMMENT:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	STAGING PLAN	SHEET NUMBER	C2.1

NE 10TH STREET

NE GATEWAY DRIVE

NE HERITAGE DRIVE

PRIVATE ROAD

NE 2ND COURT

NE 12TH STREET

NE 11TH STREET

NE LITTLE BEAVER ST

LITTLE BEAVER CREEK TRIBUTARY

PARKING LOT GATE ARMS (BID ALTERNATE 3) (TYP.)

ATHLETIC FIELD LIGHTING POLES & FIXTURES (BID ALTERNATE 4) (TYP.)

CONSTRUCTED DUGOUTS (BID ALT. 1) (TYP.)

SHARED USE PATH, FENCING, GATES, NETTING, & ELECTRICAL (BID ALT. 1) (TYP.)

ATHLETIC FIELD LIGHTING POLES & FIXTURES (BID ALTERNATE 4) (TYP.)

POD #1
SYNTHETIC TURF
BID ALT. 2

POD #2
SYNTHETIC TURF
BID ALT. 2

POD #3
SYNTHETIC TURF
BID ALT. 2

POD #4
SYNTHETIC TURF
BID ALT. 2

POD #5
SYNTHETIC TURF
BID ALT. 2

POD #6
SYNTHETIC TURF
BID ALT. 2

BID ALTERNATES LEGEND

1. SHARED USE PATH PLAZA PCC, FENCE, GATES, NETTING, DUGOUTS, & ELECTRICAL
2. SYNTHETIC TURF
3. PARKING LOT GATE ARMS, & REVENUE CONTROL EQUIPMENT
4. ATHLETIC FIELD LIGHTING POLES & FIXTURES

OWNER: HOPE K FARMS LLC

OWNER: CITY OF GRIMES

OWNER: SPLASH EXPRESS LLC

OWNER: JOHNSON DEVELOPMENT LC

OWNER: LEORY A AND SUSAN L EDGE

OWNER: HEATHER SPURLOCK AND PAUL OLIVERSON

OWNER: JOAN E WARREN

OWNER: DESERCREST OK LLC

OWNER: KEVIN L AND SARAH SCHOCK

OWNER: LAWRENCE AND MIRANDA VANWINKLE

OWNER: JACOB M AND KATELYN M PRIME

OWNER: CONNOR M AND KELSEY E STEELE

OWNER: ELIZABETH BROWN AND KOLTON KERSTEN

OWNER: ROND AND TODD HOING

OWNER: BETHANY L AND JOHN C DAVIDSON

OUTLOT Y
OWNER: CITY OF GRIMES

OWNER: RYAN AND REBECCA BURGER

OWNER: KATHRYN ROBBINS LIVING TRUST

OWNER: GARY AND LORETTA GRAEBER

OWNER: JOSEPH ELLSWORTH AND JILL WEINHEIMER

OWNER: AMY L AND ANTHONY J NELSON

OWNER: MICHAEL AND LAURA GORMAN

OWNER: CITY OF GRIMES

OWNER: RUSSELL AND PATRICIA TASSIN

OWNER: COURTNEY RUMMEL

OWNER: DENISE MORTON

OWNER: STEVEN, LINDA AND JEANETTE BROWN

OWNER: DEAN OLSON

OWNER: TAMMY TYLER & SANDRA THOMPSON

OWNER: DEWAYNE LEWIS JR AND KATHERINE KINNEY

OWNER: NANCY TWINING

OWNER: RHONDA PICKERING

OWNER: AND MILLER

N

SCALE
0' 50' 100' 200'

NO.	REVISIONS	DATE	BY
1	ADDENDUM 1	10/31/22	LAS

COMMENT:
DATE PLOTTED: 10/31/2022 4:38 PM
PLOTTED BY: Shelli Tyler
FILE PATH: 2022\2202086\Work\Site Plan\2202086-SHEET LAYOUT.dwg
FILE: H:\2022\2202086\Work\Site Plan\2202086-SHEET LAYOUT.dwg

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE BID ALTERNATES EXHIBIT	SHEET NUMBER C2.2

NE HERITAGE DRIVE

NE 10TH STREET

NE 2ND COURT

NE LITTLE BEAVER ST

NE 12TH STREET

NE 11TH STREET

POD #1

POD #2

POD #3

POD #4

POD #5

POD #6

OUTLOT Z
OWNER:
CITY OF GRIMES

OUTLOT Y
OWNER:
CITY OF GRIMES

OWNER:
HOPE K
FARMS LLC

OWNER:
SPLASH EXPRESS
LLC

OWNER:
JOHNSON
DEVELOPMENT LC

OWNER:
CITY OF GRIMES

OWNER:
LEORY A AND
SUSAN L EDGE

OWNER:
HEATHER SPURLOCK
AND PAUL OLIVERSON

OWNER:
DESERCREST
OK LLC

OWNER:
KEVIN L AND
SARAH SCHOCK

OWNER:
CONNOR M AND
KELSEY E STEELE

OWNER:
JOAN E
WARREN

OWNER:
LAWRENCE AND
MIRANDA VANWINKLE

OWNER:
JACOB M AND
KATELYN M PRIME

OWNER:
ELIZABETH BROWN
L AND KOLTON
KERSTEN

OWNER:
ROND AND
TODD HOING

OWNER:
BETHANY L AND
JOHN C DAVIDSON

OWNER:
RYAN AND
REBECCA BURGER

OWNER:
KATHRYN ROBBINS
LIVING TRUST

OWNER:
GARY AND
LORETTA GRAEBER

OWNER:
JOSEPH ELLSWORTH
AND
JILL WEINHEIMER

OWNER:
LAURA L AND
MICHAEL
GORMAN

OWNER:
AMY L AND
ANTHONY J
NELSON

OWNER:
RUSSELL AND
PATRICIA TASSIN

OWNER:
COURTNEY RUMMEL

OWNER:
DENISE MORTON

OWNER:
STEVEN, LYNDA AND
JEANETTE BROWN

OWNER:
TAMMY EGEON
DEAN

OWNER:
TAMMY TYLER &
SANDRA THOMPSON

OWNER:
DEWAYNE LEWIS JR
AND KATHERINE
KINNEY

OWNER:
NANCY TWINING

OWNER:
RHONDA PICKERING

OWNER:
ANN MILLER

SCALE
0' 50' 100' 200'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DIMENSION SHEETS.DWG
FILE DATE: 10/21/22
PLOTTED BY: CHRIS SCHULTE
DATE PLOTTED: 10/17/2022 4:39 PM
COMMENT:
SCALE:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE		POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	DIMENSION PLAN	SHEET NUMBER	C3.0

NE HERITAGE DRIVE (BY OTHERS)

NE 10TH ST (BY OTHERS)

SHEET LEGEND

DETECTABLE WARNING (TYP.)

5.0' SIDEWALK (4" P.C.C.)

DOUBLE CENTERLINE YELLOW (DCY4) (TYP.)

8.0' TRAIL (6" P.C.C.)

STOP LINE WHITE (SLW8) (TYP.)

6' CHAIN LINK FENCE (TYP.)

8' X 30' DUGOUT

10' CHAIN LINK FENCE (TYP.)

30' TENSION NETTING

LEFT TURN ARROW WHITE (LTAW) (TYP.)

SOLID LANE LINE WHITE (SLW4) (TYP.)

INTEGRAL 6" STANDARD CURB (TYP.)

BOLLARD (TYP.)

5" PCC

6" P.C.C. (TYP.)

4' WIDE SWINGING GATE (TYP.)

BALL CONTROL NETTING (TYP.)

6' CHAIN LINK FENCE (TYP.)

GATE ARM

LOOP DETECTOR (TYP.)

NO CURB (FLUSH)

POD #4

PAINTED ACCESSIBLE PARKING SYMBOL (TYP.)

CLASS "A" CURB & SIDEWALK

12' WIDE SWINGING GATE

(10) ACCESSIBLE PARKING SIGN ON BOLLARD

CHANNELING LINE YELLOW (CHY8) (TYP.)

40' TENSION NETTING

10' CHAIN LINK FENCE (TYP.)

8' X 40' DUGOUT

SCALE 0' 15' 30' 60'

R450'

R550'

R61.5'

R81.5'

R51.5'

R118.5'

R137.5'

R178.5'

R162.5'

R20'

R10'

R15'

R12.5'

R6'

R2.5'

R1.5

R62'

41.5'

36.0'

37.0'

99.0'

80.9'

89.9'

206.7'

224.7'

279.0'

288.0'

252.0'

261.0'

297.0'

75.2'

161.0'

45.0'

41.0'

54.0'

16.0'

3.0'

24.9'

41.4'

424.9'

413.0'

LEFT TURN ARROW WHITE (LTAW) (TYP.)

STOP LINE WHITE (SLW2) (TYP.)

SOLID LANE LINE WHITE (SLW4) (TYP.)

8" P.C.C.

6" P.C.C.

37.0'

CHANNELING LINE YELLOW (CHY8) (TYP.)

GATE ARM (TYP.)

BOLLARD (TYP.)

LOOP DETECTOR (TYP.)

DOUBLE CENTERLINE YELLOW (DCY4) (TYP.)

5" CLASS A SIDEWALK

CLASS "A" CURB & SIDEWALK

DETECTABLE WARNING (TYP.)

SIDEWALK RAMPS (P.C.C. 6")

INTEGRAL 6" STANDARD CURB (TYP.)

CLASS A SIDEWALK

6' CHAIN LINK FENCE (TYP.)

(10) ACCESSIBLE PARKING SIGN ON BOLLARD

NO CURB (FLUSH)

REMOVABLE BOLLARDS

5" P.C.C. (5') SHARED USE PATH (TYP.)

GATE (BY OTHERS)

APPROXIMATE FUTURE BUILDING LOCATION (PRIOR TO THE COMPLETION OF PROPOSED WORK SURROUNDING FUTURE BUILDINGS, THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT TO MAKE CERTAIN FINAL BUILDING FOOTPRINTS ARE ACCOUNTED FOR)

SHARED USE PATH (5" P.C.C.)

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DIMENSION SHEETS.DWG
FILE DATE: 10/21/22
PLOTTED BY: BRETT SCHULTE
DATE PLOTTED: 10/21/2022 4:39 PM
COMMENT: DSG

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DIMENSION PLAN	SHEET NUMBER C3.1

R550'
R5'
6" P.C.C. (TYP.)
5.0' SIDEWALK (4" P.C.C.)
INTEGRAL 6" STANDARD CURB (TYP.)
18.0'
16.5'
9.5'
162.0'
126.0'
81.0'
117.0'
41.5'
R3'
18.0'
R54'
7.4'
R20'
DUMPSTER ENCLOSURE (8" P.C.C.)
SOLID LANE LINE WHITE (SLW4) (TYP.)
CLASS "A" CURB & SIDEWALK
CLASS A SIDEWALK
25.0'
R2'
R12'
DETECTABLE WARNING (TYP.)
8.0'
5.0'
10.0'
10' CHAIN LINK FENCE (TYP.)
8' CHAIN LINK FENCE (TYP.)
346.7'
5" P.C.C. SHARED USE PATH (TYP.)
8' X 30' DUGOUT
4' WIDE SWINGING GATE (TYP.)
30' TENSION NETTING
6' CHAIN LINK FENCE (TYP.)
5' OPENING (TYP.)
10' WIDE SWINGING GATE (TYP.)
424.9'
20.0'
41.4'
24.9'
22.3'
ELECTRIC (TYP.) (REFER TO ELECTRICAL PLAN)
90'
17.3'
14.7'
8' X 40' DUGOUT
40' TENSION NETTING
SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)
SHEET LEGEND
POD #6
POD #5
40.0'
441.4'
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
12' WIDE SWINGING GATE
BALL CONTROL NETTING (TYP.)
17.0'
24.0'
36.0'
16.5'
279.0'
297.0'
324.0'
252.0'
INTEGRAL 6" STANDARD CURB (TYP.)
R8'
R10'
R20'
CLASS "A" CURB & SIDEWALK
6" P.C.C. (TYP.)
7" P.C.C. (TYP.)
120.0'
20.0
32.6'
R26'
5.0' SIDEWALK (4" P.C.C.)
14.5'
6.6'
4.0'
8.0'
5' OPENING (TYP.)
8' X 30' DUGOUT
8' X 40' DUGOUT
10' CHAIN LINK FENCE (TYP.)
8' CHAIN LINK FENCE (TYP.)
30' TENSION NETTING
6' CHAIN LINK FENCE (TYP.)
4' WIDE SWINGING GATE (TYP.)
SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)
5" P.C.C. SHARED USE PATH (TYP.)
12' WIDE SWINGING GATE
N
SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DIMENSION SHEETS.DWG
FILE DATE: 10/7/22
PLOTTED BY: Ryan Schulte
DATE PLOTTED: 10/11/2022 4:59 PM
COMMENT:
DISC:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DIMENSION PLAN	SHEET NUMBER C3.2

424.9'
40.0'
424.9'
10' CHAIN LINK FENCE (TYP.)
24.9'
4' WIDE SWINGING GATE (TYP.)
6' CHAIN LINK FENCE (TYP.)
4' WIDE SWINGING GATE (TYP.)
8' X 30' DUGOUT
30' TENSION NETTING
5' OPENING (TYP.)
8' X 30' DUGOUT
BALL CONTROL NETTING (TYP.)
POD #5
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
12' WIDE SWINGING GATE
40.0'
424.4'
442.4'
382.4'
5" P.C.C. SHARED USE PATH (TYP.)
8' CHAIN LINK FENCE (TYP.)
5" P.C.C. SHARED USE PATH (TYP.)
6' CHAIN LINK FENCE (TYP.)
4' WIDE SWINGING GATE (TYP.)
10' CHAIN LINK FENCE (TYP.)
5' OPENING (TYP.)
40' TENSION NETTING
8' X 40' DUGOUT
5' OPENING (TYP.)
BALL CONTROL NETTING (TYP.)
POD #2
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
POD #2
12' WIDE SWINGING GATE
12' WIDE SWINGING GATE
442.4'
40.0'
BALL CONTROL NETTING (TYP.)
442.4'
BALL CONTROL NETTING (TYP.)
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
6' CHAIN LINK FENCE (TYP.)
4' WIDE SWINGING GATE (TYP.)
5' OPENING (TYP.)
8' X 30' DUGOUT
5' OPENING (TYP.)
8' X 30' DUGOUT
30' TENSION NETTING
30' TENSION NETTING
10' CHAIN LINK FENCE (TYP.)
4' WIDE SWINGING GATE (TYP.)
10' CHAIN LINK FENCE (TYP.)
8' X 30' DUGOUT
4' WIDE SWINGING GATE (TYP.)
8' X 30' DUGOUT
424.9'
24.9'
24.9'
382.4'
20.0'
20.0'
45.0'
APPROXIMAT (PRIOR TO FUTURE BU ARCHITECT ACCOUNTED
6' CHAIN LINK FENCE (TYP.)
LINK FENCE
1430'
6' CHAIN LINK FENCE (TYP.)
8' CHAIN LINK FENCE (TYP.)
30' PUBLIC TRAIL EASEMENT BK 16338, PG 354
8' CHAIN LINK FENCE (TYP.)
6' CHAIN LINK FENCE (TYP.)
EX 8.0 PUBLIC TRAIL (PROTECT)
SPECIAL FLOOD HAZARD AREAS REGULATORY FLOODWAY (TYP.)
SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)
SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)
5" P.C.C. SHARED USE PATH (TYP.)

SHEET LEGEND

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DIMENSION SHEETS.DWG
DATE PLOTTED: 10/11/2022 4:39 PM
PLOTTED BY: JOEL SCHULTE
COMMENT:
DESIGN:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DIMENSION PLAN	SHEET NUMBER C3.4

NE 10TH ST
(BY OTHERS)

NE HERITAGE DRIVE
(BY OTHERS)

SHEET LEGEND

R25' R25'
8" P.C.C.
6" P.C.C.
8.0' TRAIL (6" P.C.C.)
STOP LINE WHITE (SLW8) (TYP.)
37.0'
8.0'
41.4'
6' CHAIN LINK FENCE (TYP.)
8' X 30' DUGOUT
20.0'
424.9'
910.7'
5" P.C.C. SHARED USE PATH (TYP.)
8' CHAIN LINK FENCE (TYP.)
6' CHAIN LINK FENCE (TYP.)
36.0'
20.0'
382.4'
5" P.C.C. SHARED USE PATH (TYP.)
LEFT TURN ARROW WHITE (LTAW) (TYP.)
SOLID LANE LINE WHITE (SLW4) (TYP.)
24.9'
10' CHAIN LINK FENCE (TYP.)
30' TENSION NETTING
6' CHAIN LINK FENCE (TYP.)
10' CHAIN LINK FENCE (TYP.)
8' X 30' DUGOUT
30' TENSION NETTING
24.9'
24.9'
30' TENSION NETTING
8' X 30' DUGOUT
6' CHAIN LINK FENCE (TYP.)
6' CHAIN LINK FENCE (TYP.)
8' X 30' DUGOUT
5' OPENING (TYP.)
5" P.C.C. (TYP.)
5' OPENING (TYP.)
8' X 30' DUGOUT
8' X 30' DUGOUT
5' OPENING (TYP.)
4' WIDE SWINGING GATE (TYP.)
BOLLARD (TYP.)
R1.5'
5" P.C.C.
4' WIDE SWINGING GATE (TYP.)
4' WIDE SWINGING GATE (TYP.)
4' WIDE SWINGING GATE (TYP.)
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
54.0'
16.0' 16.0' 16.0'
3.0' 3.0'
BALL CONTROL NETTING (TYP.)
8' CHAIN LINK FENCE (TYP.)
6" P.C.C.
6' CHAIN LINK FENCE (TYP.)
GATE ARM
LOOP DETECTOR (TYP.)
R3'
NO CURB (FLUSH)
8.5'
8.0' TYP.
5.0' TYP.
20.0'
6.0'
POD #4
POD #4
POD #3
POD #3
PAINTED ACCESSIBLE PARKING SYMBOL (TYP.)
413.0'
424.9'
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
424.9'
442.4'
5" P.C.C. SHARED USE PATH (TYP.)
12' WIDE SWINGING GATE
12' WIDE SWINGING GATE
12' WIDE SWINGING GATE
CLASS "A" CURB & SIDEWALK
R30'
BOLLARD (TYP.)
R178.5'
NO CURB (FLUSH)
8.7'
R3'
(10) ACCESSIBLE PARKING SIGN ON BOLLARD
BALL CONTROL NETTING (TYP.)
BALL CONTROL NETTING (TYP.)
R15'
12.0'
INTEGRAL 6" STANDARD CURB (TYP.)
R137.5'
R20'
25.0'
R10'
NO CURB (FLUSH)
40.0'
CHANNELING LINE YELLOW (CHY8) (TYP.)
R162.5'
R38'
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
APPROXIMATE
(PRIOR TO THE COMPLETION OF PRO
FUTURE BUILDINGS, THE CONTRACTOR S
ARCHITECT TO MAKE CERTAIN FINAL
4' WIDE SWINGING GATE (TYP.)
24.0'
12.0'
R62'
8' X 40' DUGOUT
5' OPENING (TYP.)
4' WIDE SWINGING GATE (TYP.)
5.5'
REMOVABLE BOLLARDS: (5)
5" P.C.C. SHARED USE PATH (TYP.)
2.3'
8' X 30' DUGOUT
5' OPENING (TYP.)
5" P.C.C. SHARED USE PATH (TYP.)
4.0'
22.0'
GATE (BY OTHERS)
17.3'
40' TENSION NETTING
10' CHAIN LINK FENCE (TYP.)
6' CHAIN LINK FENCE (TYP.)
10' CHAIN LINK FENCE (TYP.)
30' TENSION NETTING
8' X 30' DUGOUT
6' CHAIN LINK FENCE (TYP.)
5' OPENING (TYP.)
6' CHAIN LINK FENCE (TYP.)
8' X 40' DUGOUT
APPROXIMATE FUTURE
424.9'
424.9'
382.4'

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DIMENSION SHEETS.DWG
DATE PLOTTED: 10/17/2022 4:39 PM
FILE DATE: 10/17/22
FILE BY: ERIC SCHULTE
COMMENT: DWG

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DIMENSION PLAN	SHEET NUMBER C3.3

NE HERITAGE DRIVE
(BY OTHERS)

PRIVATE ROAD

SHEET LEGEND

8.0' TRAIL (6" P.C.C.)

R25' R25'

8" P.C.C.
6" P.C.C.

EX. 8.0' SHARED USE PATH
(6" P.C.C.) (BY OTHERS)

DETECTABLE WARNING
(TYP.)

6' CHAIN LINK
FENCE (TYP.)

36.0'

20.0'

382.4'

5" P.C.C. SHARED
USE PATH (TYP.)

6' CHAIN LINK FENCE
(TYP.)

6' CHAIN LINK FENCE
(TYP.)

BALL CONTROL NETTING
(TYP.)

SYNTHETIC TURF
(REFER TO
MANUFACTURER'S
SPECIFICATIONS)

POD #3

360.3'

442.4'

12' WIDE SWINGING GATE

6' CHAIN LINK
FENCE (TYP.)

REFER TO ELECTRICAL PLAN

APPROXIMATE FUTURE BUILDING LOCATION
(PRIOR TO THE COMPLETION OF PROPOSED WORK SURROUNDING
FUTURE BUILDINGS, THE CONTRACTOR SHALL COORDINATE WITH THE
ARCHITECT TO MAKE CERTAIN FINAL BUILDING FOOTPRINTS ARE
ACCOUNTED FOR)

SYNTHETIC TURF
(REFER TO
MANUFACTURER'S
SPECIFICATIONS)

4' WIDE SWINGING
GATE (TYP.)

8' X 40'
DUGOUT

10' CHAIN LINK FENCE
(TYP.)

8' CHAIN LINK FENCE
(TYP.)

5' OPENING
(TYP.)

40' TENSION NETTING

8' X 40'
DUGOUT

6' CHAIN LINK FENCE
(TYP.)

382.4'

5" P.C.C.
SHARED USE
(TYP.)

24.9'

SHARED USE PATH

CLASS "A"
CURB &
SIDEWALK

NO CURB
(FLUSH)

CLASS "A"
CURB &
SIDEWALK

GATE
(BY OTHERS)

CLASS A SIDEWALK

9.5' 18.0' 9.5'

17.0'

R3'

R20'

R10'

25.0'

25.2'

8.0'

16.5'

9.5'

CLASS "A"
CURB &
SIDEWALK

SOLID LANE
LINE WHITE
(SLW4)
(TYP.)

INTEGRAL 6"
STANDARD CURB
(TYP.)

333.0'

8.0'

16.5'

306.0' 324.0'

20.0'

45.5'

18.0'

6" P.C.C.
(TYP.)

10.2'

BOLLARD (TYP.)

R15'

R25'

12.0'

37.0'

R62'

CHANNELING
LINE YELLOW
(CHY8) (TYP.)

REMOVABLE
BOLLARDS (5)

BOLLARD: (TYP.)

NO CURB
(FLUSH)

(8) ACCESSIBLE PARKING
SIGN ON BOLLARD

5" P.C.C. SHARED
USE PATH (TYP.)

382.4'

20'

INTEGRAL 6"
STANDARD CURB
(TYP.)

216.0'

198.0'

18.0'

6" P.C.C.
(TYP.)

SOLID LANE LINE
WHITE (SLW4)
(TYP.)

PAINTED ACCESSIBLE
PARKING SYMBOL
(TYP.)

8.0' 5.0' 5.0' 5.0'

8.5' 16.0' 16.0' 16.0'

8.0'

5.0'

180.0'

16.5'

10.6'

DUMPSTER
ENCLOSURE
(8" P.C.C.)

CLASS A SIDEWALK

EX. X" P.C.C.
(VERIFY)

6" P.C.C.

EX. 8.0' SHARED USE PATH
(6" P.C.C.)

INTEGRAL 6"
STANDARD CURB
(TYP.)

25.0'

R10'

4.5'

R3'

EX. 8.0' SHARED USE PATH
(6" P.C.C)

10.0' TRAIL
(6" P.C.C)

135.0'

10.0'

CLASS "A"
CURB &
SIDEWALK

INTEGRAL 6"
STANDARD CURB
(TYP.)

OWNER:
HOPE K FARM

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DIMENSION SHEETS.DWG
FILE DATE: 10/17/22
DATE PLOTTED: 10/17/2022 4:39 PM
PLOTTED BY: CHRIS SCHULTE
COMMENT: DSC

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DIMENSION PLAN	SHEET NUMBER C3.5

382.4'
46.0'
382.4'
8' CHAIN LINK FENCE (TYP.)
8' X 40' DUGOUT
5" P.C.C. SHARED USE PATH (TYP.)
24.9'
40' TENSION NETTING
4' WIDE SWINGING GATE (TYP.)
8' X 40' DUGOUT
10' CHAIN LINK FENCE (TYP.)
6' CHAIN LINK FENCE (TYP.)
6' CHAIN LINK FENCE (TYP.)
4' WIDE SWINGING GATE (TYP.)
5' OPENING (TYP.)
10' CHAIN LINK FENCE (TYP.)
40' TENSION NETTING
24.9'
8' X 40' DUGOUT
5' OPENING (TYP.)
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
5' OPENING (TYP.)
8' X 40' DUGOUT
8' CHAIN LINK FENCE (TYP.)
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
20.0'
6' CHAIN LINK FENCE (TYP.)
POD #2
POD #1
442.4'
12' WIDE SWINGING GATE
12' WIDE SWINGING GATE
40.0'
BALL CONTROL NETTING (TYP.)
442.4'
BALL CONTROL NETTING (TYP.)
470.7'
442.4'
12' WIDE SWINGING GATE
BALL CONTROL NETTING (TYP.)
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
SYNTHETIC TURF (REFER TO MANUFACTURER'S SPECIFICATIONS)
4' WIDE SWINGING GATE (TYP.)
8' CHAIN LINK FENCE (TYP.)
5' OPENING (TYP.)
10' CHAIN LINK FENCE (TYP.)
8' X 30' DUGOUT
30' TENSION NETTING
5' OPENING (TYP.)
8' X 30' DUGOUT
24.9'
6' CHAIN LINK FENCE (TYP.)
382.4'
20.0'
5" P.C.C. SHARED USE PATH (TYP.)
43.5'
245.0'
147.8'
45.0'
APPROXIMATE FUTURE BUILDING LOCATION
(PRIOR TO THE COMPLETION OF PROPOSED WORK SURROUNDING FUTURE BUILDINGS, THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT TO MAKE CERTAIN FINAL BUILDING FOOTPRINTS ARE ACCOUNTED FOR)
REV
5" P.C.C. SHARED USE PATH (TYP.)
382.4'
20.0'
6' CHAIN LINK FENCE (TYP.)
6' CHAIN LINK FENCE (TYP.)
SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)
SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)
SPECIAL FLOOD HAZARD AREAS REGULATORY FLOODWAY (TYP.)
EX 8.0 PUBLIC TRAIL (PROTECT)
8.0' TRAIL (6" P.C.C)
SHEET LEGEND
ST
SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DIMENSION SHEETS.DWG
FILE DATE: 10/11/2022
PLOTTED BY: ERIC SCHULTE
DATE PLOTTED: 10/11/2022 4:39 PM
COMMENT:
DESC:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DIMENSION PLAN	SHEET NUMBER C3.6

NE HERITAGE DRIVE

NE 10TH STREET

NE 2ND COURT

PRIVATE ROAD

NE LITTLE BEAVER ST

11TH STREET

LITTLE BEAVER TRIBUTARY

TRIBUTARY OF LITTLE BEAVER CREEK

POD #1

POD #2

POD #3

POD #4

POD #5

POD #6

SOIL BORING #1

SOIL BORING #2

SOIL BORING #3

SOIL BORING #4

SOIL BORING #5

SOIL BORING #6

SOIL BORING #7

SOIL BORING #8

SOIL BORING #9

SOIL BORING #10

SOIL BORING #11

SOIL BORING #12

SOIL BORING #13

SOIL BORING #14

SOIL BORING #15

SOIL BORING #16

SOIL BORING #17

SOIL BORING #18

SOIL BORING #19

SOIL BORING #20

SOIL BORING #21

SOIL BORING #22

SOIL BORING #23

SOIL BORING #24

SOIL BORING #25

SOIL BORING #26

SOIL BORING #27

SOIL BORING #28

SOIL BORING #29

OUTLOT Y
OWNER:
CITY OF GRIMES

OUTLOT Z
OWNER:
CITY OF GRIMES

OWNER:
HOPE K FARMS LLC

OWNER:
CITY OF GRIMES

OWNER:
LAWRENCE AND MELANIE VANWINKLE

OWNER:
JASON M AND KATE M PRIME

OWNER:
ELIZABETH BROWN AND MILTON KRUSTEN

OWNER:
BOWS AND TOMMY ONG

OWNER:
BETHANY L AND JOHN C ENVISION

OWNER:
RYAN AND REBECCA BURGER

OWNER:
KATHRYN ROBBINS LIVING TRUST

OWNER:
GARY AND LORETTA GRAEBER

OWNER:
JOSEPH ELLSWORTH AND JILL WERNIMONT

OWNER:
AMY L AND ANTHONY J NELSON

OWNER:
LAURA AND MICHAEL GORMAN

OWNER:
RUSSELL AND PATRICIA TOSSIN

OWNER:
COURTNEY I RUMMEL

OWNER:
DENISE I MORTON

OWNER:
JOHNSON DEVELOPMENT

OWNER:
SPLASH EXPRESS

N

SCALE
0' 50' 100' 200'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-GRADING SHEETS.DWG
FILE DATE: 10/20/22
PLOTTED BY: JOSH SCHULTE
DATE PLOTTED: 10/31/2022 4:40 PM
COMMENT:
DWG:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE GRADING PLAN	SHEET NUMBER C4.0

NE HERITAGE DRIVE

NE 10TH ST

PROJECT AND GRADING LIMITS (TYP.)

SITE BOUNDARY (TYP.)

REFER TO SHEET C4.8 DETAIL 'B' FOR SIDEWALK & INTERSECTION ELEVATIONS

REFER TO SHEET C4.8 DETAIL 'A' FOR SIDEWALK & INTERSECTION ELEVATIONS

REFER TO SHEET C4.9 DETAIL 'D' FOR SIDEWALK & INTERSECTION ELEVATIONS

SPECIAL FLOOD HAZARD AREA ZONE AE

SOIL BORING #3

SOIL BORING #4

SOIL BORING #5

SOIL BORING #9

SHEET LEGEND

POD #1 POD #2 POD #3 POD #4 POD #5 POD #6

POD #4

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-GRADING SHEETS.DWG
FILE DATE: 10/10/22
DATE PLOTTED: 10/11/2022 4:40 PM
PLOTTED BY: JOSE SCHULTE
COMMENT:
DESC:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE GRADING PLAN	SHEET NUMBER C4.1

GRADING LIMITS (TYP.)

PROJECT LIMITS AND SITE BOUNDARY (TYP.)

REFER TO SHEET C4.9 DETAIL 'E' FOR SIDEWALK & INTERSECTION ELEVATIONS

SOIL BORING #2

SOIL BORING #7

SOIL BORING #8

SOIL BORING #6

SOIL BORING #1

SOIL BORING #11

SOIL BORING #10

POD #6

POD #5

SHEET LEGEND

POD #4 POD #3 POD #6 POD #5 POD #2 POD #1

PROJECT AND GRADING LIMITS AND SITE BOUNDARY (TYP.)

SPECIAL FLOOD HAZARD AREAS ZONE AE

PROJECT LIMIT (TYP.)

SITE BOUNDARY (TYP.)

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086--GRADING SHEETS.DWG
PLOT DATE: 10/10/22
PLOTTED BY: DOUG SCHULTE

DATE PLOTTED: 10/11/2022 4:40 PM
COMMENT:
SCALE: 1" = 30'

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE GRADING PLAN	SHEET NUMBER C4.2

NE 10TH ST

NE HERITAGE DRIVE

PROJECT AND GRADING LIMITS (TYP.)

SITE BOUNDARY (TYP.)

PROJECT AND GRADING LIMITS AND SITE BOUNDARY (TYP.)

SHEET LEGEND

POD #4 | POD #3 | POD #6 | POD #5 | POD #2 | POD #1

SOIL BORING #15

SOIL BORING #21

SOIL BORING #5

SOIL BORING #14

SOIL BORING #20

SOIL BORING #9

SOIL BORING #13

SOIL BORING #19

POD #4

POD #3

15'ST

12"ST

SCALE 0' 15' 30' 60'

NO.	REVISIONS	BY	DATE

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-GRADING SHEETS.DWG
DATE PLOTTED: 10/11/2022 4:40 PM
PLOT SCALE: 1=20'
PLOT BY: SCHILLT

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	GRADING PLAN	SHEET NUMBER	C4.3

SOIL BORING #14

SOIL BORING #19

SHEET LEGEND

POD #4 | POD #3 | POD #6 | POD #5 | POD #2 | POD #1

POD #5

SOIL BORING #11

POD #5

SOIL BORING #12

POD #2

SOIL BORING #17

POD #2

SOIL BORING #18

SOIL BORING #10

SOIL BORING #16

GRADING LIMITS (TYP.)

SITE BOUNDARY (TYP.)

PROJECT LIMIT (TYP.)

SPECIAL FLOOD HAZARD AREAS REGULATORY FLOODWAY (TYP.)

SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)

PROJECT LIMITS (TYP.)

SITE BOUNDARY AND GRADING LIMITS

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

COMMENT:

DESIGN:

DATE PLOTTED: 10/11/2022 4:40 PM

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-GRADING SHEETS.DWG
FILE DATE: 10/10/22
PLOTTED BY: MICHAEL TE

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE GRADING PLAN	SHEET NUMBER C4.4

NE HERITAGE DRIVE

REFER TO SHEET C4.8 DETAIL 'C' FOR SIDEWALK & INTERSECTION ELEVATIONS

PROJECT, GRADING LIMITS AND SITE BOUNDARY (TYP.)

SITE BOUNDARY (TYP.)

PROJECT AND GRADING LIMITS (TYP.)

PROJECT AND GRADING LIMITS (TYP.)

PROJECT LIMITS (TYP.)

PROJECT AND GRADING LIMITS (TYP.)

SITE BOUNDARY (TYP.)

POD #3

SOIL BORING #19

SOIL BORING #20

SOIL BORING #21

SOIL BORING #22

SOIL BORING #26

SOIL BORING #27

SOIL BORING #28

SOIL BORING #29

SHEET LEGEND

POD #4 | POD #3 | POD #6 | POD #5 | POD #2 | POD #1

N

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\LDWG\SITE PLAN\2202086-GRADING SHEETS.DWG
FILE DATE: 10/7/22
PLOTTED BY: NICK SCHULTE
DATE PLOTTED: 10/11/2022 4:40 PM
COMMENT:
DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE

POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	GRADING PLAN	SHEET NUMBER	C4.5

SOIL BORING #19

SOIL BORING #24

SOIL BORING #25

SOIL BORING #17

SOIL BORING #18

SOIL BORING #23

POD #1

POD #2

PROJECT AND GRADING LIMITS (TYP.)

SITE BOUNDARY (TYP.)

GRADING & PROJECT LIMITS (TYP.)

RETAINING WALL

SPECIAL FLOOD HAZARD AREAS ZONE AE

SPECIAL FLOOD HAZARD AREAS FLOODWAY

SITE BOUNDARY (TYP.)

PROJECT LIMITS (TYP.)

SITE BOUNDARY AND GRADING LIMITS (TYP.)

SITE BOUNDARY AND GRADING LIMITS (TYP.)

SHEET LEGEND

POD #4 | POD #3 | POD #6 | POD #5 | POD #2 | POD #1

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE | POLK COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE GRADING PLAN | SHEET NUMBER C4.6

FILE: H:\2022\2202086\LIVE\SITE PLAN\2202086-GRADING SHEETS.DWG
FILE DATE: 10/10/22
PLOT DATE: 10/11/2022 4:40 PM
PLOTTED BY: SCHULTE
COMMENT:
DESCRIPTION:

OUTLOT Z
OWNER:
CITY OF GRIMES

GRADING & PROJECT LIMITS (TYP.)

SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)

SPECIAL FLOOD HAZARD AREAS ZONE AE

SPECIAL FLOOD HAZARD AREAS FLOODWAY

SHEET LEGEND

POD #4 | POD #3 | POD #6 | POD #5 | POD #2 | POD #1

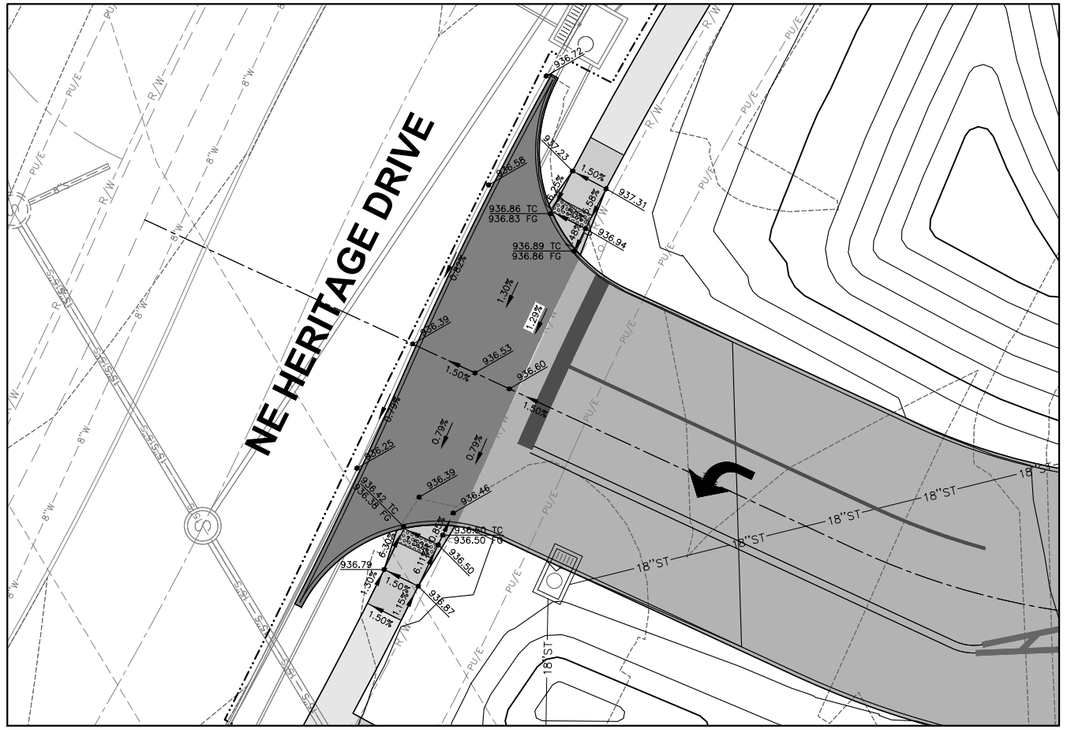
SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

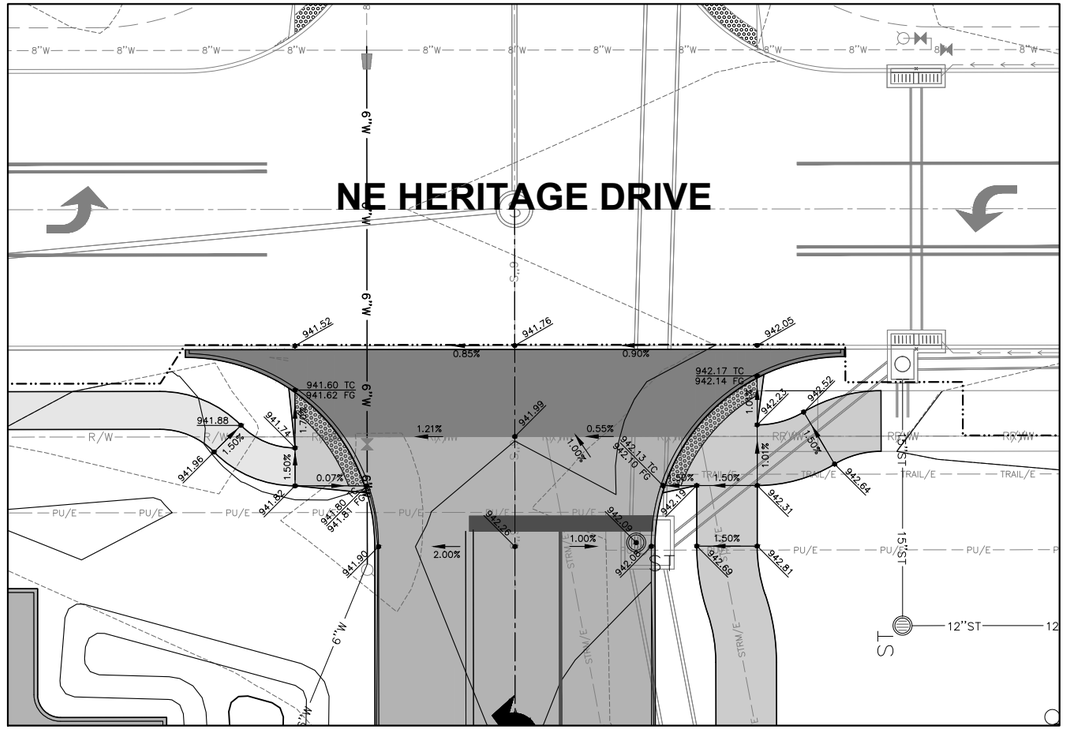
COMMENT:

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-GRADING SHEETS.DWG
FILE DATE: 10/10/22
DATE PLOTTED: 10/11/2022 4:40 PM
PLOTTED BY: Brian Pollitt

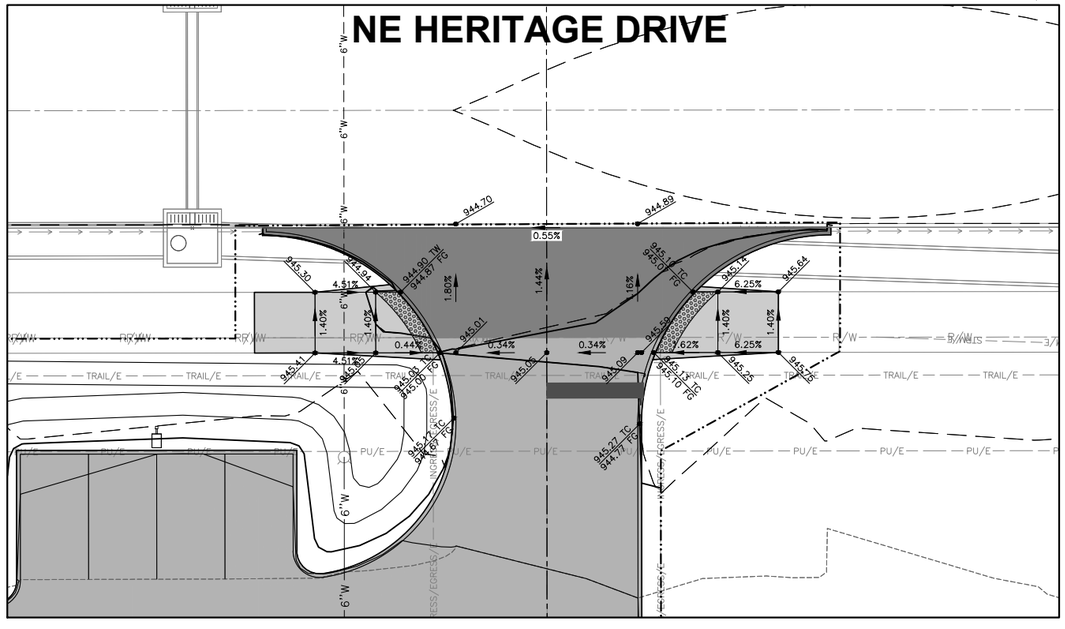
DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE GRADING PLAN	SHEET NUMBER C4.7



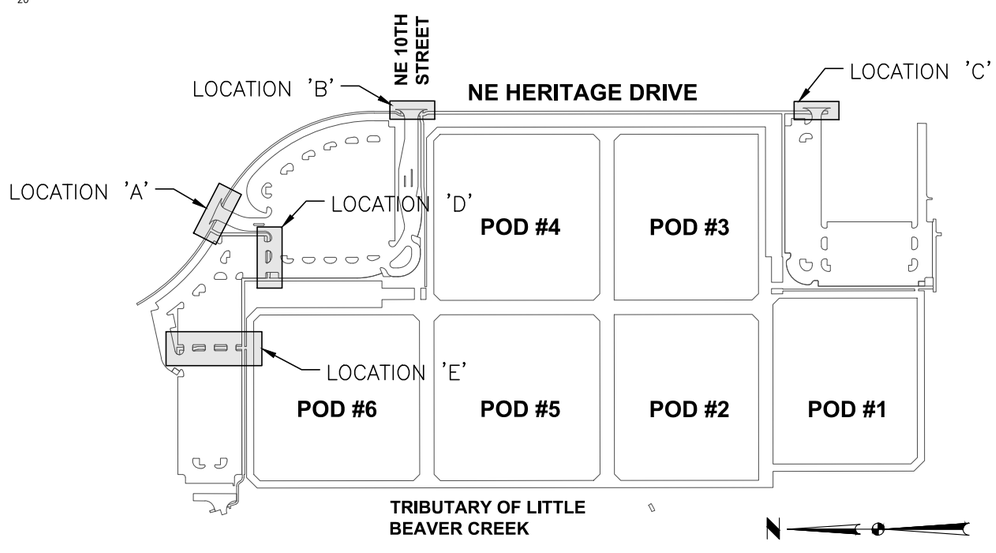
LOCATION 'A'



LOCATION 'B'



LOCATION 'C'



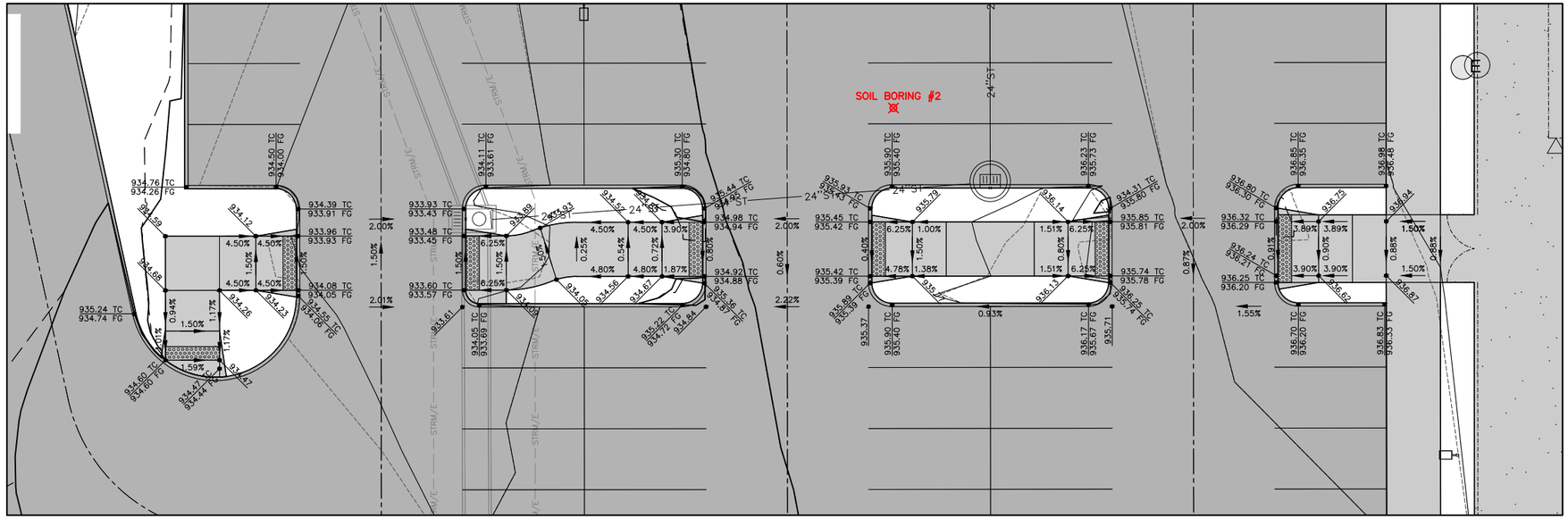
SHEET LEGEND

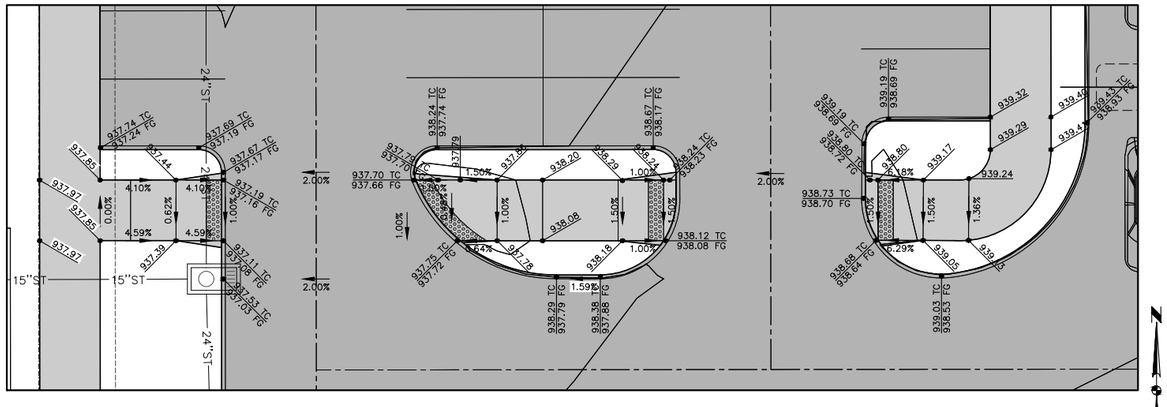
NOT TO SCALE

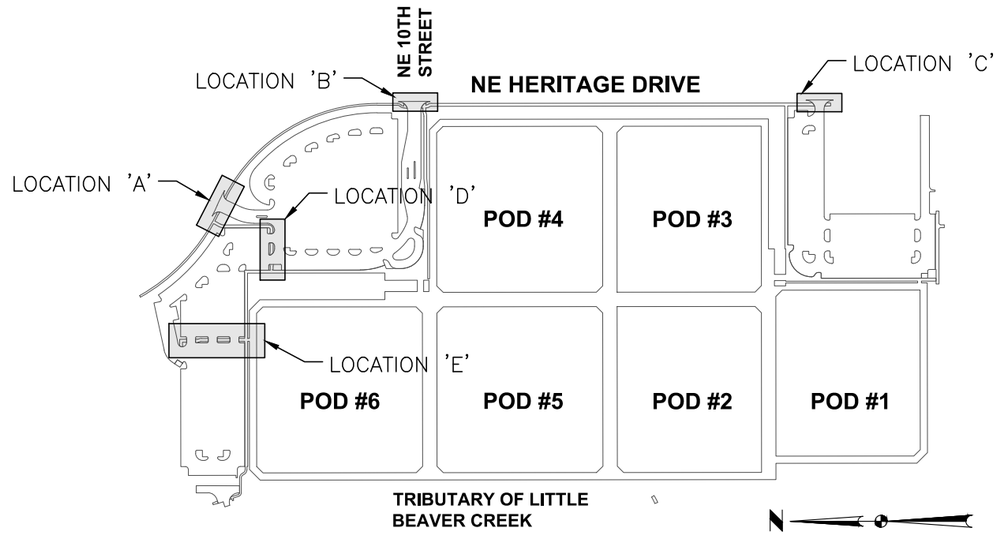
NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-GRADING SHEETS.DWG
DATE PLOTTED: 10/11/2022 4:41 PM
PLOT DATE: 10/10/22
PLOTTED BY: JOSH SCULLY
COMMENT: DRC

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	GRADING PLAN	SHEET NUMBER	C4.8







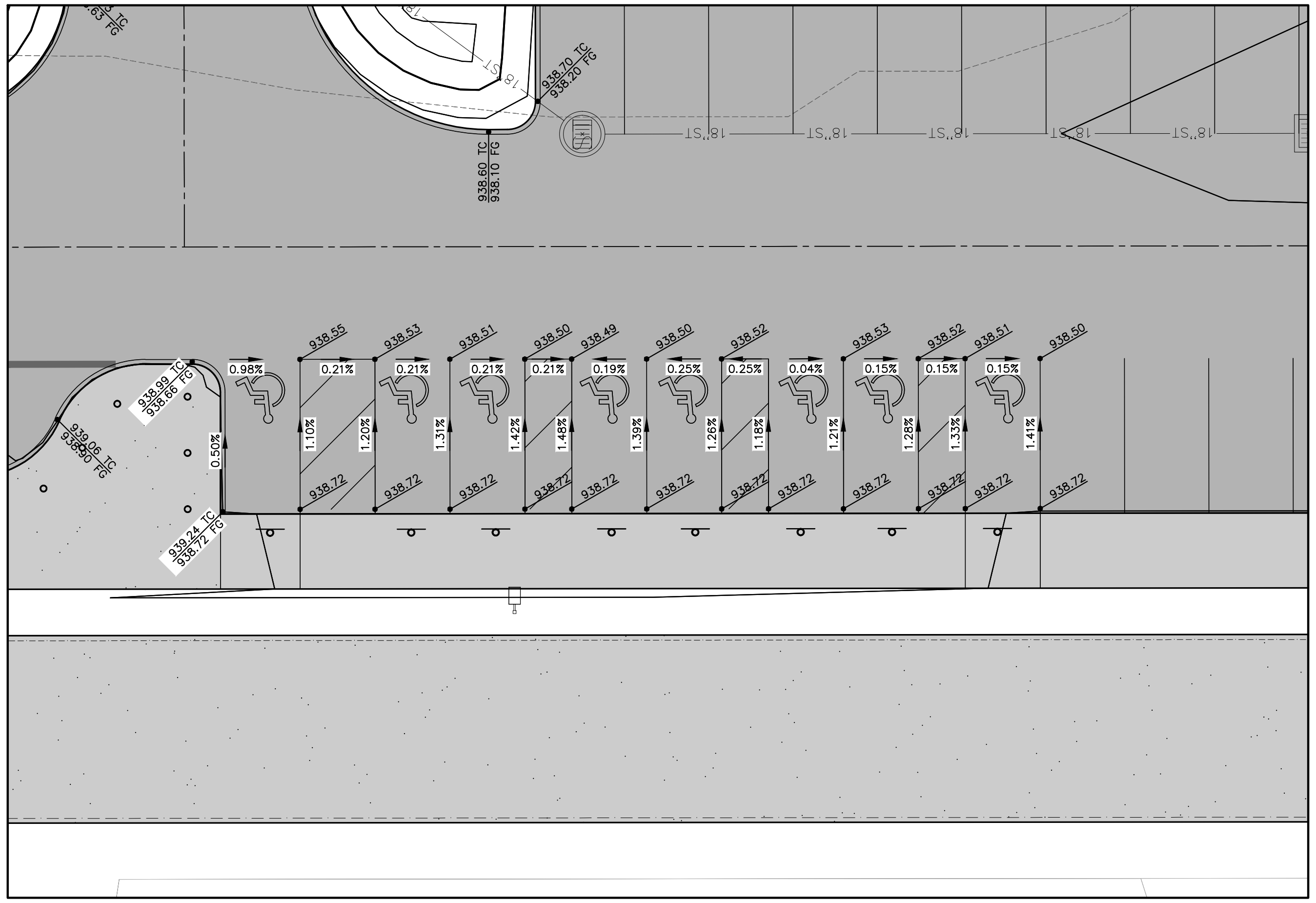
SHEET LEGEND

NOT TO SCALE

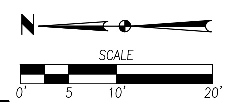
NO.	REVISIONS	DATE	BY

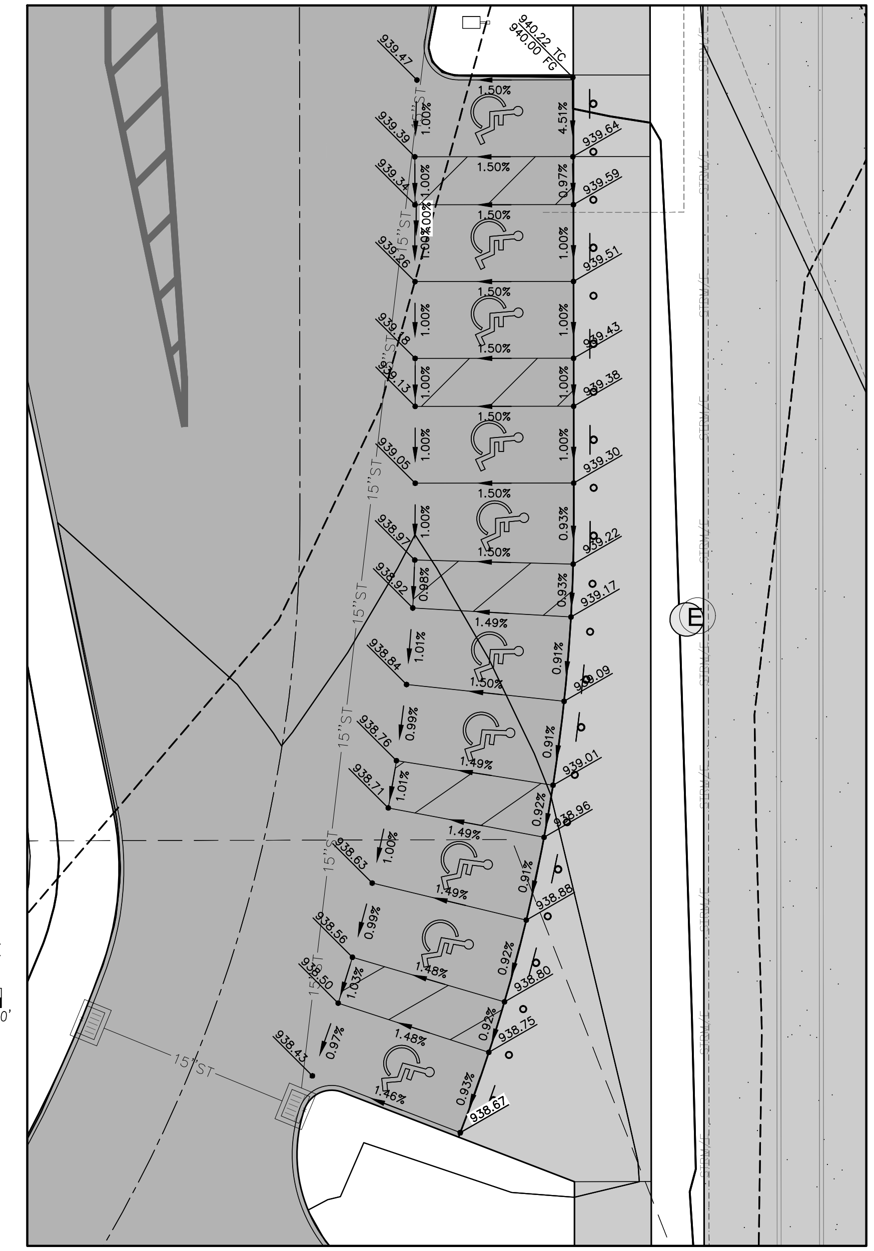
FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-GRADING SHEETS.DWG
FILE DATE: 10/10/22 DATE PLOTTED: 10/11/2022 4:41 PM COMMENT: DWG
PLOTTED BY: ERIC SCHULTE TOPIC:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	GRADING PLAN	SHEET NUMBER	C4.9

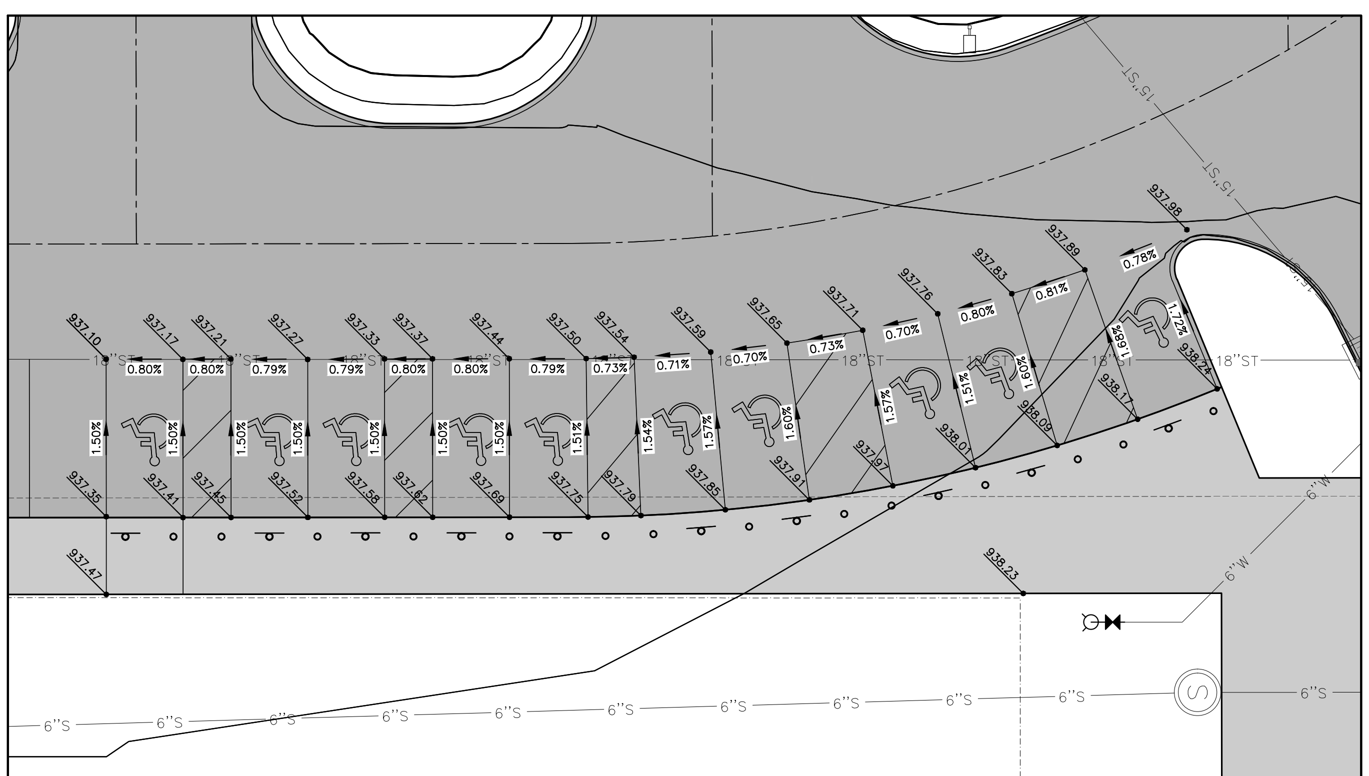


LOCATION 'A'

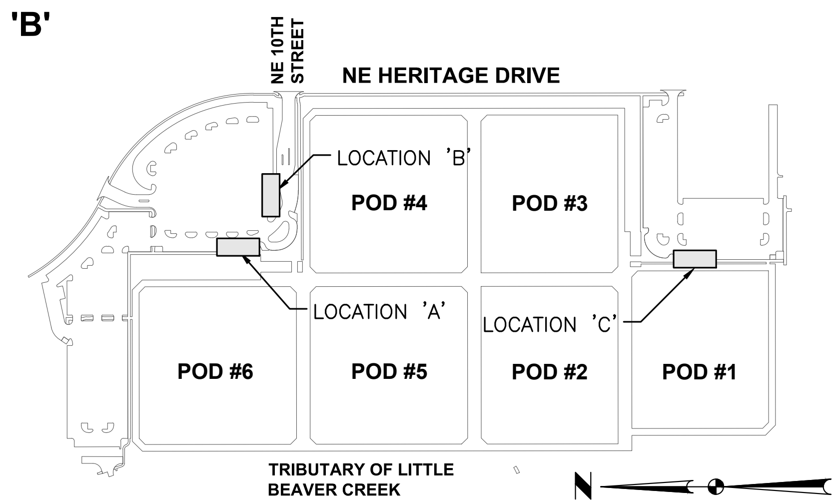




LOCATION 'B'



LOCATION 'C'



SHEET LEGEND

NOT TO SCALE

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-GRADING SHEETS.DWG
FILE DATE: 10/10/22 DATE PLOTTED: 10/11/2022 4:41 PM COMMENT:
PLOTTED BY: ERIC SCHULTE TECH: ENG:

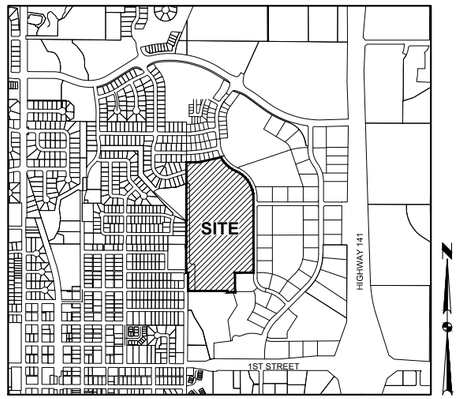
DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE GRADING PLAN	SHEET NUMBER C4.10

GRIMES PLEX

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



GRIMES, IOWA

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	8,411
2	FILTER SOCK	LF	2,406
3	SILT FENCE CHECK DAMS	LF	372
4	SEEDING, FERTILIZING, AND MULCHING	AC	52.7
5	INLET PROTECTION DEVICES	EA	44
6	CONCRETE WASHOUT	EA	2

NOTES:

1. IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
2. DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
3. STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 DIRECTLY INTO AN UNNAMED TRIBUTARY OF LITTLE BEAVER CREEK

TOTAL AREA DISTURBED TO DISCHARGE POINT	29.7 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	106,920 CU FT
VOLUME PROVIDED IN FILTER SOCK (822 LF @ 2.0 CU FT/LF OF SOCK)	1,644 CU FT
VOLUME PROVIDED IN SILT FENCE (3,346 LF @ 4.5 CU FT/LF OF FENCE)	15,057 CU FT
VOLUME PROVIDED IN SILT FENCE CHECK DAM (244 LF @ 4.5 CU FT/LF OF FENCE)	1,098 CU FT
VOLUME PROVIDED IN EX. POND #1	282,419 CU FT
TOTAL VOLUME PROVIDED	300,218 CU FT

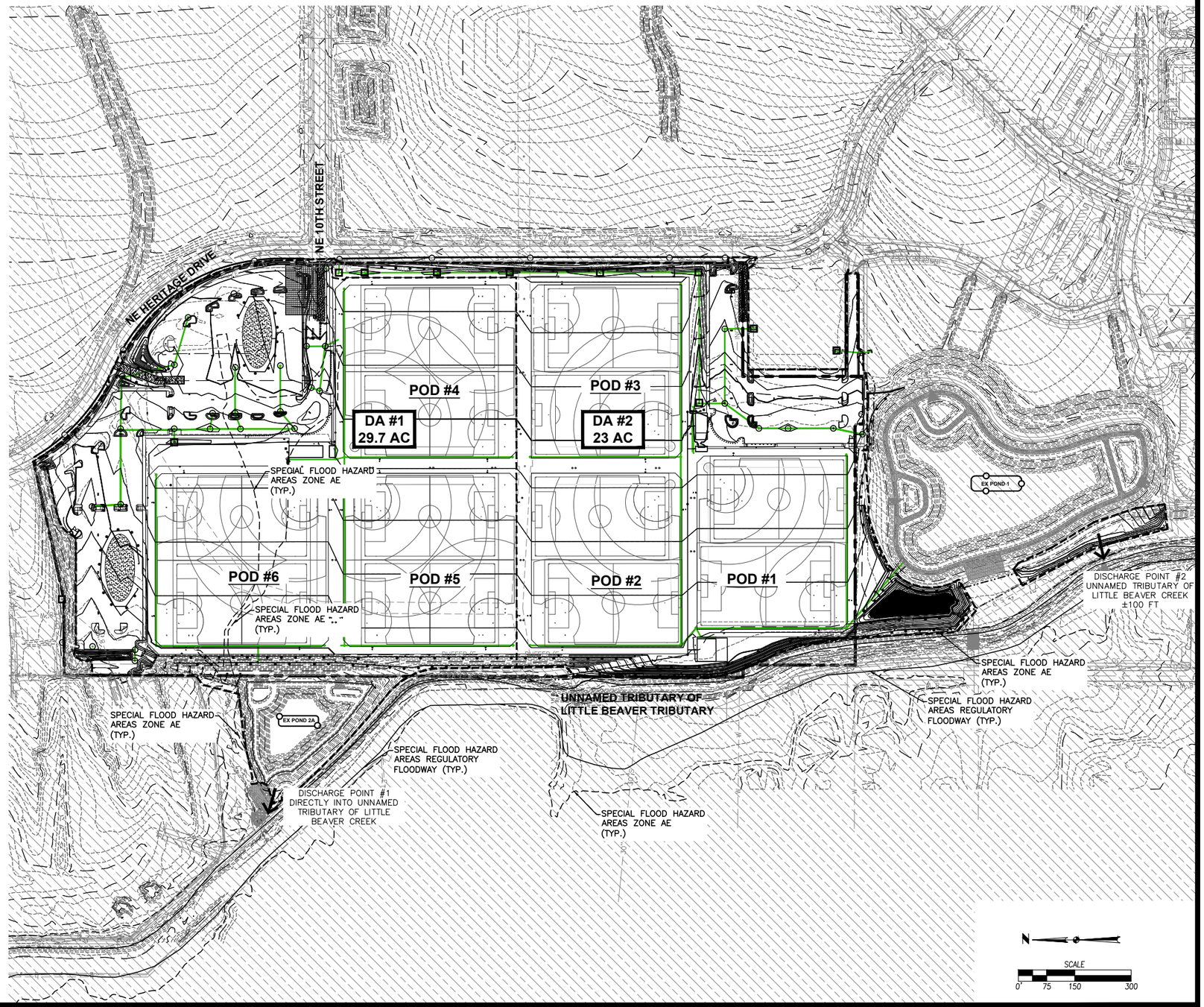
DISCHARGE POINT #2 TO AN UNNAMED TRIBUTARY OF LITTLE BEAVER CREEK ±100 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	23 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	82,800 CU FT
VOLUME PROVIDED IN FILTER SOCK (1,584 LF @ 2.0 CU FT/LF OF SOCK)	3,168 CU FT
VOLUME PROVIDED IN SILT FENCE (5,066 LF @ 4.5 CU FT/LF OF FENCE)	22,797 CU FT
VOLUME PROVIDED IN SILT FENCE CHECK DAM (174 LF @ 4.5 CU FT/LF OF FENCE)	783 CU FT
VOLUME PROVIDED IN EX. POND #2	731,071 CU FT
TOTAL VOLUME PROVIDED	757,819 CU FT

SWPPP LEGEND

DRAINAGE ARROW X.XX %
GRADING LIMITS
FILTER SOCK
SILT FENCE
SILT FENCE CHECK DAM
INLET PROTECTION
CONCRETE WASHOUT PIT

AREA TO BE SEEDED
UNDISTURBED AREA
RIP-RAP
GRAVEL ENTRANCE
STAGING AREA
EXISTING POND EX POND X



NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-EROSION CONTROL SHEETS.DWG
FILE DATE: 10/10/22 DATE PLOTTED: 10/11/2022 4:42 PM
COUNTY: POLK SCALE: 1"=50' TECH: COMMENT: ENG:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE EROSION AND SEDIMENT CONTROL PLAN	SHEET NUMBER C4.11

SHEET LEGEND

POD #4 | POD #3 | POD #6 | POD #5 | POD #2 | POD #1

INLET PROTECTION (TYP.)

FILTER SOCK (TYP.)

PROPOSED STAGING AREA (VERIFY EXACT LOCATION WITH CONTRACTOR)

GRAVEL CONSTRUCTION EXIT 3" CRUSHED STONE @ 6" MINIMUM DEPTH & 150' MINIMUM LENGTH

NE HERITAGE DRIVE

INLET PROTECTION (TYP.)

POTENTIAL TOPSOIL STOCKPILE LOCATION

CONCRETE WASH PIT

INLET PROTECTION (TYP.)

GRADING LIMITS (TYP.)

DA #1
29.7 AC

GRAVEL CONSTRUCTION EXIT 3" CRUSHED STONE @ 6" MINIMUM DEPTH & 150' MINIMUM LENGTH

SILT FENCE (TYP.)

SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)

POD #4

INLET PROTECTION (TYP.)

FILTER SOCK (TYP.)

PROPERTY BOUNDARY (TYP.)

GRADING LIMITS (TYP.)

SILT FENCE (TYP.)

INLET PROTECTION (TYP.)

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\LDWG\SITE PLAN\2202086-EROSION CONTROL SHEETS.DWG
FILE DATE: 10/10/22
DATE PLOTTED: 10/11/2022 4:42 PM
PLOTTED BY: MICHAEL ECHELLE
COMMENT: D50

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE EROSION AND SEDIMENT CONTROL PLAN	SHEET NUMBER C4.12

GRADING LIMITS (TYP.)

INLET PROTECTION (TYP.)

PROPERTY BOUNDARY (TYP.)

SILT FENCE (TYP.)

POTENTIAL TOPSOIL STOCKPILE LOCATION

FILTER SOCK (TYP.)

INLET PROTECTION (TYP.)

SITE BOUNDARY

SILT FENCE CHECK DAM (TYP.)

GRADING LIMITS (TYP.)

SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)

DA #1
29.7 AC

POD #6

SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)

SILT FENCE (TYP.)

PROPERTY BOUNDARY (TYP.)

PROPERTY BOUNDARY (TYP.)

POD #5

SHEET LEGEND

POD #4 | POD #3 | POD #6 | POD #5 | POD #2 | POD #1

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: I:\2022\2202086\DWG\SITE PLAN\2202086-EROSION CONTROL SHEETS.DWG
PLOT DATE: 10/20/22
PLOTTED BY: SCHULZ

DATE PLOTTED: 10/11/2022 4:42 PM
COMMENT:
TITLE:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE EROSION AND SEDIMENT CONTROL PLAN	SHEET NUMBER	C4.13

GRADING LIMITS (TYP.)

INLET PROTECTION (TYP.)

FILTER SOCK (TYP.)

PROPERTY BOUNDARY (TYP.)

SILT FENCE (TYP.)

FILTER SOCK (TYP.)

GRAVEL CONSTRUCTION EXIT
3" CRUSHED STONE
@ 6" MINIMUM DEPTH
& 150' MINIMUM LENGTH

CONCRETE WASH PIT

INLET PROTECTION (TYP.)

POD #4

POD #3

DA #1
29.7 AC

DA #2
23 AC

SHEET LEGEND

POD #4 | POD #3
POD #6 | POD #5 | POD #2 | POD #1

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-EROSION CONTROL SHEETS.DWG
DATE PLOTTED: 10/11/2022 4:42 PM
DATE: 10/10/22
SCALE: 1" = 60' - 0"
DESIGN BY: RSC
DRAWN BY: RSC
CHECKED BY: SCHULTE
COMMENT:
DISC:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE EROSION AND SEDIMENT CONTROL PLAN	SHEET NUMBER C4.14

SHEET LEGEND

POD #4 | POD #3 | POD #6 | POD #5 | POD #2 | POD #1

POD #5

POD #2

DA #1
29.7 AC

DA #2
23 AC

SILT FENCE (TYP.)

PROPERTY BOUNDARY (TYP.)

SPECIAL FLOOD HAZARD AREAS REGULATORY FLOODWAY (TYP.)

GRADING LIMITS (TYP.)

SPECIAL FLOOD HAZARD AREAS ZONE AE (TYP.)

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-EROSION CONTROL SHEETS.DWG
FILE DATE: 10/10/22
PLOTTED BY: MATT WILLIS
DATE PLOTTED: 10/11/2022 4:42 PM
COMMENT:
DWG:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE EROSION AND SEDIMENT CONTROL PLAN	SHEET NUMBER C4.15

PROPERTY BOUNDARY (TYP.)

FILTER SOCK (TYP.)

INLET PROTECTION (TYP.)

FILTER SOCK (TYP.)

SILT FENCE CHECK DAMS (TYP.)

CONCRETE WASH PIT

POD #3

DA #2
23 AC

PROPERTY BOUNDARY (TYP.)

SILT FENCE DITCH CHECKS (TYP.)

FILTER SOCK (TYP.)

INLET PROTECTION (TYP.)

FILTER SOCK (TYP.)

INLET PROTECTION (TYP.)

GRADING LIMITS (TYP.)

OWNER:
HOPE K
FARMS
LLC

SHEET LEGEND

POD #4 | POD #3 | POD #6 | POD #5 | POD #2 | POD #1

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\LDWG\SITE PLAN\2202086-EROSION CONTROL SHEETS.DWG
FILE DATE: 10/10/22
PLOTTED BY: Ryan Schulte
DATE PLOTTED: 10/11/2022 4:42 PM
COMMENT:
DESIGN:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE EROSION AND SEDIMENT CONTROL PLAN	SHEET NUMBER C4.16

DA #2
23 AC

POD #1

POD #2

SHEET LEGEND

POD #4 | POD #3 | POD #6 | POD #5 | POD #2 | POD #1

GRADING LIMITS (TYP.)

RIP RAP (CLASS E)

FILTER SOCK CHECK DAM (TYP)

POTENTIAL TOPSOIL STOCKPILE LOCATION

SILT FENCE (TYP.)

SPECIAL FLOOD HAZARD AREAS REGULATORY FLOODWAY (TYP.)

PROPERTY BOUNDARY (TYP.)

SILT FENCE (TYP.)

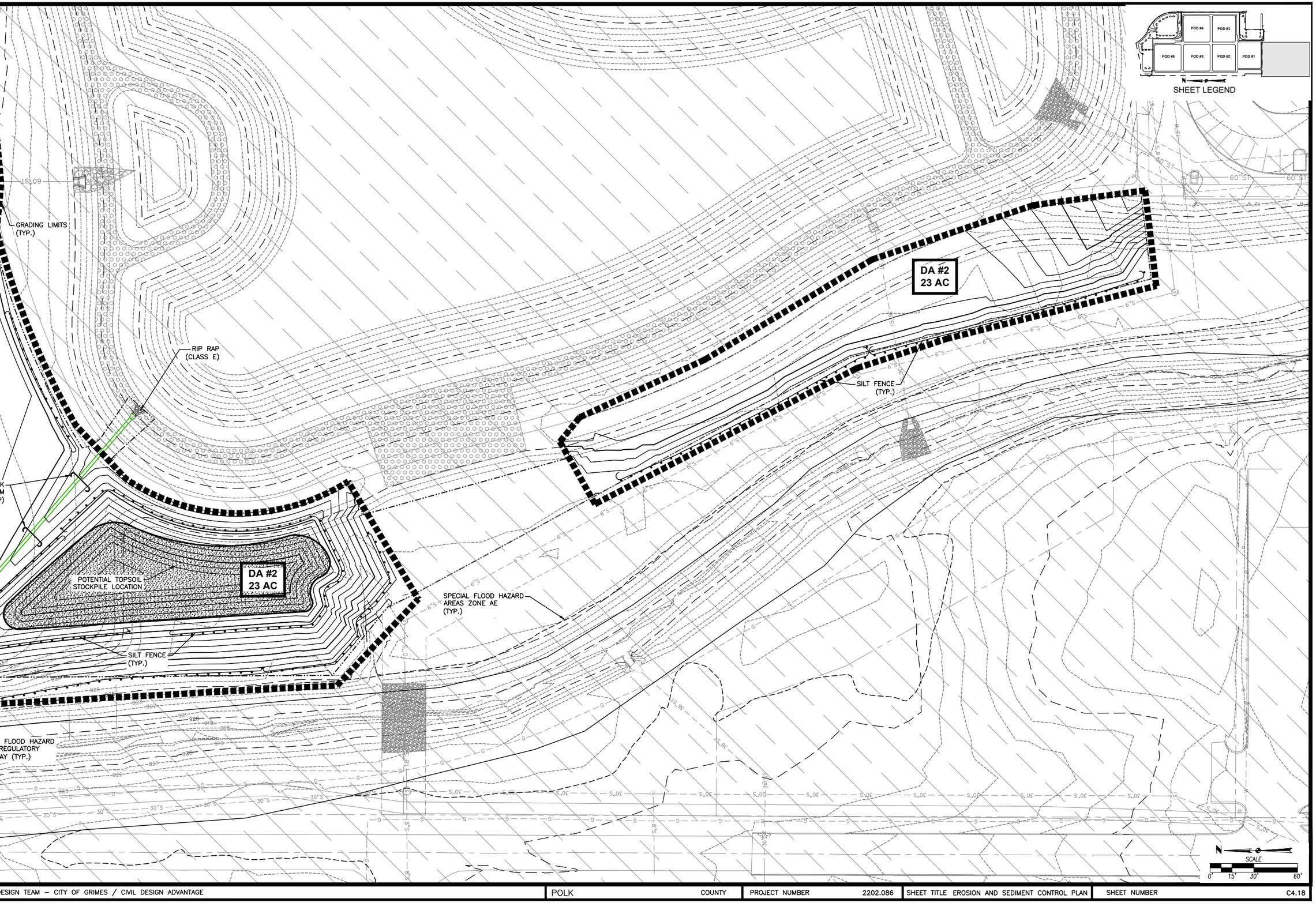
GRADING LIMITS (TYP.)

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-EROSION CONTROL SHEETS.DWG
FILE DATE: 10/10/22
PLOTTED BY: RICHARD HITT
DATE PLOTTED: 10/11/2022 4:42 PM
COMMENT:
DESC:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE EROSION AND SEDIMENT CONTROL PLAN	SHEET NUMBER C4.17



NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-EROSION CONTROL SHEETS.DWG
DATE PLOTTED: 10/11/2022 4:42 PM
FILE DATE: 10/10/22
PLOTTED BY: BRIAN SCHULTE
COMMENT:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE EROSION AND SEDIMENT CONTROL PLAN	SHEET NUMBER C4.18

NE 10TH STREET

NE HERITAGE DRIVE

PRIVATE ROAD

NE 2ND COURT

NE 12TH STREET

NE LITTLE BEAVER ST

POD #4

POD #3

POD #6

POD #5

POD #2

POD #1

OUTLOT Z
OWNER:
CITY OF GRIMES

OUTLOT Y
OWNER:
CITY OF GRIMES

SCALE
0' 50' 100' 200'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\220208\DWG\SITE PLAN\220208-UTILITY SHEETS.DWG
PLT DATE: 10/10/22
PLOTTED BY: Chris Schuiteman
DATE PLOTTED: 10/11/2022 4:43 PM
COMMENT:
TYPE:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	UTILITY PLAN	SHEET NUMBER	C5.0

NE HERITAGE DRIVE

NE 10TH S

SHEET LEGEND

EX ST-21
SW-506 INTK
TC=940.84
FL 15" (E)=935.21
FL 15" (N)=935.11

EX ST-62
SW-506 INTK
TC=942.75
FL 15" (E)=937.92
FL 15" (S)=935.34
FL 15" (W)=935.45
FL 15" (NW)=935.24
FL 6" (S)=938.25

REMOVE TEMPORARY BLOW OFF HYDRANT & CONNECT WATER MAIN

L-40
32 LF OF
15" RCP
@ 1.00%

ST-EX44
MAJOR MODIFICATION
OFFSET MH LID
RIM=942.09

L-41
67 LF OF
12" HDPE
@ 0.73%

ST-40
HDPE INTAKE BASIN 24" DIA.
SOLID LID
RIM=942.27
FL 12" (S)=935.87
FL 15" (E)=935.77

INSTALL 22.5°
WATER MAIN BEND

EX 210 LF OF
15" RCP
@ 0.66%

ST-19
SW-506 INTK
TC=929.12
FL 15" (NE)=934.75
FL 15" (S)=933.85
FL 15" (NW)=933.75
FL 6" (NW)=935.62

ST-35
SW-401 48" MH
(PED. COVER)
RIM=942.41
FL 15" (W)=938.41

EX 188 LF OF
48" RCP
@ 1.75%

ST-64
SW-502 48" INTK
TC=939.50
FL 15" (W)=934.38

EX 214 LF OF
15" RCP
@ 1.00%

ST-36
SW-502 60 INTK
TC=940.09
FL 15" (N)=935.55
FL 15" (W)=934.09
FL 15" (SE)=933.99

L-36
37 LF OF
15" PIPE
@ 2.00%

485 LF OF 6"
WATER MAIN

EX ST-43
SW-404 MH 6'X6' BASE
(MINOR ADJUSTMENT)
(PED. COVER)
RIM=941.33
FL 48" (E)=928.75
FL 48" (W)=928.65
FL 15" (N)=935.56
FL 18" (S)=933.25

L-64
127 LF OF
15" PIPE
@ 0.60%

ST-16
RIM=937.28
FL 36" (NE)=930.31
FL 15" (SE)=931.61
FL 36" (NW)=930.21
FL 6" (SE)=933.78

ST-37
SW-501 INTK
TC=939.97
FL 15" (S)=936.00

L-37
45 LF OF
15" PIPE
@ 1.00%

EX SW-301 48" MH
(MAJOR ADJUSTMENT)
RIM=937.10
EX. TC=940.00
FL 15" (E)=923.10
FL 8" (NW)=923.63
FL 8" (SE)=923.63
FL 15" (SW)=923.00

ST-63
SW-502 48" INTK
TC=939.02
FL 15" (E)=933.62
FL 18" (N)=933.52

ST-58
SW-511 INTK
RIM=939.62
FL 15" (W)=935.62

ST-61
SW-511 INTK
RIM=940.41
FL 15" (W)=936.41

L-38
116 LF OF
15" PIPE
@ 0.60%

EX SW-303 48" MH
RIM=936.43
FL 15" (NE)=922.69
FL 8" (SE)=923.18
FL 15" (SW)=922.69

L-63
141 LF OF
18" PIPE
@ 0.50%

ST-38
SW-501 INTK
TC=938.89
FL 15" (N)=934.89
FL 15" (E)=934.79

L-35
443 LF OF
15" PERFORATED HDPE
@ 0.70%

POD #4

L-61
119 LF OF
15" PIPE
@ 1.18%

L-58
119 LF OF
15" PIPE
@ 1.18%

ST-39
SW-501 INTK
TC=939.01
FL 15" (S)=935.00

L-39
21 LF OF
15" PIPE
@ 0.52%

ST-62
SW-504 INTK
TC=936.98
FL 18" (S)=932.81
FL 18" (W)=932.71

ST-55
SW-501 INTK
TC=938.07
FL 15" (W)=934.00

ST-57
SW-501 INTK
TC=938.22
FL 15" (E)=934.22
FL 15" (W)=934.12

ST-60
SW-501 INTK
TC=939.02
FL 15" (E)=935.00
FL 15" (SW)=934.90

INSTALL 45°
WATER MAIN BEND

L-62
134 LF OF
18" PIPE
@ 0.60%

ST-15
RIM=936.30
FL 36" (SE)=929.46
FL 36" (NW)=929.36

EX 254 LF OF
EX 15" PVC
@ 0.65%

ST-52
SW-503 INTK
TC=937.53
FL 24" (S)=932.61
FL 15" (W)=932.94
FL 24" (N)=932.51

L-54
93 LF OF
24" PIPE
@ 0.40%

L-55
40 LF OF
15" PIPE
@ 2.05%

L-56
79 LF OF
24" PIPE
@ 0.40%

L-57
42 LF OF
15" PIPE
@ 1.24%

ST-59
SW-501 INTK
TC=938.17
FL 15" (NE)=934.27
FL 18" (N)=934.17

L-60
58 LF OF
15" PIPE
@ 1.09%

WATER SERVICE

EX 121 LF OF
36" RCP
@ 0.52%

ST-51
SW-503 INTK
TC=936.48
FL 24" (S)=931.81
FL 18" (E)=931.91
FL 24" (W)=931.71

P-3 (1)
15 LF OF
6" PVC
@ 1.00%

P-3
79 LF OF
6" PVC
@ 1.00%

P-3B
26 LF OF
6" PVC
@ 1.00%

S-3
SW-301 48" MH
RIM=939.19
FL 6" (N)
=930.85

EX ST-12
SW-506 MOD. INTK
TC=935.34
FL 36" (SE)=928.73
FL 30" (NE)=929.13
FL 42" (W)=928.33

L-52
140 LF OF
24" PIPE
@ 0.50%

L-53
30 LF OF
15" PIPE
@ 0.50%

ST-53
SW-512 24" DIA. INTK
TYPE 4 GRATE
TC=935.97
FL 15" (E)=933.09

ST-54
SW-511 INTK
RIM=936.73
FL 24" (S)=933.08
FL 15" (E)=933.18
FL 24" (N)=932.98

L-59
142 LF OF
18" PIPE
@ 0.40%

HYDRANT ASSEMBLY
(TYP.)

INSTALL 45°
WATER MAIN BEND

CURB STOP
(TYP.)

L-32
SLOTTED DRAIN
WITH HEEL GUARD
32 LF

P-1
54 LF OF
6" PVC
@ 1.00%

S-1
SW-301 48" MH
RIM=938.02
FL 6" (S)=926.51
FL 6" (NW)=926.41

P-2
304 LF OF
6" PVC
@ 1.00%

ST-56
SW-511 INTK
RIM=937.15
FL 18" (S)=933.60
FL 15" (E)=933.60
FL 24" (N)=933.40

S-2
SW-301 48" MH
RIM=938.52
FL 6" (S)=929.65
FL 6" (N)=929.55

P-3A
5 LF OF
6" PVC
@ 4.00%

S-3A
SW-203 CLEANOUT
RIM=938.73
FL 6" (E)=930.64

S-3C
SW-203 CLEANOUT
RIM=938.89
FL 6" (NE)=930.84

ELECTRIC
(REFER TO ELECTRICAL PLAN)

EX 198 LF OF
42" RCP
@ 0.80%

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-UTILITY SHEETS.DWG
FILE DATE: 10/10/22
LAST PLOTTED: 10/11/2022 4:43 PM
PLOT BY: CHRIS CASAULT
COMMENT:
DWG:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	UTILITY PLAN	SHEET NUMBER	C5.1

L-51
193 LF OF
24" PIPE
@ 1.35%

ST-48
SW-401 48" MH
(PED. COVER)
RIM=938.30
FL 15" (W)=934.30

EX 198 LF OF
42" RCP
@ 0.80%

ST-50
SW-502 60" INTK
TC=935.73
FL 24" (E)=929.10
FL 24" (N)=929.00

L-50
72 LF OF
24" PIPE
@ 1.60%

EX ST-11
SW-503 INTK
(MINOR ADJUSTMENT)
TC=933.91 (UAC, VERIFY)
FL 42" (E)=926.75
FL 24" (S)=927.85
FL 42" (W)=926.65

P-EX16
87 LF OF
EX 15" PVC
@ 0.67%

6" PVC
@ 1.00%

EX S-23
SW-303 48" MH
(MAJOR ADJUSTMENT)
EX. RIM=938.30
ADJUST RIM
RIM=938.19
FL 15" (NE)=921.04
FL 15" (SW)=921.04
FL 6" (SE)=925.87
(INSTALL DROP CONNECTION)
FL 6" (SE)=921.66

EX S-EX15
SW-301 48" MH
RIM=936.56 (18" BURY)
RIM=938.50
FL 15" (NE)=920.47
FL 15" (SW)=920.37
(VERIFY)

ST-33
HDPE INTAKE BASIN 24" DIA.
RIM=938.89
FL 12" (S)=934.62

L-33
120 LF OF
12" HDPE
@ 1.00%

TRENCH DRAIN

ST-31
HDPE INTAKE BASIN 24" DIA.
RIM=938.96
FL 12" (N)=933.42
FL 6" (E)=935.96
FL 12" (S)=933.32

L-31
24 LF OF
12" HDPE
@ 1.00%

ST-30
SW-401 48" MH
(PED. COVER)
RIM=939.29
FL 15" (E)=935.29
FL 15" (S)=933.08
FL 12" (N)=933.08
FL 18" (W)=932.98

L-30
90 LF OF
18" PERFORATED HDPE
@ 1.00%

ST-29
SW-401 48" MH
(BURY RIM 8")
RIM=937.85
FL 18" (E)=932.08
FL 15" (W)=933.60
FL 18" (N)=931.98

EX ST-42
SW-404 MH 6'X6' BASE
(MINOR MODIFICATION)
(PED. COVER)
RIM=938.36 (VERIFY)
FL 48" (E)=923.70
FL 48" (W)=923.60
FL 18" (S)=931.90

L-29
8 LF OF
18" HDPE
@ 1.00%

SHEET LEGEND

P-EX15
318 LF OF
EX 15" PVC
@ 0.47%

POD #6

POD #5

L-48
450 LF OF
15" PERFORATED HDPE
@ 0.73%

L-28
402 LF OF
15" PERFORATED HDPE
@ 0.50%

EX 400 LF OF
48" RCP
@ 1.25%

EX 368 LF OF
42" RCP
@ 0.90%

EX S-EX14
SW-301 48" MH
RIM=934.74 (18" BURY)
FL 15" (NE)=918.87
FL 15" (S)=918.67
(VERIFY)

P-EX14
221 LF OF
EX 15" PVC
@ 0.55%

EX S-22
SW-303 48" MH
(MINOR ADJUSTMENT)
(PED. COVER)
RIM=935.93 (VERIFY)
FL 15" (N)=917.17
FL 15" (S)=917.17

ST-EX13
RIM=934.28 (18" BURY)
FL 15" (N)=917.46
FL 15" (S)=917.31
(VERIFY)

P-EX13
27 LF OF
EX 15" PVC
@ 0.51%

P-EX12
153 LF OF
EX 15" PVC
@ 0.51%

ST-25
RIM=928.96
FL 12" (W)=925.84

EX 112 LF OF
12" HDPE
@ 1.00%

EX ST-10
SW-403 6'X6' MH
W/ TYPE 6 GRATE
(MINOR ADJUSTMENT)
RIM=930.63 (UAC, VERIFY)
FL 30" (N)=922.65
FL 42" (E)=923.34
FL 48" (S)=921.45

EX ST-9
SW-403 7'X4' MH
WITH 2 - TYPE R CASTINGS WITH GRATES
(MINOR ADJUSTMENT)
TC=931.54 (UAC, VERIFY)
FL 48" (N)=920.42
FL 48" (S)=920.32
FL 12" (W)=926.54

ST-24
RIM=928.96
FL 30" (N)=923.51
FL 12" (E)=924.72
FL 30" (S)=923.41

EX 76 LF OF
30" RCP
@ 1.00%

EX 108 LF OF
48" RCP
@ 0.95%

L-49
25 LF OF
12" PIPE
@ 2.00%

ST-49
SW-501 INTK
TC=932.58
FL 12" (E)=927.05

ST-47
SW-401 48" MH
(PED. COVER)
RIM=934.99
FL 15" (E)=931.00
FL 15" (S)=930.90

L-47
267 LF OF
18" PERFORATED HDPE
@ 0.50%

ST-45
SW-401 48" MH
(BURY RIM 8")
RIM=934.41
FL 12" (S)=930.21
FL 18" (N)=929.56
FL 18" (W)=921.41

L-46
172 LF OF
12" PERFORATED HDPE
@ 0.50%

ST-46
SW-401 48" MH
(PED. COVER)
RIM=935.07
FL 12" (N)=931.07

L-26
8 LF OF
18" HDPE
@ 1.00%

L-45
45 LF OF
18" HDPE
@ 2.00%

EX 326 LF OF
48" RCP
@ 1.00%

EX 36 LF OF
48" RCP
@ 1.00%

EX ST-7
48" RCP APRON
FL 48" (E)=913.30

EX ST-8
SW-403 7'X7' MH
RIM=925.49
FL 48" (N)=913.06
FL 48" (W)=913.66
FL 18" (E)=920.50

EX ST-41
SW-404 MH 6'X6' BASE
(MINOR ADJUSTMENT)
(PED. COVER)
RIM=935.52 (UAC, VERIFY)
FL 18" (E)=929.17
FL 48" (W)=914.40

ST-26
SW-401 48" MH
(PED. COVER)
RIM=935.67
FL 15" (S)=929.45
FL 15" (E)=931.59
FL 18" (N)=929.25

EX 86 LF OF
48" RCP
@ 1.25%

EX ST-40
48" RCP APRON
FL 48" (E)=913.30

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

COMMENT:
DATE PLOTTED: 10/11/2022 4:43 PM
DRAWN BY: SCHULTE
FILE: H:\2022\2202086\LDWG\SITE PLAN\2202086-UTILITY SHEETS.DWG
FILE DATE: 10/10/22
PLOTTED BY: SCHULTE

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE UTILITY PLAN	SHEET NUMBER C5.2

NE 10TH S

NE HERITAGE DRIVE

SHEET LEGEND

EX ST-62
-506 INTK
TC=942.75
E)=933.00
S)=936.34
W)=935.45
W)=935.24
S)=938.25

ST-41
HDPE INLINE DRAIN 24" DIA.
TYPE 3 GRATE
RIM=941.59
FL 12" (S)=936.46
FL 12" (N)=936.36

L-42
190 LF OF
12" PERFORATED HDPE
@ 0.73%

ST-42
HDPE INLINE DRAIN 24" DIA.
TYPE 3 GRATE
RIM=941.59
FL 12" (S)=937.95
FL 12" (N)=937.85

L-43
190 LF OF
12" PERFORATED HDPE
@ 0.73%

ST-43
HDPE INLINE DRAIN 24" DIA.
TYPE 3 GRATE
RIM=941.71
FL 12" (S)=939.44
FL 12" (N)=939.34

L-44
143 LF OF
12" PERFORATED HDPE
@ 0.73%

P-5
121 LF OF
8" PVC
@ 1.00%

HIGH POINT
RIM=942.24
FL 12" (N)=940.48
FL 12" (S)=940.48

L-23
95 LF OF
12" PERFORATED HDPE
@ 1.16%

L-22
264 LF OF
12" PERFORATED HDPE
@ 1.00%

HDPE INLINE DRAIN 24" DIA.
TYPE 3 GRATE
RIM=942.05
FL 12" (N)=939.38
FL 12" (S)=939.28

ST-35
SW-401 48" MH
(PED. COVER)
RIM=942.41
FL 15" (W)=938.41

EX ST-EX7
EX SW-301 48" MH
(MINOR ADJUSTMENT)
(PED. COVER)
RIM=942.44
FL 8" (E)=928.52
FL 8" (W)=928.41

P-EX7
199 LF OF
EX 8" PVC
@ 0.99%

POD #4

POD #4

POD #3

POD #3

EX ST-EX6
EX SW-301 48" MH
(MINOR ADJUSTMENT)
(PED. COVER)
RIM=941.04
FL 8" (E)=926.43
FL 8" (W)=926.37

P-EX6
238 LF OF
EX 8" PVC
@ 1.08%

ST-30
SW-401 48" MH
(PED. COVER)
RIM=939.29
FL 15" (E)=935.29
FL 15" (S)=933.08
FL 12" (N)=933.08
FL 18" (W)=932.98

L-34
443 LF OF
15" PERFORATED HDPE
@ 0.50%

ST-34
SW-401 48" MH
(PED. COVER)
RIM=939.29
FL 15" (N)=935.29

ST-10
SW-401 48" MH
(PED. COVER)
RIM=939.66
FL 15" (S)=935.66

L-10
396 LF OF
15" PERFORATED HDPE
@ 0.50%

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

COMMENT:
DISC:
DATE PLOTTED: 10/11/2022 4:44 PM
FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-UTILITY SHEETS.DWG
FILE DATE: 10/10/22
PLOT BY: BRIAN SCHULTE

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE UTILITY PLAN	SHEET NUMBER C5.3

ST-30
SW-401 48" MH
(PED. COVER)
RIM=939.29
FL 15" (E)=935.29
FL 15" (S)=933.08
FL 12" (N)=933.08
FL 18" (W)=932.98

L-30
90 LF OF
18" PERFORATED HDPE
@ 1.00%

L-34
443 LF OF
15" PERFORATED HDPE
@ 0.50%

ST-34
SW-401 48" MH
(PED. COVER)
RIM=939.29
FL 15" (N)=935.29

ST-10
SW-401 48" MH
(PED. COVER)
RIM=939.66
FL 15" (S)=935.66

L-10
396 LF OF
15" PERFORATED HDPE
@ 0.50%

EX S-EX5
EX SW-301 48" MH
(MINOR ADJUSTMENT)
(VERIFY RIM, INSTALL PED. COVER)
RIM=939.29
FL 8" (E)=923.81
FL 8" (W)=923.75

SHEET LEGEND

EX ST-42
404 MH 6'X6' BASE
(MINOR MODIFICATION)
(PED. COVER)
RIM=938.36 (VERIFY)
FL 48" (E)=923.70
FL 48" (W)=923.60

ST-27
SW-401 48" MH
(PED. COVER)
RIM=935.67
FL 15" (N)=931.67

ST-8
SW-401 48" MH
(PED. COVER)
RIM=936.03
FL 15" (S)=932.00

L-8
397 LF OF
15" PERFORATED HDPE
@ 0.50%

P-EX4
186 LF OF
EX S-EX4 EX 15" PVC
@ 2.83%

EX SW-301 60" MH
(INSTALL DROP CONNECTION)
RIM=920.35
FL 6" (S)=914.35
FL 24" (N)=907.94
FL 24" (W)=908.09
FL 15" (E)=907.98
FL 6" (S)=909.14 (DROP)

S-4
SW-301 48" MH
RIM=925.10
FL 6" (S)=918.07
FL 6" (N)=917.86

P-4
117 LF OF
6" PVC
@ 3.00%

EX. TEE
(REMOVE)

EX 376 LF OF
EX 8" PVC
@ 2.64%

POD #2

POD #2

SPECIAL FLOOD HAZARD
AREAS REGULATORY
FLOODWAY (TYP.)

SPECIAL FLOOD HAZARD
AREAS ZONE AE (TYP.)

EX. PEDESTRIAN BRIDGE
(PROTECT)

LITTLE BEAVER CREEK TRIBUTARY

DETAIL A-A

EX S-22
SW-303 48" MH
(MINOR ADJUSTMENT)
(PED. COVER)
RIM=935.93 (VERIFY)
FL 15" (N)=917.17
FL 15" (S)=917.17

EX S-EX11
EX SW-301 48" MH
(MAJOR ADJUSTMENT)
RIM=934.87 (18" BURY)
RIM=929.12
FL 15" (N)=916.39
FL 8" (E)=916.90
FL 15" (S)=916.23

EX S-EX4
EX SW-301 48" MH
(MINOR ADJUSTMENT)
RIM=936.37
(VERIFY, INSTALL PED. COVER)
FL 15" (N)=913.47
FL 8" (E)=913.81
FL 8" (S)=913.89
FL 15" (W)=913.25

ST-EX13
M=934.28 (18" BURY)
FL 15" (N)=917.46
FL 15" (S)=917.31
(VERIFY)

P-EX13
27 LF OF
EX 15" PVC
@ 0.51%

P-EX12
153 LF OF
EX 15" PVC
@ 0.51%

L-26.
8 LF OF
18" HDPE
@ 1.00%

L-27
445 LF OF
15" PERFORATED HDPE
@ 0.50%

ST-27
SW-401 48" MH
(PED. COVER)
RIM=935.67
FL 15" (N)=931.67

ST-8
SW-401 48" MH
(PED. COVER)
RIM=936.03
FL 15" (S)=932.00

L-8
397 LF OF
15" PERFORATED HDPE
@ 0.50%

EX ST-41
MH 5'X6' BASE
R ADJUSTMENT)
(PED. COVER)
(UAC, VERIFY)
18" (E)=929.17
48" (W)=914.40

EX 86 LF OF
48" RCP
@ 1.26%

EX ST-40
48" RCP APRON
FL 48" (E)=913.30

ST-26.
SW-401 48" MH
(PED. COVER)
RIM=935.67
FL 15" (S)=929.45
FL 15" (E)=931.59
FL 18" (N)=929.25

REFER TO DETAIL A-A ON THIS SHEET

P-5
305 LF OF
6" PVC
@ 2.50%

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

COMMENT DOC

DATE PLOTTED: 10/1/2022 4:44 PM

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-UTILITY SHEETS.DWG

FILE DATE: 10/10/22

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE | POLK | COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE UTILITY PLAN | SHEET NUMBER C5.4

NE HERITAGE DRIVE

SHEET LEGEND

REMOVE TEMPORARY BLOW OFF HYDRANT & CONNECT WATER MAIN

ST-21
HDPE INTAKE BASIN 24" DIA.
TYPE 3 GRATE
RIM=941.24
FL 12" (N)=936.64
FL 12" (W)=936.54

ST-11
SW-401 48" MH
(PED. COVER)
RIM=942.93
FL 15" (W)=938.93

CRITTICAL CROSSING
BOTTOM OF STORM=937.84
TOP OF WATER=936.34

ST-16
SW-511 INTK
RIM=941.73
FL 12" (S)=937.51
FL 15" (W)=937.41

ST-17
SW-512 24" DIA. INTK
TYPE 3 GRATE
TC=943.90
FL 12" (N)=939.50

L-17
76 LF OF
12" PIPE
@ 2.62%

L-21
347 LF OF
12" PERFORATED HDPE
@ 1.00%

409 LF OF 6"
WATER MAIN

ST-74
RIM=943.16
FL 48" (NE)=935.66
FL 15" (SE)=935.63
FL 48" (W)=932.52
FL 15" (N)=937.74

EX 192 LF OF
48" RCP
@ 1.09%

ST-24
SW-512 24" DIA. INTK
TYPE 3 GRATE
RIM=943.64
FL 12" (S)=939.14

L-24
62 LF OF
12" PIPE
@ 5.00%

L-25
24 LF OF
15" PIPE
@ 5.00%
FL=937.65
(PLUG PIPE)

EX ST-73
SW-403 7'X4' MH
WITH 2 - TYPE R CASTINGS WITH GRATES
(MINOR ADJUSTMENT)
TC=942.01
FL 48" (E)=930.42
FL 48" (W)=930.32
FL 15" (S)=936.43
FL 12" (N)=936.06

EX 160 LF OF
48" RCP
@ 1.10%

POD #3

L-11
456 LF OF
15" PERFORATED HDPE
@ 0.71%

ST-18
HDPE INTAKE BASIN 24" DIA.
TYPE 4 GRATE
TC=937.98
FL 6" (NW)=934.97
FL 12" (E)=933.07
FL 15" (S)=932.96

L-16
195 LF OF
15" PIPE
@ 2.62%

L-19
17 LF OF
6" HDPE
@ 0.50%

ST-19
STORM CLEANOUT
(INSTALL LIGHT
DUTY CASTING)
RIM=939.38
FL 6" (SE)=935.07

ELECTRIC
(REFER TO ELECTRICAL PLAN)

ST-15
SW-401 MOD. 48" MH
W/ TYPE 6 CASTING
RIM=937.96
FL 15" (N)=932.31
FL 15" (E)=932.31
FL 18" (SW)=932.11

L-18
65 LF OF
15" PIPE
@ 1.00%

CRITTICAL CROSSING
BOTTOM OF STORM=931.78
TOP OF WATER=930.28

L-15
109 LF OF
18" PIPE
@ 0.50%

ST-14
SW-401 MOD. 48" MH
W/ TYPE 6 CASTING
RIM=938.00
FL 18" (NE)=931.57
FL 18" (S)=931.48

L-20A
SLOTTED DRAIN WITH
HEEL GUARD
103 LF

P-7B
36 LF OF
6" PVC
@ 1.00%

P-8
17 LF OF
6" PVC
@ 2.00%

65 LF OF 2"
WATER SERVICE

CURB STOP (TYP.)

HYDRANT ASSEMBLY
(TYP.)

L-20
123 LF OF
6" PIPE
@ 0.50%

CRITTICAL CROSSING
BOTTOM OF STORM=935.53
TOP OF WATER=934.03

P-7A
60 LF OF
6" PVC
@ 1.00%

P-9
17 LF OF
6" PVC
@ 4.00%

S-8
SW-203 CLEANOUT
RIM=940.03
FL 6" (N)=932.24

675 LF OF 2"
WATER SERVICE

L-14
75 LF OF
18" PIPE
@ 0.90%

ST-13
SW-511 INTK
TC=937.79
FL 18" (N)=930.80
FL 24" (S)=930.60

L-13
119 LF OF
24" PIPE
@ 0.40%

ST-12
SW-511 INTK
RIM=937.98
FL 24" (N)=930.13
FL 24" (S)=930.03

L-12
74 LF OF
24" PIPE
@ 0.50%

ST-9
SW-401 48" MH
(PED. COVER)
RIM=939.69
FL 15" (E)=935.69
FL 15" (N)=933.68
FL 24" (W)=933.58

P-7
145 LF OF
6" PVC
@ 1.00%

CONNECT SLOTTED DRAIN
& OUTLET TO L-20

ST-20
STORM CLEANOUT
(INSTALL HEAVY
DUTY CASTING)
RIM=939.61
FL 6" (E)=935.67

S-9
SW-203 CLEANOUT
RIM=939.76
FL 6" (N)=931.99

ST-3
SW-401 48" MH
(PED. COVER)
RIM=939.30
FL 15" (W)=934.30

EX ST-72
SW-306 MOD. INTK
(MAJOR MOD.)
(SOLID TOP w/ TYPE F CASTING)
EX TC=936.45
RIM=938.01
FL 48" (E)=928.56
FL 24" (N)=929.87 (PLUG)
FL 48" (W)=928.46

ST-23
SW-403 MOD. (7'x4')
(SINGLE TYPE R CASTING)
(REMOVE 4 FT. OF EX. PIPE)
TC=937.91
FL 48" (E)=927.79 (VERIFY)
FL 48" (W)=927.74 (VERIFY)
FL 24" (N)=929.66

EX 225 LF OF
48" RCP
@ 1.44%

L-3
456 LF OF
15" PERFORATED HDPE
@ 0.50%

SCALE
0' 15' 30' 60'

NO. | REVISIONS | DATE | BY

COMMENT:
DISCIPLINE:

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-UTILITY SHEETS.DWG
FILE DATE: 10/10/22
DATE PLOTTED: 10/11/2022 4:44 PM
PLOTTED BY: BEN SCHULTE

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE UTILITY PLAN	SHEET NUMBER C5.5

ST-9
SW-401 48" MH
(PED. COVER)
RIM=939.69
FL 15" (E)=935.69
FL 15" (N)=933.68
FL 24" (W)=933.58

P-7
145 LF OF
6" PVC
@ 1.00%

P-7
145 LF OF
6" PVC
@ 1.00%

S-6
SW-301 48" MH
(PED. COVER)
RIM=938.60
FL 6" (E)=929.85
FL 6" (W)=929.75

675 LF OF 2"
WATER SERVICE

L-9
496 LF OF
24" PERFORATED HDPE
@ 0.50%

POD #1

L-3
456 LF OF
15" PERFORATED HDPE
@ 0.50%

POD #2

P-6
385 LF OF
6" PVC
@ 1.00%

L-7
58 LF OF
24" HDPE
@ 0.50%

CRITTICAL CROSSING
BOTTOM OF STORM=929.69
TOP OF WATER=928.19

CRITTICAL CROSSING
BOTTOM OF STORM=929.76
TOP OF SANITARY=926.71

ST-4
SW-401 60" MH
(PED. COVER)
RIM=936.17
FL 24" (NW)=929.61
FL 12" (SW)=928.31
FL 24" (S)=929.51

L-6
50 LF OF
SLOTTED DRAIN
WITH HEEL GUARD
@ 0.50%

L-4
395 LF OF
24" PERFORATED HDPE
@ 0.55%

ST-2
SW-401 48" MH
(PED. COVER)
RIM=936.07
FL 24" (N)=927.33
FL 15" (E)=932.02
FL 24" (SE)=927.23

ST-7
SW-402 5'X5' MH
(BURY RIM 8")
RIM=935.41
FL 15" (N)=930.01
FL 24" (E)=931.10
FL 24" (SE)=929.90

L-5
27 LF OF
12" HDPE
@ 0.86%

CURB STOP (TYP.)

ST-5
HDPE INTAKE BASIN 24" DIA.
RIM=936.02
FL 12" (S)=934.09
FL 12" (N)=934.09
FL 12" (NE)=928.54

P-10
20 LF OF
6" PVC
@ 2.00%

P-6A
11 LF OF
6" PVC
@ 1.00%

S-4
SW-301 48" MH
RIM=925.10
FL 6" (S)=918.07
FL 6" (N)=917.86

P-5
305 LF OF
6" PVC
@ 2.50%

P-5
305 LF OF
6" PVC
@ 2.50%

S-5
SW-301 48" MH
RIM=935.67
FL 6" (E)=925.79
FL 6" (N)=925.69

S-10
SW-203 CLEANOUT
RIM=936.06
FL 6" (N)=926.30

SHEET LEGEND

EX 67 LF OF
60" RCP
@ 0.64%

EX ST-70
60" RCP APRON
TC=929.58
FL 60" (N)=924.00

EX ST-71
SW-403 7'X7' MH
TC=935.00
FL 48" (E)=925.23
FL 60" (S)=924.43

ST-1
24" CMP APRON
RIM=926.16
FL 24" (NW)=924.00

INTALL 15 TONS
OF CLASS 'E'
RIPRAP

L-2
229 LF OF
24" HDPE
@ 1.41%

SPECIAL FLOOD HAZARD
AREAS ZONE AE (TYP.)

SPECIAL FLOOD HAZARD AREAS
REGULATORY FLOODWAY (TYP.)

SCALE
0' 15' 30' 60'

NO. REVISIONS BY DATE

COMMENTS

FILE: N:\2022\2202086\WORKSITE PLAN\2202086-UTILITY SHEETS.DWG
DATE PLOTTED: 10/11/2022 4:44 PM
PLOT DATE: 10/10/22
PLOTTED BY: SCHULTZ

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE UTILITY PLAN	SHEET NUMBER C5.6

LOT 18
LOT 16
LOT 15
LOT 37
LOT 38
LOT 39
LOT 40
LOT 41
LOT 42
LOT 34
LOT 47
LOT 49
LOT 48
LOT 50
LOT 51
LOT 55
LOT 54
LOT 56
LOT 53
LOT 52
LOT 14
LOT 13
LOT 12
LOT 11
LOT 10
LOT 9
LOT 8
LOT 7

NE 10TH STREET
NE HERITAGE DRIVE
NE GATEWAY DR
PRIVATE ROAD
NE 12TH STREET
NE LITTLE BEAVER ST

POD #4
POD #3
POD #6
POD #5
POD #2
POD #1

OUTLOT Z
OUTLOT Z
OWNER:
CITY OF GRIMES

OUTLOT Y
OWNER:
CITY OF GRIMES

EXISTING TREES TO REMAIN

SCALE
0' 50' 100' 200'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-LANDSCAPE SHEETS.DWG
DATE PLOTTED: 10/11/2022 4:45 PM
PLOT DATE: 10/10/22
PLOTTED BY: JOSH SCHULTE

COMMENT:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER	2202.086	SHEET TITLE	LANDSCAPE PLAN	SHEET NUMBER	C6.0

NE HERITAGE DRIVE

NE 10

SHEET LEGEND

SOD (TYP)

3" OF SHREDDED HARDWOOD MULCH (TYP)

4" STEEL LANDSCAPE EDGING (TYP)

SEED (TYP 1)

SOD (TYP)

POD #4

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\LDWG\SITE PLAN\2202086-LANDSCAPE SHEETS.DWG
FILE DATE: 10/10/22
PLOTTED BY: ROB SCHULTE
DATE PLOTTED: 10/11/2022 4:45 PM
COMMENT:
DESIGN:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE LANDSCAPE PLAN	SHEET NUMBER C6.1

3" OF SHREDDED HARDWOOD MULCH (TYP)
4" STEEL LANDSCAPE EDGING (TYP)

SOD (TYP)

SEED (TYP 1)

SEED (TYP 3)

POD #5

POD #6

SHEET LEGEND

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-LANDSCAPE SHEETS.DWG
PLT. DATE: 10/10/22
PLOTTED BY: SCHULTE
DATE PLOTTED: 10/11/2022 4:45 PM
COMMENT:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE LANDSCAPE PLAN	SHEET NUMBER C6.2

NE HERITAGE DRIVE

NE 107

SHEET LEGEND

SOD (TYP)

POD #4

POD #3

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-LANDSCAPE SHEETS.DWG
FILE DATE: 10/10/22
PLOTTED BY: ERIC SCHULTE
DATE PLOTTED: 10/11/2022 4:45 PM
COMMENT:
DISC:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE LANDSCAPE PLAN	SHEET NUMBER C6.3

SHEET LEGEND

POD #1

POD #2

POD #5

QR 1

PS 1

PG 5

AG 1

MS 5

PG 4

TC 1

SCALE

0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-LANDSCAPE SHEETS.DWG
PLT. DATE: 10/20/22
STYLE TBL: SCHULTE
DATE PLOTTED: 10/11/2022 4:45 PM
COMMENT:
DSG:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE LANDSCAPE PLAN	SHEET NUMBER C6.4

NE HERITAGE DRIVE

SHEET LEGEND

SOD (TYP)

3" OF SHREDDED HARDWOOD MULCH (TYP)

4" STEEL LANDSCAPE EDGING (TYP)

POD #3

SCALE
0' 15' 30' 60'

No.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-LANDSCAPE SHEETS.DWG
PLT DATE: 10/10/22
PLOTTED BY: SCHULTE
DATE PLOTTED: 10/11/2022 4:45 PM
COMMENT:
DISC

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE LANDSCAPE PLAN	SHEET NUMBER C6.5

POD #1

POD #2

SEED (TYP 3)

SHEET LEGEND

SCALE 0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\LDWG\SITE PLAN\2202086-LANDSCAPE SHEETS.DWG
FILE DATE: 10/10/22
PLOT DATE: 10/11/2022 4:45 PM
PLOTTED BY: CHRIS LITT
COMMENT:
DISC:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE LANDSCAPE PLAN	SHEET NUMBER C6.6

OUTLOT Z
OWNER:
CITY OF GRIMES

SHEET LEGEND

SEED (TYP 3)

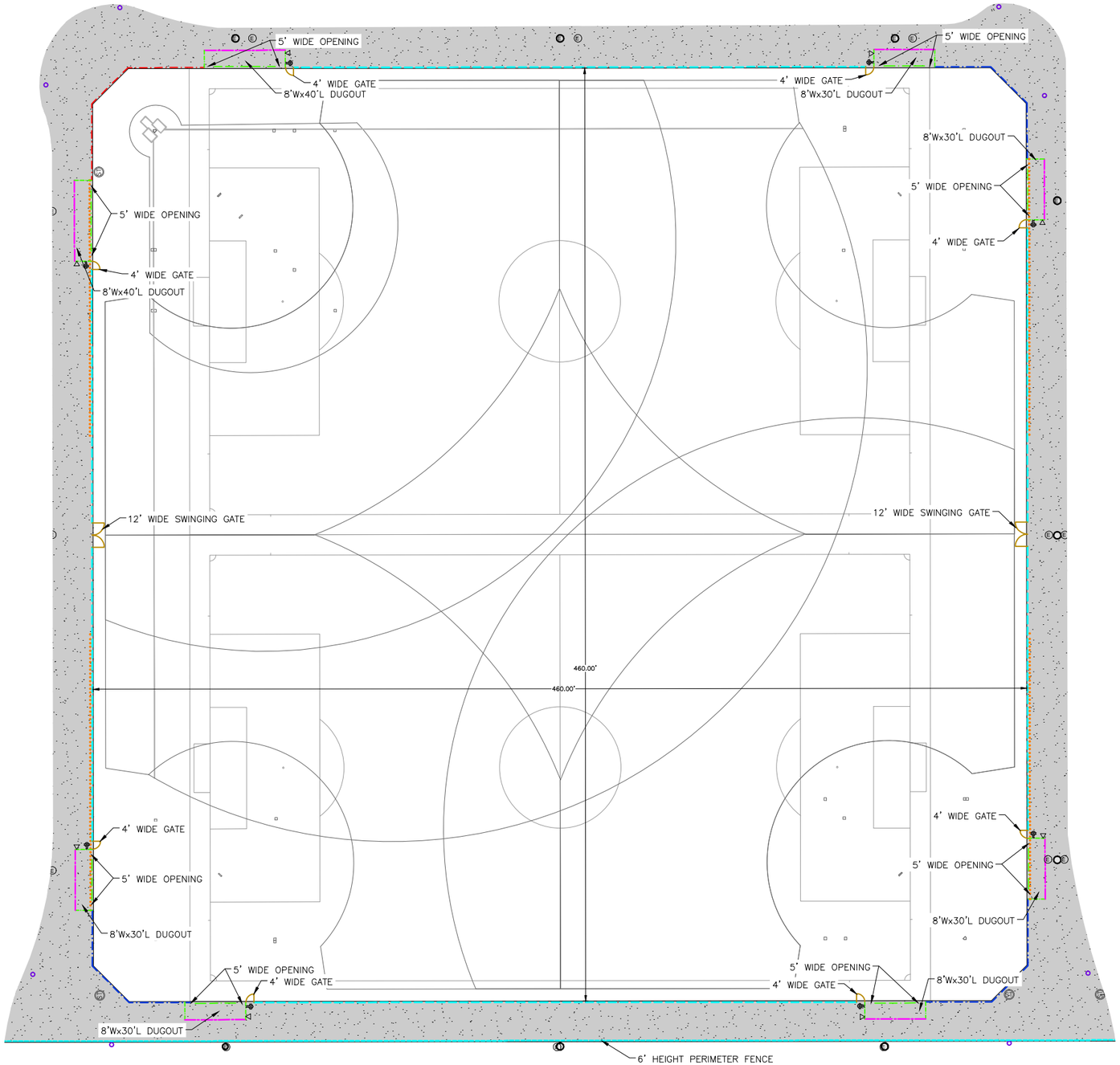
SEED (TYP 3)

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\LDWG\SITE PLAN\2202086-LANDSCAPE SHEETS.DWG
FILE DATE: 10/10/22
PLOTTED BY: BRIAN SCHULTE
DATE PLOTTED: 10/11/2022 4:45 PM
COMMENT:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE LANDSCAPE PLAN	SHEET NUMBER C6.7



FENCE LEGEND

- 6' CHAIN LINK FENCE
- 8' CHAIN LINK FENCE
- 10' CHAIN LINK FENCE
- 40' BACKSTOP TIE-BACK TENSION NETTING
- 30' BACKSTOP TIE-BACK TENSION NETTING
- BALL CONTROL NETTING
- SWING GATE
- TIE BACK POLES
- FIELD LIGHT POLES (BY OTHERS)

NOTES:
1.) REFER TO MANUFACTURER DRAWINGS AND SPECIFICATIONS FOR ALL FENCE NETTING, GATES AND POLES.

2.) LOCATIONS VARY, REFER TO DIMENSION PLANS.

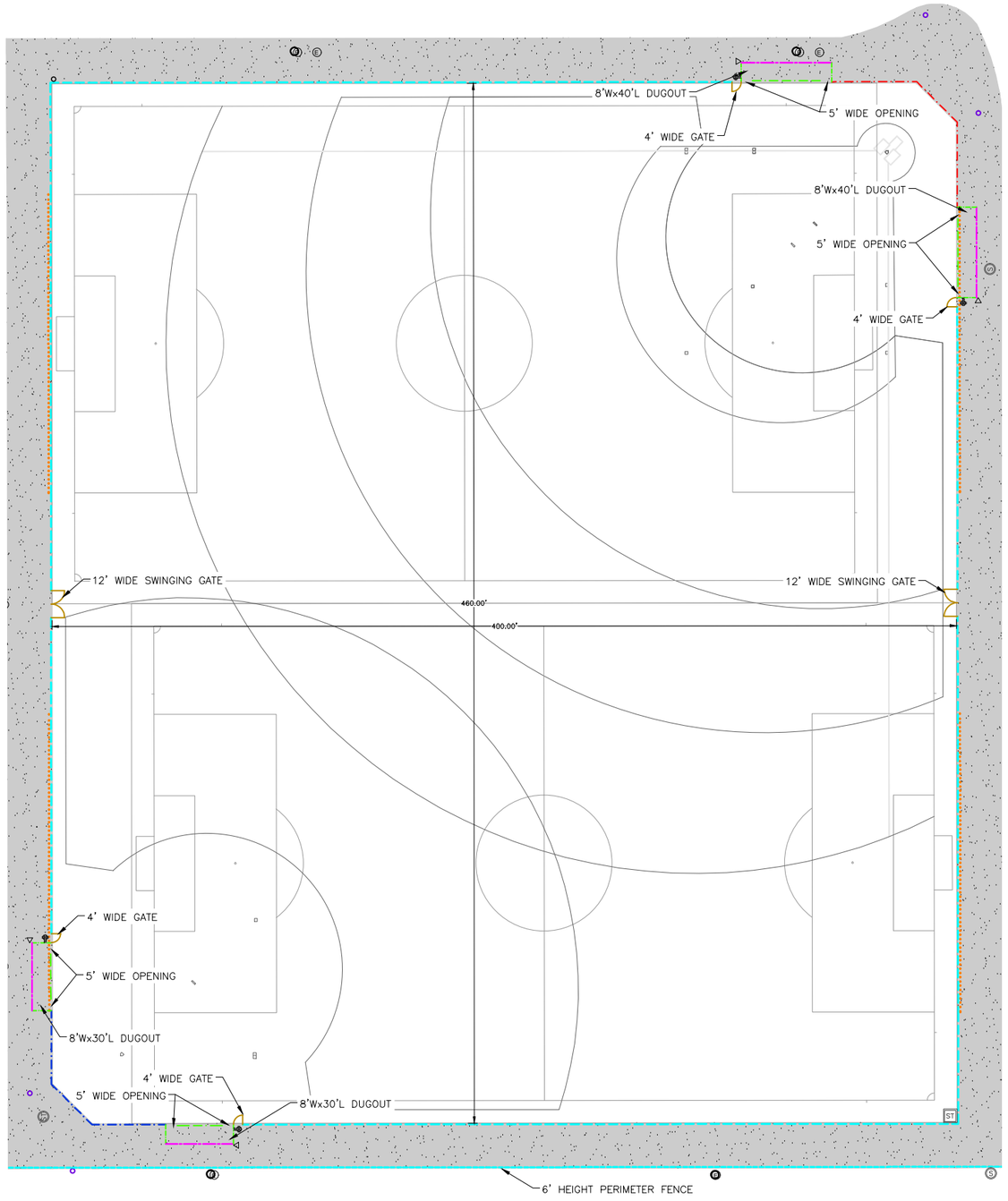
3.) ALL FENCES AND GATES ARE TO BE VINYL COATED CHAIN LINK AND BLACK IN COLOR.

SCALE
0' 15' 30' 60'

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-FIELD FENCE SHEETS.DWG
FILE DATE: 10/11/2022
DATE PLOTTED: 10/11/2022 2:13 PM
PLOTTED BY: JESSE WHITE
DWG:
COMMENT:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE | POLK COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE TYPICAL 460'x460' FIELD FENCING | SHEET NUMBER C7.0



FENCE LEGEND

- 6' CHAIN LINK FENCE
- 8' CHAIN LINK FENCE
- 10' CHAIN LINK FENCE
- 40' BACKSTOP TIE-BACK TENSION NETTING
- 30' BACKSTOP TIE-BACK TENSION NETTING
- BALL CONTROL NETTING
- SWING GATE
- TIE BACK POLES
- FIELD LIGHT POLES (BY OTHERS)

NOTES:
1.) REFER TO MANUFACTURER DRAWINGS AND SPECIFICATIONS FOR ALL FENCE NETTING, GATES AND POLES.

2.) LOCATIONS VARY, REFER TO DIMENSION PLANS.

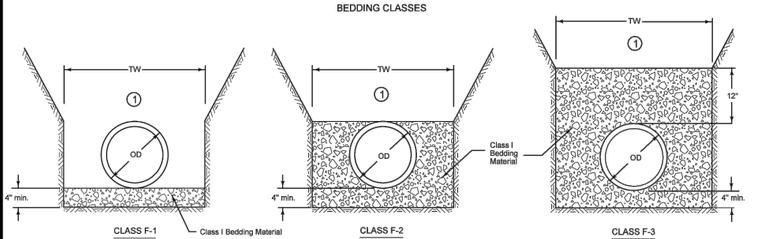
3.) ALL FENCES AND GATES ARE TO BE VINYL COATED CHAIN LINK AND BLACK IN COLOR.

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-FIELD FENCE SHEETS.DWG
FILE DATE: 10/11/22
DATE PLOTTED: 10/11/2022 2:13 PM
COMMENT:
PLOTTED BY: ERIC.PRICHARD.ULT
DWG:
TITLE:

SCALE
0' 15' 30' 60'

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE | POLK COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE TYPICAL 460'x400' FIELD FENCING | SHEET NUMBER C7.1



1. Place remainder of bedding and backfill materials as specified in the contract documents.
2. Minimum depth of bury 12 inches or as specified by the manufacturer.

ALLOWABLE BEDDING CLASSES

PIPE MATERIAL	STORM SEWER	SANITARY SEWER
Ductile Iron	F-1, F-2, F-3	F-1, F-2, F-3
HDPE	F-2, F-3	Not allowed
Polypropylene	F-2, F-3	F-3
PVC	F-2, F-3	F-3

Key

OD = Outside diameter of pipe

TW = Trench width at top of pipe:
Min. = OD+18 inches OR 1.25xOD+12 inches
(whichever is greater)

ALLOWABLE BURY DEPTH (2)

PVC PIPE

Pipe Diameter (in)	ASTM D 3034			ASTM F 679	ASTM F 949	ASTM F 1803	ASTM D 2680
	Solid Wall			Solid Wall	Corrug. Exterior	Closed Profile	Composite (Truss Type)
	SDR 23.5	SDR 26	SDR 35	SDR 35			
8	30'	28'	24'	---	24'	---	32'
10	30'	28'	24'	---	24'	---	32'
12	30'	28'	24'	---	24'	---	32'
15	30'	28'	24'	---	24'	---	32'
18	---	---	---	24'	24'	---	---
21	---	---	---	24'	24'	24'	---
24	---	---	---	24'	24'	24'	---
27	---	---	---	24'	---	24'	---
30	---	---	---	24'	24'	24'	---
33	---	---	---	24'	---	---	---
36	---	---	---	24'	24'	24'	---
42	---	---	---	24'	---	24'	---
48	---	---	---	24'	---	24'	---
54	---	---	---	---	---	24'	---
60	---	---	---	---	---	24'	---

DUCTILE IRON, AWWA C151, CLASS 52

Pipe Diameter (in)	Class F-1 Bedding	Class F-2 Bedding	Class F-3 Bedding
4	40'	40'	40'
6	40'	40'	40'
8	40'	40'	40'
10	40'	40'	40'
12	37'	40'	40'
14	31'	40'	40'
16	28'	37'	40'
18	25'	34'	40'
20	23'	32'	40'
24	20'	29'	38'
30	18'	23'	31'
36	18'	22'	30'
42	17'	21'	29'
48	16'	19'	27'
54	16'	19'	27'

HDPE PIPE

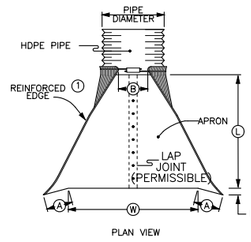
Pipe Diameter (in)	AASHTO M 294
12	8'
15	9'
18	9'
24	9'
30	9'
36	9'
42	8'
48	8'
54	8'
60	8'

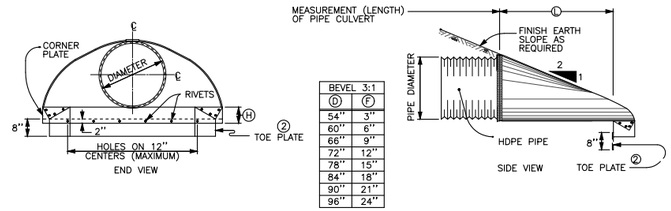
POLYPROPYLENE PIPE

Pipe Diameter (in)	ASTM F 2764
12	24'
15	25'
18	22'
24	20'
30	22'
36	21'
42	22'
48	23'
54	21'
60	21'

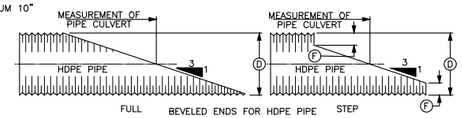
5 SW-103 FLEXIBLE GRAVITY PIPE TRENCH BEDDING
NOT TO SCALE

DIMENSIONS					
PIPE DIAM.	A 1''	B MAX.	H 1''	L 1''	W 2''
15''	6''	8''	6''	26''	30''
18''	7''	9''	6''	31''	36''
21''	8''	11''	6''	36''	42''
24''	9''	12''	6''	42''	48''
30''	12''	15''	7''	52''	60''
36''	14''	18''	9''	63''	72''
42''	16''	21''	10''	73''	84''
48''	18''	27''	12''	84''	90''
54''	18''	30''	12''	84''	102''
60''	18''	33''	12''	87''	114''
66''	18''	36''	12''	87''	120''
72''	18''	39''	12''	87''	126''
78''	18''	42''	12''	87''	132''
84''	18''	45''	12''	87''	138''
90''	24''	37''	11''	87''	144''
96''	25''	35''	12''	87''	150''





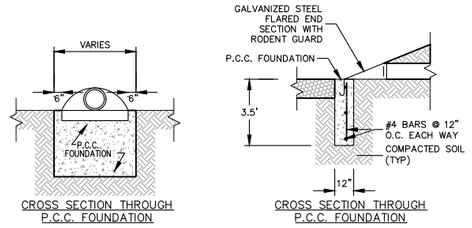
BEVEL 3:1	
D	F
54''	3''
60''	6''
66''	9''
72''	12''
78''	15''
84''	18''
90''	21''
96''	24''



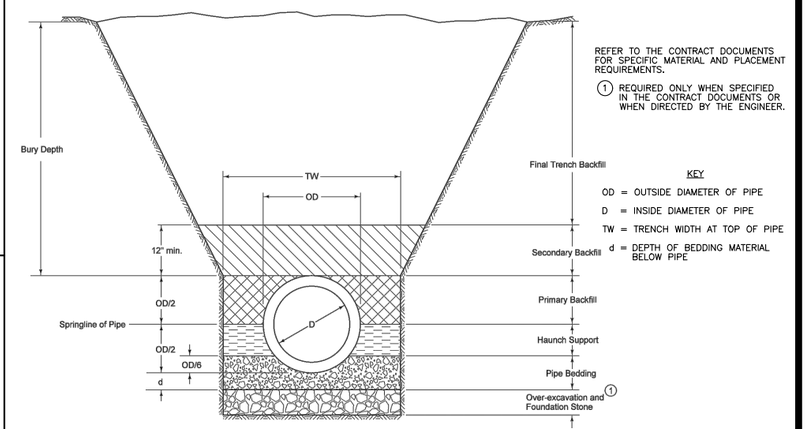
NOTE:
WHEN SPECIFICALLY REQUIRED AS PART OF DETAIL PROJECT PLANS, ENDS OF PIPE CULVERT MAY BE PROVIDED WITH BEVELED ENDS AS SHOWN. EITHER FULL BEVEL OR STEP BEVEL MAY BE USED UNLESS ONE TYPE IS SPECIFIED. UNLESS SPECIFIED OTHERWISE, THE SLOPE OF THE BEVEL SHALL BE 3:1.

BEVELED ENDS WILL NOT BE PAID FOR SEPERATELY BUT, WHEN REQUIRED, SHALL BE CONSIDERED INCIDENTAL TO THE PRICE BID OF THE CULVERT.

1 CORRUGATED METAL PIPE APRON
NOT TO SCALE



4 METAL FLARED END SECTION FOOTING
NOT TO SCALE



REFER TO THE CONTRACT DOCUMENTS FOR SPECIFIC MATERIAL AND PLACEMENT REQUIREMENTS.

(1) REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT DOCUMENTS OR WHEN DIRECTED BY THE ENGINEER.

KEY

OD = OUTSIDE DIAMETER OF PIPE

D = INSIDE DIAMETER OF PIPE

TW = TRENCH WIDTH AT TOP OF PIPE

d = DEPTH OF BEDDING MATERIAL BELOW PIPE

2 SW - 101 TRENCH BEDDING AND BACKFILL ZONES
NOT TO SCALE

ALLOWABLE BURY DEPTH

CLASS III RCP

Pipe Diameter (in)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding		
			No Steel	As=0.4%	As=1.0%
12	7'	10'	15'	19'	27'
15	8'	10'	16'	19'	27'
18	8'	11'	16'	20'	40'
21	8'	11'	18'	26'	40'
24	8'	12'	23'	36'	40'
27	10'	15'	30'	40'	40'
30	11'	15'	29'	40'	40'
33	11'	15'	28'	40'	40'
36	11'	15'	27'	40'	40'
42	11'	15'	26'	38'	40'
48	11'	15'	26'	36'	40'
54	11'	15'	25'	34'	40'
60	11'	15'	25'	33'	40'
66	11'	15'	24'	32'	40'
72	11'	15'	24'	32'	40'

As = Area of Steel Reinforcing

CLASS IV RCP

Pipe Diameter (in)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding		
			No Steel	As=0.4%	As=1.0%
12	12'	15'	23'	28'	40'
15	12'	16'	23'	30'	40'
18	13'	16'	29'	40'	40'
21	13'	18'	40'	40'	40'
24	16'	23'	40'	40'	40'
27	19'	30'	40'	40'	40'
30	19'	29'	40'	40'	40'
33	19'	28'	40'	40'	40'
36	19'	28'	40'	40'	40'
42	18'	27'	40'	40'	40'
48	18'	26'	40'	40'	40'
54	18'	25'	40'	40'	40'
60	18'	25'	40'	40'	40'
66	18'	25'	40'	40'	40'
72	18'	24'	40'	40'	40'

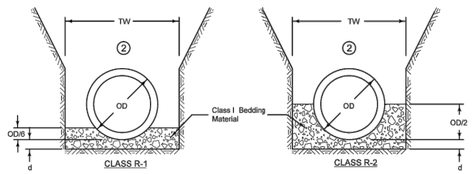
As = Area of Steel Reinforcing

CLASS V RCP

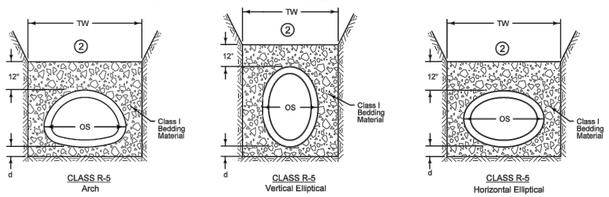
Pipe Diameter (in)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding		
			No Steel	As=0.4%	As=1.0%
12	18'	23'	35'	40'	40'
15	19'	24'	40'	40'	40'
18	19'	30'	40'	40'	40'
21	25'	40'	40'	40'	40'
24	34'	40'	40'	40'	40'
27	40'	40'	40'	40'	40'
30	40'	40'	40'	40'	40'
33	40'	40'	40'	40'	40'
36	40'	40'	40'	40'	40'
42	37'	40'	40'	40'	40'
48	35'	40'	40'	40'	40'
54	33'	40'	40'	40'	40'
60	32'	40'	40'	40'	40'
66	31'	40'	40'	40'	40'
72	31'	40'	40'	40'	40'

As = Area of Steel Reinforcing

RCP AND VCP CIRCULAR PIPE BEDDING (1)



REINFORCED CONCRETE ARCH AND ELLIPTICAL PIPE BEDDING



EXTRA STRENGTH VCP

Pipe Dia. (in)	Bedding Class				
	R-1	R-2	R-3 & R-4		
			No Steel	As=0.4%	As=1.0%
6	25'	30'	30'	30'	30'
8	20'	26'	30'	30'	30'
10	18'	23'	30'	30'	30'
12	16'	20'	30'	30'	30'
15	15'	19'	28'	30'	30'
18	14'	18'	30'	30'	30'
21	15'	22'	30'	30'	30'
24	18'	28'	30'	30'	30'
27	20'	30'	30'	30'	30'
30	19'	29'	30'	30'	30'
33	20'	30'	30'	30'	30'
36	20'	30'	30'	30'	30'
39	19'	29'	30'	30'	30'
42	18'	26'	30'	30'	30'

As = Area of Steel Reinforcing

CONCRETE ARCH PIPE

Pipe Size (in x in)	Equiv. Dia. (in)	Pipe Class	
		A-III	A-IV
18 x 11	15	6'	11'
22 x 13	18	6'	11'
26 x 15	21	6'	13'
29 x 18	24	7'	15'
36 x 22	30	8'	15'
44 x 27	36	8'	14'
51 x 31	42	8'	15'
58 x 36	48	8'	15'
65 x 40	54	8'	15'
73 x 45	60	8'	14'
88 x 54	72	9'	14'

Based on Class R-5 bedding

HORIZONTAL ELLIPTICAL RCP

Pipe Size (in x in)	Equiv. Dia. (in)	Pipe Class	
		HE-III	HE-IV
14 x 23	18	12'	22'
19 x 30	24	15'	29'
22 x 34	27	15'	28'
24 x 38	30	15'	27'
27 x 42	33	15'	27'
29 x 45	36	15'	26'
32 x 49	39	15'	26'
34 x 54	42	15'	25'
38 x 60	48	15'	25'
43 x 68	54	15'	24'
48 x 76	60	15'	24'
53 x 83	66	15'	24'
58 x 91	72	15'	24'
63 x 98	78	15'	23'
68 x 106	84	15'	23'

Based on Class R-5 bedding

VERTICAL ELLIPTICAL RCP

Pipe Size (in x in)	Equiv. Dia. (in)	Pipe Class			
		VE-III	VE-IV	VE-V	VE-VI
23 x 14	18	10'	15'	22'	33'
30 x 19	24	10'	16'	34'	40'
34 x 22	27	11'	20'	40'	40'
38 x 24	30	12'	23'	40'	40'
42 x 27	33	15'	30'	40'	40'
45 x 29	36	15'	29'	40'	40'
49 x 32	39	15'	29'	40'	40'
54 x 34	42	15'	28'	40'	40'
60 x 38	48	15'	27'	40'	40'
68 x 43	54	15'	27'	40'	40'
76 x 48	60	15'	26'	40'	40'
83 x 53	66	15'	25'	40'	40'
91 x 58	72	15'	25'	40'	40'
98 x 63	78	15'	25'	40'	40'
106 x 68	84	15'	24'	40'	40'

Based on Class R-5 bedding

(1) USE BEDDING CLASS R-1 OR R-2 UNLESS SPECIFIED OTHERWISE.

(2) PLACE REMAINDER OF BEDDING AND BACKFILL MATERIALS AS SPECIFIED IN THE CONTRACT DOCUMENTS.

KEY

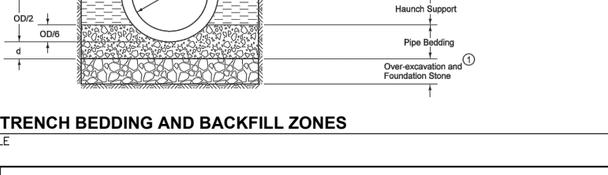
OD = OUTSIDE DIAMETER OF PIPE

OS = OUTSIDE SPAN OF PIPE

TW = TRENCH WIDTH AT TOP OF PIPE:
MIN.=OD+18"
MAX.=1.25xOD+12" OR
54" (WHICHEVER IS GREATER)

d = DEPTH OF BEDDING MATERIAL BELOW PIPE:
OD/8 OR OS/8, OR 4"
(WHICHEVER IS GREATER)

6 SW-102 RIGID GRAVITY PIPE TRENCH BEDDING
NOT TO SCALE



ALLOWABLE BURY DEPTH

DUCTILE IRON, AWWA C151, CLASS 52

Pipe Diameter (inches)	Class P-1 Bedding	Class P-2 Bedding	Class P-3 Bedding
4	40'	40'	40'
6	40'	40'	40'
8	40'	40'	40'
10	36'	40'	40'
12	31'	40'	40'
14	26'	40'	40'
16	23'	37'	40'
18	20'	34'	40'
20	18'	32'	40'
24	16'	29'	38
30	13'	23'	31'
36	13'	22'	30'
42	13'	21'	29'
48	13'	19'	27'
54	13'	19'	27'

PVC, AWWA C900, DR18

Pipe Diameter (inches)	Class P-1 Bedding	Class P-2 Bedding	Class P-3 Bedding
4	19'	23'	40'
6	19'	23'	40'
8	19'	23'	40'
10	19'	23'	40'
12	19'	23'	40'
14	19'	23'	40'
16	19'	23'	40'
18	19'	23'	40'
20	19'	23'	40'
24	19'	23'	40'

(1) PLACE REMAINDER OF BEDDING AND BACKFILL MATERIAL AS SPECIFIED IN THE CONTRACT DOCUMENTS.

KEY

OD = OUTSIDE DIAMETER OF PIPE

TW = TRENCH WIDTH AT TOP OF PIPE:
MIN.=OD/8 OR 4"
(WHICHEVER IS GREATER)

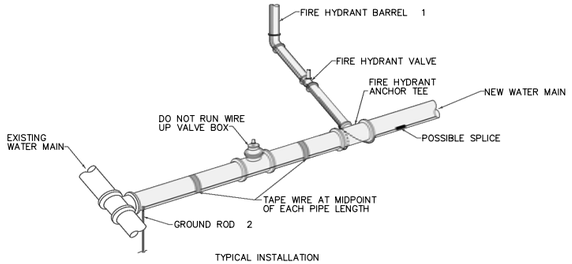
d = DEPTH OF BEDDING MATERIAL BELOW PIPE:
MIN = OD/8 OR 4"
(WHICHEVER IS GREATER)

3 SW-104 PRESSURE PIPE TRENCH BEDDING
NOT TO SCALE

NO.	REVISIONS	DATE	BY

COMMENT: DSG
DATE PLOTTED: 10/11/2022 4:46 PM
FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DETAIL SHEETS.DWG
PLOT DATE: 10/11/22
PLOTTED BY: JOHN SCHULTE

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE | POLK COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE DETAILS | SHEET NUMBER C8.0

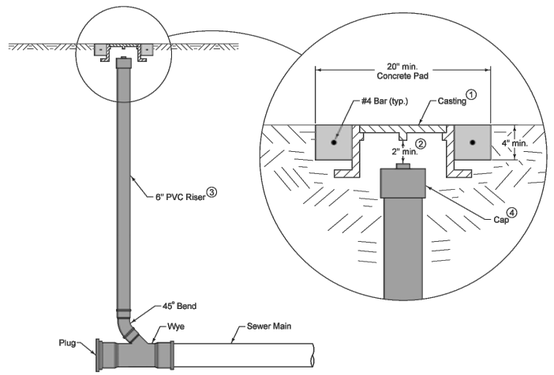


TYPICAL INSTALLATION

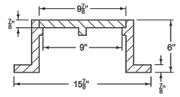
1. EXTEND TRACER WIRE UP FIRE HYDRANT BARREL TO INTERNAL TERMINALS OF TRACER WIRE STATION AND BACK DOWN. REFER TO WM-201 FOR DETAILS OF FIRE HYDRANT ASSEMBLY.
2. CLAMP TRACER WIRE TO GROUND ROD AT SYSTEM TERMINATION POINTS.

2 TRACER SYSTEM

NOT TO SCALE



CLEANOUT



CASTING 1
(Dimensions are nominal)

USE IN NON-TRAFFIC AREAS.

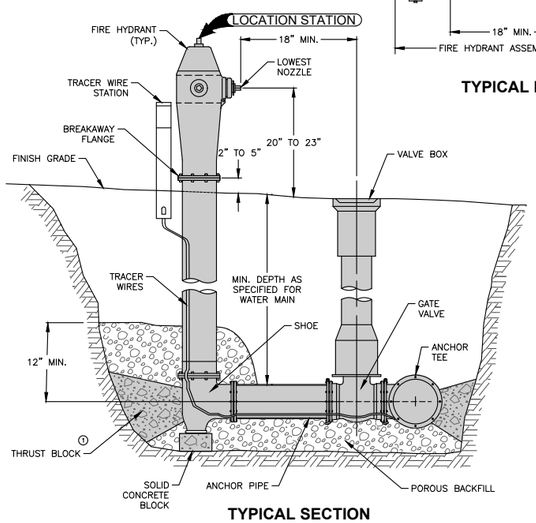
1. STANDARD DUTY CASTING COMPLYING WITH AASHTOM 306. MARK LID WITH "SANITARY" OR "SANITARY C.O."
2. DO NOT ALLOW CASTING TO BEAR ON TOP OF RISER PIPE
3. 6" PVC SERVICE PIPE
4. THREADED PVC CAP OR IRON BODY FERRULE WITH BRASS SCREW PLUG

3 SW-203 SANITARY CLEANOUT

NOT TO SCALE

NOTE:
HYDRANTS SHALL BE WATEROUS 5¼"PACER, LEFT OPENING, WITH TWO 2½" SIDE-POSITIONED HOSE NOZZLES, ONE 5" FRONT-POSITIONED PUMPER NOZZLE, FIVE SIDED WEATHERSHIELD OPERATING NUT, 5¼" VALVE OPENING, PAINTED YELLOW.

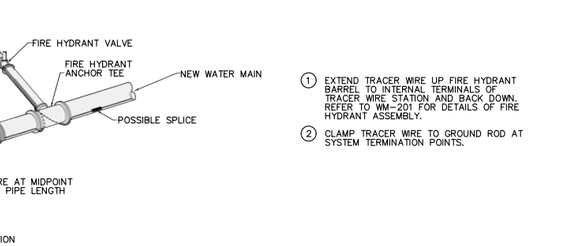
TYPICAL PLAN



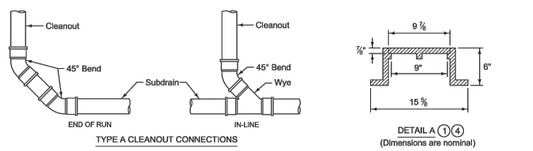
TYPICAL SECTION

5 FIRE HYDRANT ASSEMBLY

NOT TO SCALE



TYPE A-1 CLEANOUT | TYPE A-2 CLEANOUT | TYPE B CLEANOUT



TYPE A CLEANOUT CONNECTIONS

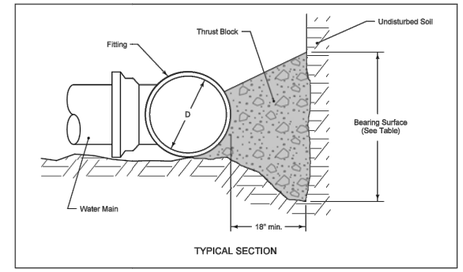
DETAIL A 1 4
(Dimensions are nominal)

USE IN NON-TRAFFIC AREAS.

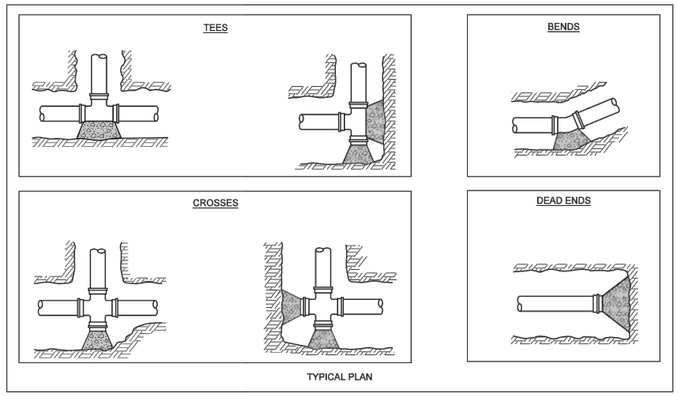
1. LIGHT DUTY CASTING. LABEL LID WITH "STORM" OR "STORM C.O."
2. DO NOT ALLOW CASTING TO BEAR ON TOP OF RISER PIPE; PROVIDE 2" CLEARANCE, MINIMUM.
3. A MANUFACTURED CLEANOUT MAY BE USED IN LIEU OF A TYPE B CLEANOUT, IF APPROVED BY THE ENGINEER.
4. DESIGN IS INTENDED FOR USE IN CONJUNCTION WITH 8" PVC RISER PIPE. OTHER SIEZED CAPS MAY BE USED WITH SMALLER PIPE, AS APPROVED BY THE ENGINEER.
5. PROVIDE TYPE G CASTING, AS REQUIRED TO FIT PIPE SIZE.
6. PVC RISER PIPE; MATCH DIAMETER OF SUBDRAIN (8" MAXIMUM)

4 SUBDRAIN CLEANOUTS

NOT TO SCALE



TYPICAL SECTION



TYPICAL PLAN

Extend thrust blocks to undisturbed soil. Excavation into trench wall may be necessary.

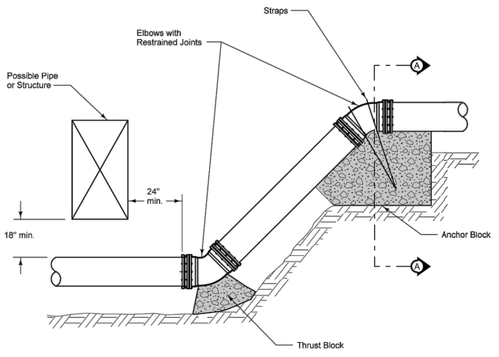
Form vertical surfaces of poured concrete thrust blocks except on bearing surface.

Encase all fittings in polyethylene wrap. Do not allow concrete to directly contact joints or fitting bolts.

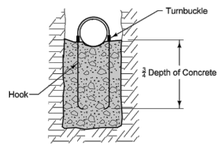
Diameter of Pipe, D (inches)	MINIMUM BEARING SURFACE (sf)				
	Bends				Tees and Dead Ends
	11¼°	22½°	45°	90°	
4	1	1	2	4	3
6	1	2	4	8	6
8	2	4	7	14	10
10	3	6	11	21	15
12	4	8	16	29	21
14	5	11	21	39	28
16	7	14	27	50	36
18	9	17	34	63	45
20	11	21	42	78	55
24	15	31	60	111	78
30	24	47	92	171	120
36	34	67	132	244	173

Minimum surface area based on water pressure of 150 psi and allowable soil pressure of 1,000 psf.

CHANGES IN PIPE DEPTH



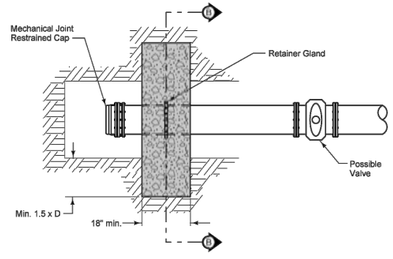
ELEVATION



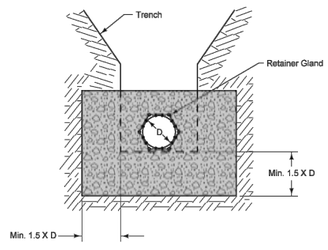
SECTION A-A

DEAD ENDS (ALTERNATE METHOD)

Use only when allowed by the Engineer, or when specified in the contract documents.



PLAN



SECTION B-B

1 THRUST BLOCKS

NOT TO SCALE

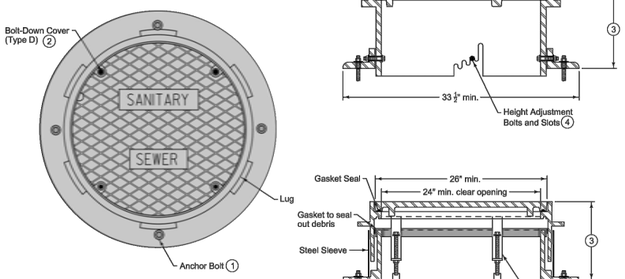
NO.	REVISIONS	DATE	BY

COMMENT: DWG
FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DETAIL SHEETS.DWG
FILE DATE: 10/11/2022 4:46 PM
DATE PLOTTED: 10/11/2022 4:46 PM
PLOTTED BY: Eric Smith
STYLE:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DETAILS	SHEET NUMBER C8.1

TYPE B: PCC
Three-piece floating casting for use in PCC paving and PCC boxouts

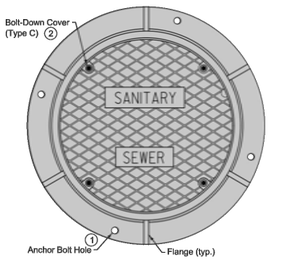
TYPE D: PCC
Three-piece floating casting with bolt-down cover for use in PCC paving and PCC boxouts



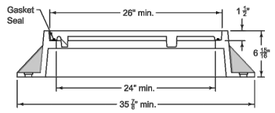
TYPICAL SECTION (5)

TYPE A
Two-piece fixed casting

TYPE C
Two-piece fixed casting with bolt-down cover (2)



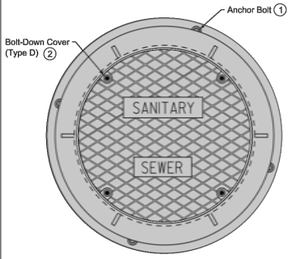
PLAN



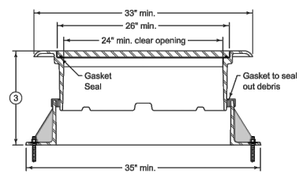
TYPICAL SECTION

TYPE B: HMA
Three-piece floating casting for use in HMA paving

TYPE D: HMA
Three-piece floating casting with bolt-down cover for use in HMA paving (2)



PLAN



TYPICAL SECTION

FRAME NOTES:
SIZE, SPACING, AND NUMBER OF LUGS AND FLANGES MAY VARY.

COVER NOTES:
ROUGHNESS PATTERN AND TEXT STYLE MAY VARY. MINIMUM ONE CONCEALED PICKHOLE

(1) ANCHOR THE LOWER FRAME OF ALL THREE-PIECE CASTINGS TO THE MANHOLE STRUCTURE. WHEN SPECIFIED IN THE CONTRACT DOCUMENTS, ANCHOR THE FRAME OF TWO-PIECE CASTINGS TO THE MANHOLE STRUCTURE. IF CASTING FRAME DOES NOT INCLUDE ANCHOR HOLES OR SLOTS, DRILL FOUR 7/8" DIAMETER HOLES, EQUALLY SPACED AROUND THE FRAME.

(2) IF SPECIFIED, FURNISH BOLT DOWN FRAME AND COVER WITH FOUR 1/2" MINIMUM DIAMETER STAINLESS STEEL, HEX NUT, RECESSED CAP SCREWS. SECURE COVER WITH SCREWS, WASHERS, AND RUBBER GASKET SEALS.

(3) CASTING HEIGHT VARIES. MINIMUM ADJUSTMENT RANGE OF 4 INCHES.

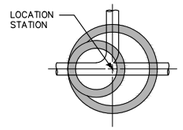
(4) SET CASTING AT PROPER GRADE USING THE ADJUSTMENT SLOTS OR ADJUSTMENT MECHANISM. REMOVE BOLTS OR MECHANISM UPON COMPLETION OF PAVING.

(5) HEIGHT ADJUSTMENT METHOD MAY VARY; TWO OPTIONS ARE SHOWN.

3 SW-601 SANITARY SEWER MANHOLE
NOT TO SCALE

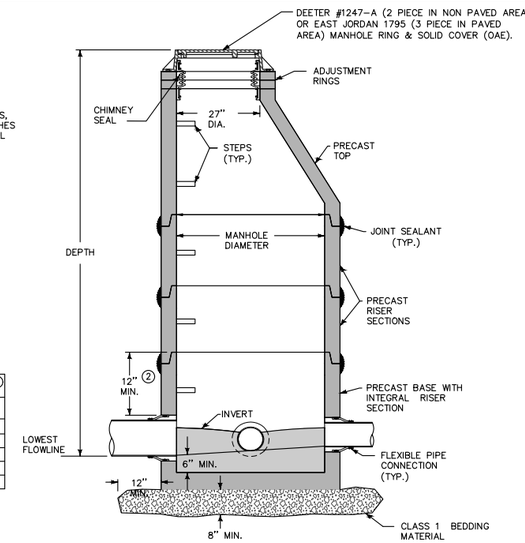
(1) FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES OF CONCRETE BETWEEN VERTICAL EDGES OF PIPE OPENINGS.

(2) 12 INCH MINIMUM RISER HEIGHT ABOVE ALL PIPE OPENINGS.



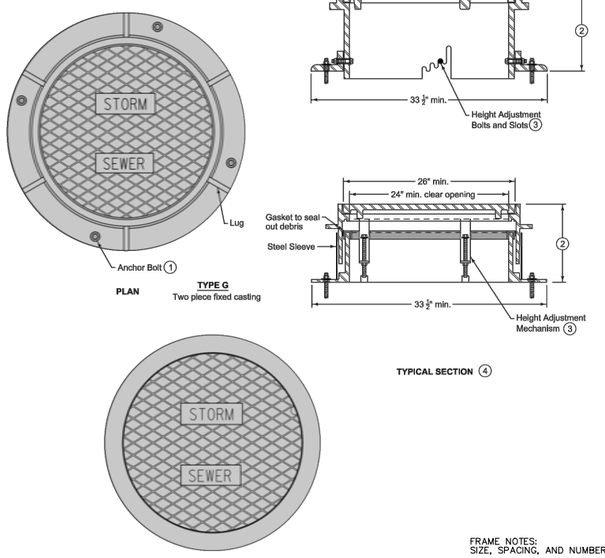
PLAN

MANHOLE DIAMETER (INCHES)	MAXIMUM PIPE DIAMETER (1) (INCHES) FOR 2 PIPES	
	AT 180° SEPARATION	AT 90° SEPARATION
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42



1 SW-301 MANHOLE
NOT TO SCALE

TYPE F: PCC
Three-piece floating casting for use in PCC paving and PCC boxouts

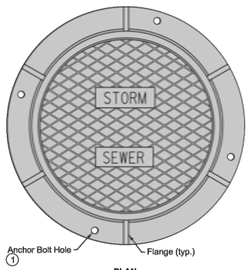


PLAN

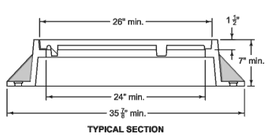
TYPE G
Two piece fixed casting

TYPICAL SECTION (4)

TYPE E
Two-piece fixed casting

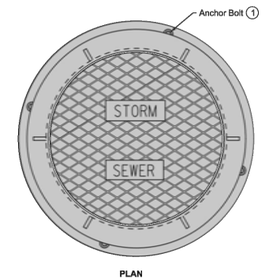


PLAN

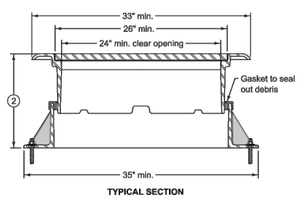


TYPICAL SECTION

TYPE F: HMA
Three-piece floating casting for use in HMA paving



PLAN



TYPICAL SECTION

FRAME NOTES:
SIZE, SPACING, AND NUMBER OF LUGS AND FLANGES MAY VARY.

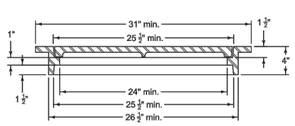
COVER NOTES:
ROUGHNESS PATTERN AND TEXT STYLE MAY VARY. MINIMUM ONE PICKHOLE

(1) ANCHOR THE LOWER FRAME OF ALL THREE-PIECE CASTINGS TO THE MANHOLE STRUCTURE. WHEN SPECIFIED IN THE CONTRACT DOCUMENTS, ANCHOR THE FRAME OF TWO-PIECE CASTINGS TO THE MANHOLE STRUCTURE. IF CASTING FRAME DOES NOT INCLUDE ANCHOR HOLES OR SLOTS, DRILL FOUR 7/8" DIAMETER HOLES, EQUALLY SPACED AROUND THE FRAME.

(2) CASTING HEIGHT VARIES. MINIMUM ADJUSTMENT RANGE OF 4 INCHES.

(3) SET CASTING AT PROPER GRADE USING THE ADJUSTMENT SLOTS OR ADJUSTMENT MECHANISM. REMOVE BOLTS OR MECHANISM UPON COMPLETION OF PAVING.

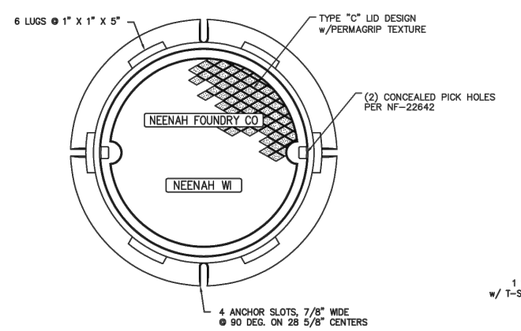
(4) HEIGHT ADJUSTMENT METHOD MAY VARY; TWO OPTIONS ARE SHOWN.

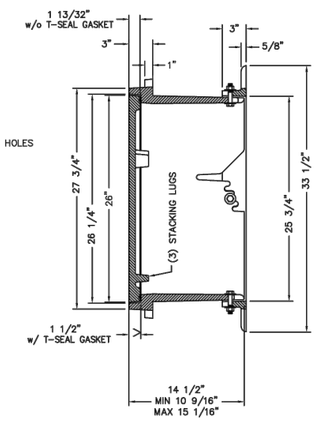


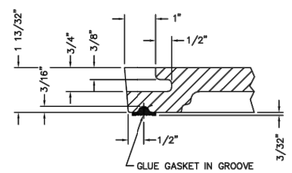
TYPICAL SECTION

4 SW-602 STORM SEWER MANHOLE
NOT TO SCALE

OR APPROVED EQUAL







T-SEAL / CONCEALED PICK DETAIL
HALF SCALE
(GASKET NO. 02797)

COMPONENT NOS.: FRAME 1188-0110; FLANGE 1188-8990
LID 1642-0239
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT
WEIGHT: FRAME 275#; FLANGE 95#; LID 133#

DR. CSM	SCALE 1/8"=1"	TITLE: R-1673-B FRAME, FLANGE AND LID	
CH.			
APP.	DIM CHK.	NEENAH FOUNDRY COMPANY NEENAH WISCONSIN 54956	NF-1673 575 B
DATE 09-25-2007			

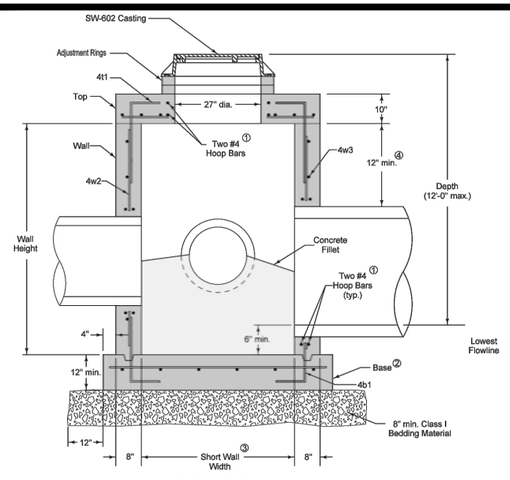
CAD DWG. REF: 1673 575.DWG-- 1

2 SW-401 MANHOLE PEDESTRIAN COVER
NOT TO SCALE

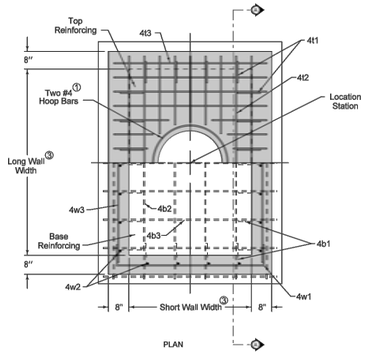
NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DETAIL SHEETS.DWG
FILE DATE: 10/11/22
PLOTTED: 10/11/2022 4:46 PM
PLOTTED BY: BRIAN SCHULTE
COMMENT: DWG

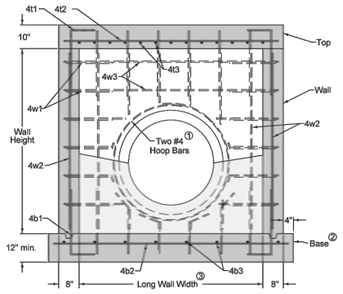
DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DETAILS	SHEET NUMBER C8.2



TYPICAL SECTION



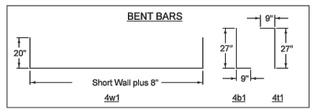
PLAN



SECTION A-A

REINFORCING BAR LIST					
Mark	Size	Location	Shape	Length	Spacing
4t1	4	Top	⌐¬	36"	12"
4t2	4	Top	—	Long Wall plus 12"	6"
4t3	4	Top	—	Short Wall plus 12"	6"
4b1	4	Base	L	36"	12"
4b2	4	Base	—	Long Wall plus 18"	12"
4b3	4	Base	—	Short Wall plus 18"	12"
4w1	4	Walls	⌐¬	Short Wall plus 48"	12"
4w2	4	Walls	—	Wall Height minus 4"	12"
4w3	4	Walls	—	Long Wall plus 12"	12"

BENT BARS



ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.

① PROVIDE TWO #4 HOOP BARS AT TOP OPENING AND AT ALL PIPE OPENINGS.

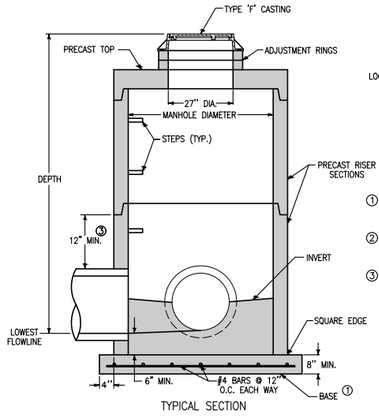
② CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF THE BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

③ WALL WIDTHS VARY WITH PIPE DIAMETER AND RANGE FROM 4 FEET MINIMUM TO 9 FEET MAXIMUM. PROVIDE 12 INCHES OF WALL WIDTH (MINIMUM) EACH SIDE OF PIPE OPENING.

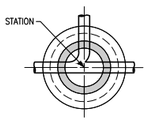
④ 12 INCH MINIMUM WALL HEIGHT ABOVE ALL PIPES.

4 SW-403 DEEP WELL RECTANGULAR STORM SEWER MANHOLE

NOT TO SCALE



TYPICAL SECTION



PLAN

① CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH BOTTOM RISER, THE FOOTPRINT OF THE BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE RISER.

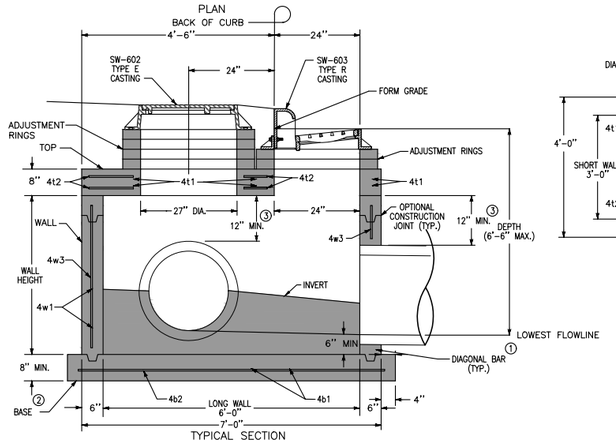
② FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES OF CONCRETE BETWEEN VERTICAL EDGES OF PIPE OPENINGS.

③ 12 INCH MINIMUM RISER HEIGHT ABOVE ALL PIPE OPENINGS.

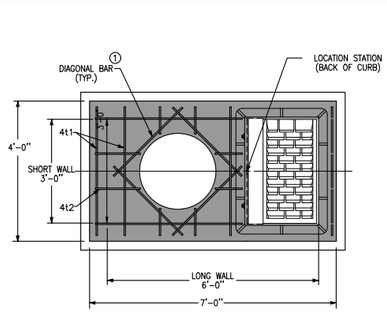
MANHOLE DIAMETER (INCHES)	MAXIMUM PIPE DIAMETER ② (INCHES) FOR 2 PIPES	
	AT 180° SEPARATION	AT 90° SEPARATION
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

1 SW-401 STORM SEWER MANHOLE

NOT TO SCALE



TYPICAL SECTION



① INSTALL FOUR #4 DIAGONAL BARS AT MANHOLE OPENING AND AT ALL PIPE OPENINGS.

REFER TO SW-514 FOR BOXOUT DETAILS.

① INSTALL FOUR #4 DIAGONAL BARS AT MANHOLE OPENING AND AT ALL PIPE OPENINGS.

② CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF THE BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

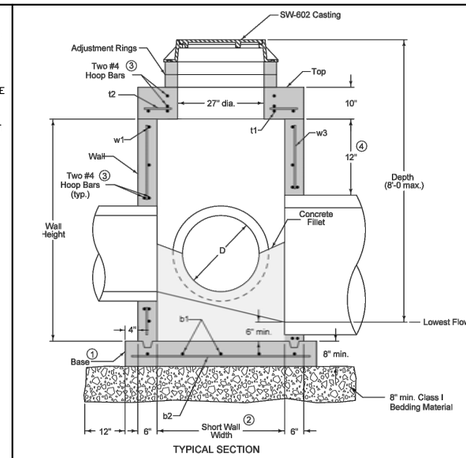
③ 12 INCH MINIMUM WALL HEIGHT ABOVE ALL PIPES.

MAXIMUM PIPE DIAMETERS		
PIPE LOCATION	PRECAST STRUCTURE	CAST-IN-PLACE STRUCTURE
SHORT WALL	24"	30"
LONG WALL	30"	36"

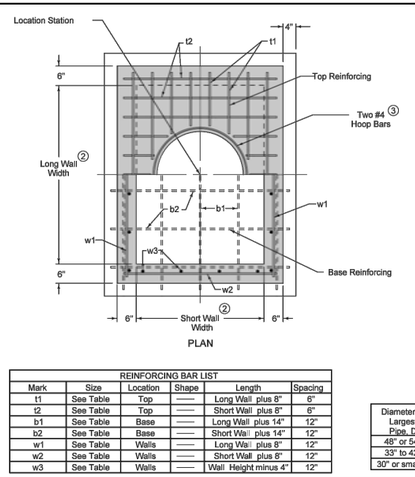
REINFORCING BAR LIST						
MARK	SIZE	LOCATION	SHAPE	COUNT	LENGTH	SPACING
4t1	4	TOP	——	12	3'-8"	12"
4t2	4	TOP	——	8	4'-2"	12"
4b1	4	BASE	——	7	4'-2"	13"
4b2	4	BASE	——	5	7'-2"	10"
4w1	4	SHORT WALLS	——	VARIES	3'-8"	12"
4w2	4	LONG WALLS	——	VARIES	6'-8"	12"
4w3	4	WALLS	——	18	WALL HEIGHT MINUS 4"	13"

5 SW-503 SINGLE GRATE INTAKE WITH MANHOLE

NOT TO SCALE



TYPICAL SECTION



PLAN

ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.

① CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF THE BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

② WALL WIDTHS VARY WITH PIPE DIAMETER AND RANGE FROM 40" MINIMUM TO 77" MAXIMUM. PROVIDE 6" OF WALL WIDTH (MINIMUM) EACH SIDE OF PIPE OPENING.

③ PROVIDE TWO #4 HOOP BARS AT TOP OPENING AND AT ALL PIPE OPENINGS.

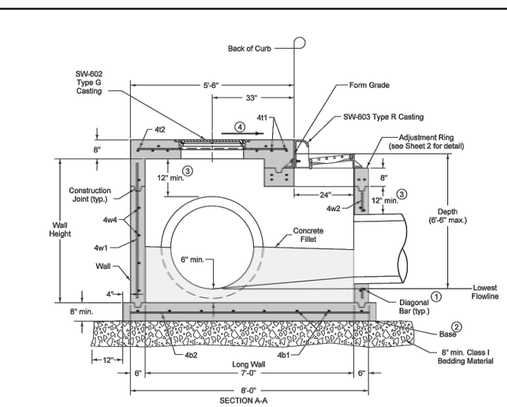
④ 12 INCH MINIMUM WALL HEIGHT ABOVE ALL PIPES.

REINFORCING BAR LIST					
Mark	Size	Location	Shape	Length	Spacing
t1	See Table	Top	——	Long Wall plus 8"	6"
t2	See Table	Top	——	Short Wall plus 8"	6"
b1	See Table	Base	——	Long Wall plus 14"	12"
b2	See Table	Base	——	Short Wall plus 14"	12"
w1	See Table	Walls	——	Long Wall plus 8"	12"
w2	See Table	Walls	——	Short Wall plus 8"	12"
w3	See Table	Walls	——	Wall Height minus 4"	12"

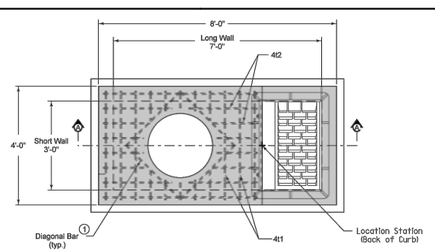
Diameter of Largest Pipe, D	Minimum Bar Size
48" or 54"	6
33" to 42"	5
30" or smaller	4

2 SW-402 RECTANGULAR STORM SEWER MANHOLE

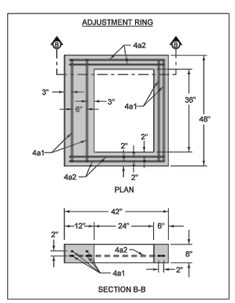
NOT TO SCALE



SECTION A-A



PLAN



REFER TO SW-514 FOR BOXOUT DETAILS

① INSTALL FOUR #4 DIAGONAL BARS AT MANHOLE OPENING AND AT ALL PIPE OPENINGS.

② CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF THE BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

③ 12" MINIMUM WALL HEIGHT ABOVE ALL PIPES.

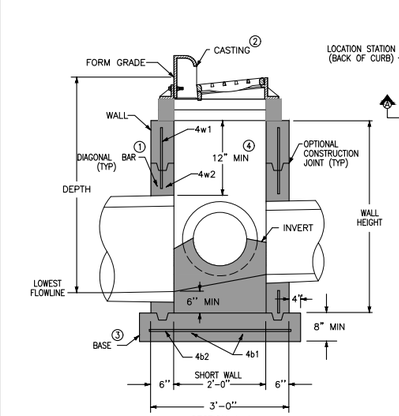
④ SLOPE OF 1.5% OR AS SPECIFIED IN THE CONTRACT DOCUMENTS.

REINFORCING BAR LIST						
Mark	Size	Location	Shape	Count	Length	Spacing
4t1	4	Top	——	11	3'-8"	6"
4t2	4	Top	——	8	5'-2"	6"
4b1	4	Base	——	8	4'-2"	13"
4b2	4	Base	——	5	6'-2"	10"
4a1	4	Adj. Ring	——	8	3'-8"	See Adj. Ring Plan
4a2	4	Adj. Ring	——	4	3'-2"	See Adj. Ring Plan
4w1	4	Walls	——	13	Wall Height minus 4"	12"
4w2	4	Walls	——	11	Wall Height minus 10"	12"
4w3	4	Long Walls	——	Varies	7'-8"	12"
4w4	4	Short Walls	——	Varies	3'-8"	12"

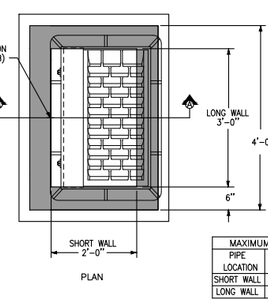
MAXIMUM PIPE DIAMETERS		
Pipe Location	Precast Structure	Cast-in-place Structure
Short Wall	18"	24"
Long Wall	30"	36"

6 SW-504 SINGLE GRATE INTAKE WITH FLUSH TOP MANHOLE

NOT TO SCALE



SECTION A-A



PLAN

① INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.

② TYPE R UNLESS TYPE Q IS SPECIFIED IN THE CONTRACT DOCUMENTS.

③ CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF THE BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

④ 12 INCH MINIMUM WALL HEIGHT ABOVE ALL PIPES.

MAXIMUM PIPE DIAMETERS		
PIPE LOCATION	PRECAST STRUCTURE	CAST-IN-PLACE STRUCTURE
SHORT WALL	15"	18"
LONG WALL	24"	30"

REINFORCING BAR LIST						
MARK	SIZE	LOCATION	SHAPE	LENGTH	COUNT	SPACING
4w1	4	WALLS	——	WALL HEIGHT MINUS 4"	14	12"
4w2	4	LONG WALLS	——	3'-8"	VARIES	12"
4w3	4	SHORT WALLS	——	2'-8"	VARIES	12"
4b1	4	BASE	——	4'-2"	4	10"
4b2	4	BASE	——	3'-2"	5	10"

3 SW-501 INTAKE

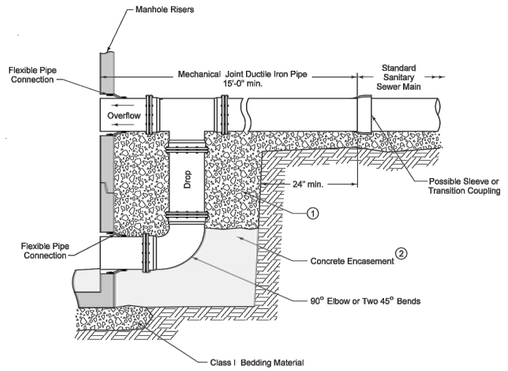
NOT TO SCALE

NO.	REVISIONS	BY	DATE

COMMENT:
PROJ:

FILE: H:\2021\2202086\DWG\SITE PLAN\2202086-DETAIL SHEETS.DWG
PLOT DATE: 10/11/22
COUNTY: POLK
DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE

POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DETAILS	SHEET NUMBER C8.3

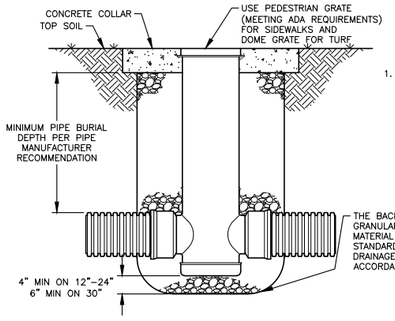


CONSTRUCT DROP AND OVERFLOW FROM DUCTILE IRON PIPE OF SAME DIAMETER SPECIFIED FOR SEWER MAIN. PROVIDE MECHANICAL JOINTS FOR ALL DUCTILE IRON PIPE AND FITTINGS.

1. PLACE CLASS I BEDDING MATERIAL, CLSM, FLOWABLE MORTAR, OR CONCRETE FROM TOP OF ELBOW TO BOTTOM OF SEWER MAIN.
2. ENCASE ELBOW IN CONCRETE. 12" MINIMUM ON ALL SIDES.

5 SW-307 EXTERNAL DROP CONNECTION FOR SANITARY SEWER MANHOLE

NOT TO SCALE

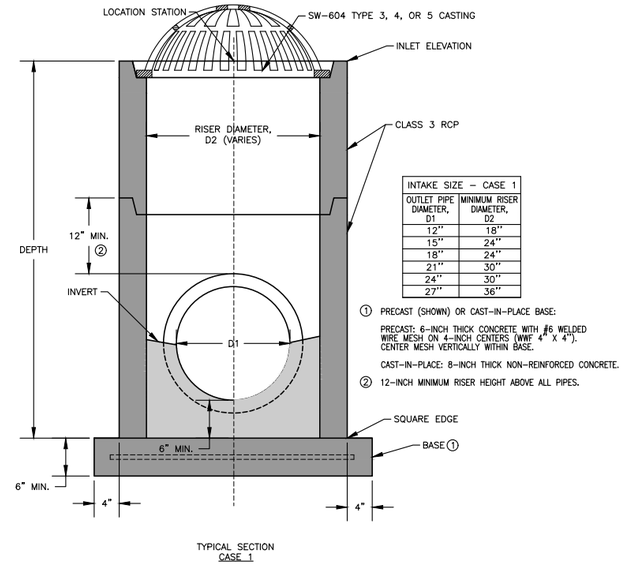


1. GRATES/SOLID COVERS SHALL MEET H-20 LOAD RATING FOR 30" PEDESTRIAN & 12" – 30" STANDARD & SOLID

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS II MATERIAL AS DEFINED IN ASTM D2321, OR AS DETERMINED BY LOCAL STANDARDS & SITE ENGINEER. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

6 HDPE INTAKE

NOT TO SCALE



INTAKE SIZE – CASE 1	
OUTLET PIPE DIAMETER, D1	MINIMUM RISER DIAMETER, D2
12"	18"
15"	24"
18"	24"
21"	30"
24"	30"
27"	36"

TYPICAL SECTION
CASE 1

① PRECAST (SHOWN) OR CAST-IN-PLACE BASE:

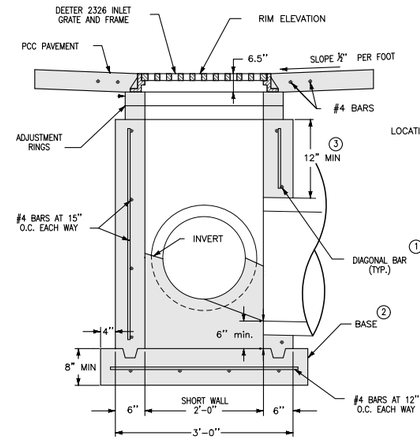
PRECAST: 6-INCH THICK CONCRETE WITH #6 WELDED WIRE MESH ON 4-INCH CENTERS (WWF 4" X 4").

CAST-IN-PLACE: 8-INCH THICK NON-REINFORCED CONCRETE.

② 12-INCH MINIMUM RISER HEIGHT ABOVE ALL PIPES.

3 SW-512 CIRCULAR AREA INTAKE

NOT TO SCALE

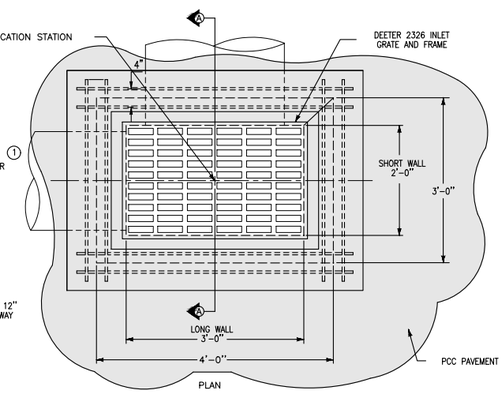


SECTION A-A

① INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.

② CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF THE BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

③ 12 INCH MINIMUM WALL HEIGHT ABOVE ALL PIPES.



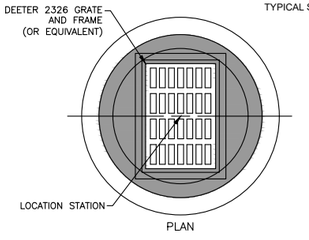
PLAN

MAXIMUM PIPE DIAMETERS		
PIPE LOCATION	PRECAST STRUCTURE	CAST-IN-PLACE STRUCTURE
SHORT WALL	15"	18"
LONG WALL	24"	30"

1 SW-511 RECTANGULAR AREA INTAKE WITHIN PCC PAVEMENT

NOT TO SCALE

TYPICAL SECTION



PLAN

REFER TO SW-514 FOR BOXOUT DETAILS

① SW-603 TYPE R UNLESS TYPE Q IS SPECIFIED IN THE CONTRACT DOCUMENTS

② CAST-IN-PLACE BASE SHOWN. BASE MAY BE SQUARE. IF BASE IS PRECASE INTEGRAL WITH WALLS, THE FOOTPRINT OF THE BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

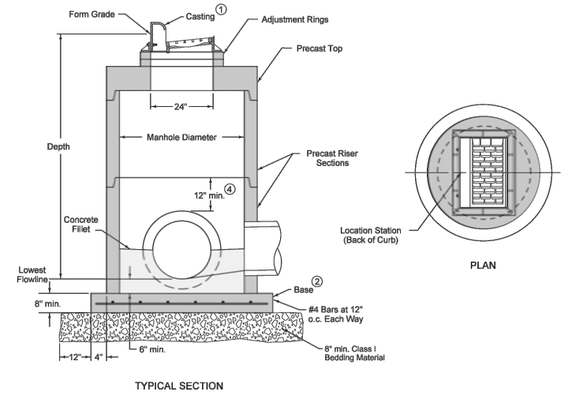
③ FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12" OF CONCRETE BETWEEN VERTICAL EDGES OF PIPE OPENINGS.

④ 12" MINIMUM RISER HEIGHT ABOVE ALL PIPES.

MANHOLE DIAMETER (INCHES)	MAXIMUM PIPE DIAMETER ③ (INCHES) FOR 2 PIPES	
	AT 180° SEPARATION	AT 90° SEPARATION
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

4 SW-502 CIRCULAR SINGLE GRATE INTAKE (MODIFIED)

NOT TO SCALE



TYPICAL SECTION

PLAN

Refer to SW-514 for boxout details.

① SW-603 Type R unless Type Q is specified in the contract documents.

② Cast-in-place base shown. Base may be square. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.

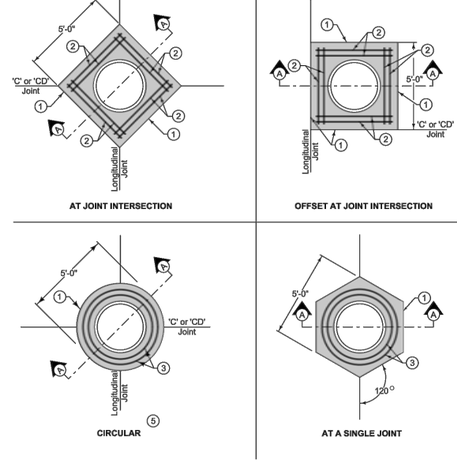
③ For additional configurations, maintain a minimum of 12 inches of concrete between vertical edges of pipe openings.

④ 12 inch minimum riser height above all pipes.

Manhole Diameter (inches)	Maximum Pipe Diameter ③ (inches) for 2 Pipes	
	at 180° Separation	at 90° Separation
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

7 SW-502 CIRCULAR SINGLE GRATE INTAKE

NOT TO SCALE



Construct boxout with Class C concrete or match pavement class. Minimum 2 inches clear on reinforcement. Minimum 12 inches of concrete between outside of casting and nearest joint. Center casting within boxout area if possible.

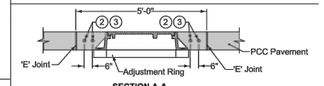
① 'KT-1', 'KT-2', 'BT-1', or 'BT-2' joint if three-piece floating casting (SW 601 Type B and D or SW-602 Type F) is used. 'E' joint if two-piece fixed casting (SW 601 Type A and C or SW-602 Type E) is used.

② 4 foot 8 inch (typ.) #4 bar. Place at mid-slab.

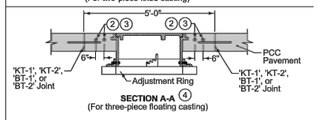
③ #4 hoops (variable length). Place at mid-slab.

④ No boxout is required for three-piece floating castings (SW 601 Type B and D or SW-602 Type F). If a boxout is used with a three-piece casting, construct as detailed in Section A-A for three-piece floating casting.

⑤ If a circular boxout is cut and extracted after PCC construction, a 'B' joint may be substituted for the 'E' joint if approved by the Engineer.



SECTION A-A
(For two-piece fixed casting)



SECTION A-A ④
(For three-piece floating casting)

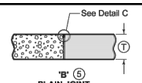
2 PV-10 MANHOLE BOXOUTS IN PCC PAVEMENT

NOT TO SCALE

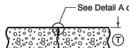
NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DETAIL SHEETS.DWG
FILE DATE: 10/17/22
PLOTTED BY: ERIC SCHULTE
DATE PLOTTED: 10/11/2022 4:46 PM
COMMENT: DXC

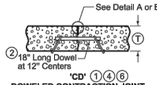
DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DETAILS	SHEET NUMBER C8.4



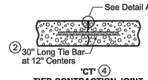
'B' (5)
PLAIN JOINT
(Abutting Pavement Slabs)



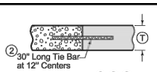
'C' (6)
CONTRACTION JOINT



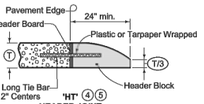
'CD' (1)(4)(6)
DOWELED CONTRACTION JOINT



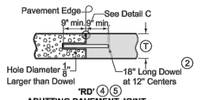
'CT' (4)
TIED CONTRACTION JOINT



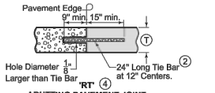
'DW' (3)(4)(7)
DAY'S WORK JOINT(Non-working)



'HT' (4)(5)
HEADER JOINT
(End Rigid Pavement)



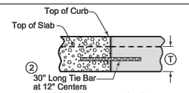
'RD' (4)(5)
ABUTTING PAVEMENT JOINT



'RT'
ABUTTING PAVEMENT JOINT RIGID TIE

TRANSVERSE CONTRACTION

1. See dowel assemblies for fabrication details.
2. See Bar Size Table for Contraction Joints on Sheet 2.
3. Locate 'DW' joint at a mid-panel location between future 'C' or 'CD' joints. Place no closer than 5 feet to a 'C' or 'CD' joint.
4. Place bars within the limits shown under dowel assemblies.
5. Edge with 1/8 inch tool for length of joint. For HT joint, remove header block and board when second slab is placed.
6. Unless specified otherwise, use 'CD' transverse contraction joints in mainline pavement when (T) is greater or equal to 8 inches. Use 'C' joints when (T) is less than 8 inches.
7. 'RT' joint may be used in lieu of 'DW' joint at the end of the days work. Remove any pavement damaged due to the drilling at no additional cost to the Contracting Authority.

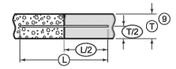


'DW - CG' (3)(4)
DAY'S WORK JOINT
CURB AND GUTTER UNIT

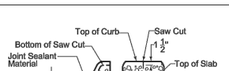
SUDAS | IOWADOT | REVISION 11 04-19-22
FIGURE 7010.101 | STANDARD ROAD PLAN | PV-101 | SHEET 1 of 8
REVISIONS: Modified circle note 33.
Paul D. Wiegand — BUREAU DIRECTOR
Kevin Merchant — DESIGN SERVICES ENGINEER

JOINTS

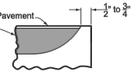
FIGURE 7010.101 SHEET 1 OF 8



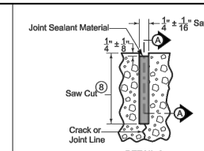
BAR PLACEMENT
(Applies to all joints unless otherwise detailed.)



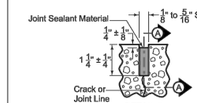
'C' JOINT IN CURB
(Match 'CT', 'CD', or 'C' joint in pavement.)



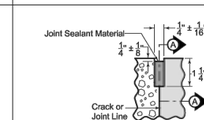
SECTION A-A
(Detail at Edge of Pavement)



DETAIL A
(Saw cut formed by conventional concrete sawing equipment.)



DETAIL B
(Saw cut formed by approved early concrete sawing equipment.)



DETAIL C

8. Saw 'CD' joint to a depth of T/3 ± 1/4"; saw 'C' joint to a depth of T/4 ± 1/4".
9. When tying into old pavement, (T) represents the depth of sound PCC.

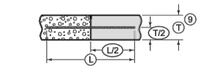
BAR SIZE TABLE FOR CONTRACTION JOINTS			
(T)	Solid Dowel Diameter	Tubular Dowel Diameter	Tie Bar Size
< 8"	3/4"	7/8"	#6
≥ 8" but < 10"	1 1/4"	1 3/8"	#10
≥ 10"	1 1/2"	1 5/8"	#11
Tubular Dowel Bars will not be allowed for RD joints.			

SUDAS | IOWADOT | REVISION 11 04-19-22
FIGURE 7010.101 | STANDARD ROAD PLAN | PV-101 | SHEET 2 of 8
REVISIONS: Modified circle note 33.
Paul D. Wiegand — BUREAU DIRECTOR
Kevin Merchant — DESIGN SERVICES ENGINEER

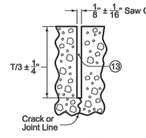
JOINTS

FIGURE 7010.101 SHEET 2 OF 8

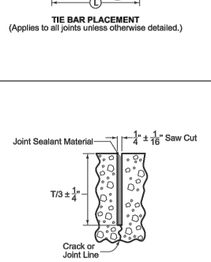
TRANSVERSE CONTRACTION



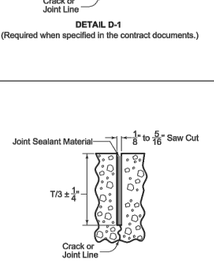
TIE BAR PLACEMENT
(Applies to all joints unless otherwise detailed.)



DETAIL D-1
(Required when specified in the contract documents.)

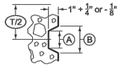


DETAIL D-2
(Required when the Department of Transportation is not the Contracting Authority, or when specified in the contract documents)



DETAIL D-3
(Required when the Department of Transportation is the Contracting Authority, or when specified in the contract documents)

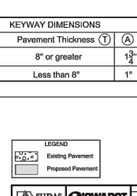
9. When tying into old pavement, (T) represents the depth of sound PCC.
13. Sealant or cleaning not required.



DETAIL E

KEYWAY DIMENSIONS			
Keyway Type	Pavement Thickness (T)	(A)	(B)
Standard	8" or greater	1 3/4"	2 3/4"
Narrow	Less than 8"	1"	2"

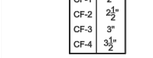
LONGITUDINAL CONTRACTION



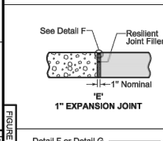
SUDAS | IOWADOT | REVISION 11 04-19-22
FIGURE 7010.101 | STANDARD ROAD PLAN | PV-101 | SHEET 4 of 8
REVISIONS: Modified circle note 33.
Paul D. Wiegand — BUREAU DIRECTOR
Kevin Merchant — DESIGN SERVICES ENGINEER

JOINTS

FIGURE 7010.101 SHEET 4 OF 8

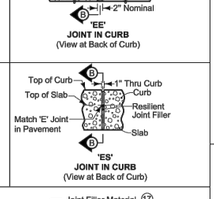


DOWEL PLACEMENT
(Applies to all joints unless otherwise detailed.)

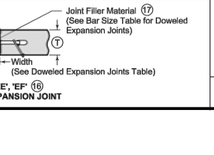


'CF' JOINT

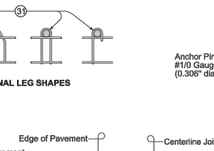
TYPE	WIDTH
CF-1	2"
CF-2	2 1/2"
CF-3	3"
CF-4	3 1/2"



'E'
JOINT IN CURB
(View at Back of Curb)

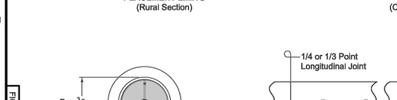


'EE'
JOINT IN CURB
(View at Back of Curb)

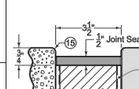


'ES'
JOINT IN CURB
(View at Back of Curb)

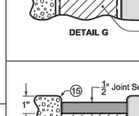
'E'
1" EXPANSION JOINT



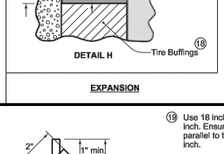
'ED', 'EE', 'EF' (16)
DOWELED EXPANSION JOINT



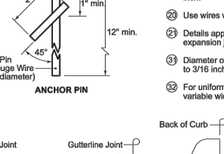
SECTION B-B



DETAIL F



DETAIL G



DETAIL H

EXPANSION

14. See Bar Size Table for Doweled Expansion Joints.
15. Edge with 1/4 inch tool for length of joint indicated if formed; edging not required when cut with diamond blade saw.
16. See Dowel Assemblies for fabrication details and placement limits. Coat the free end of dowel bar to prevent bond with pavement. At intake locations, dowel bars may be cast-in-place.
17. Predrill or preform holes in joint material for appropriate dowel size.
18. Compact tire buffings by spading with a square-nose shovel.

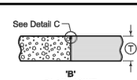
DOWELED EXPANSION JOINTS		
TYPE	WIDTH	FILLER MATERIAL (17)
ED	1"	Resilient (Detail F)
EE	2"	Flexible Foam (Detail F)
EF	3 1/2"	Flexible Foam (Detail G)

BAR SIZE TABLE FOR DOWELED EXPANSION JOINTS				
(T)	< 8"	≥ 8" but < 10"	≥ 10"	
Dowel Diameter	3/4"	1 1/4"	1 1/2"	
Tubular Dowel Bars will not be allowed for expansion joints.				

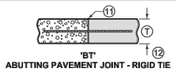
SUDAS | IOWADOT | REVISION 11 04-19-22
FIGURE 7010.101 | STANDARD ROAD PLAN | PV-101 | SHEET 5 of 8
REVISIONS: Modified circle note 33.
Paul D. Wiegand — BUREAU DIRECTOR
Kevin Merchant — DESIGN SERVICES ENGINEER

JOINTS

FIGURE 7010.101 SHEET 5 OF 8

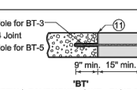


'B'
PLAIN JOINT
(Abutting Pavement Slabs)



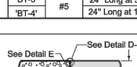
'BT'
ABUTTING PAVEMENT JOINT - RIGID TIE

(T)	Joint	Bars	Bar Length and Spacing
< 8"	'BT-1'	#4	36" Long at 30" Centers
		#5	30" Long at 30" Centers
≥ 8"	'BT-2'	#5	36" Long at 30" Centers

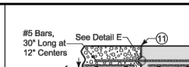


'BT'
ABUTTING PAVEMENT JOINT - RIGID TIE (Drilled)

(T)	Joint	Bars	Bar Length and Spacing
< 8"	'BT-5'	#4	24" Long at 30" Centers
	'BT-3'	#5	24" Long at 30" Centers
≥ 8"	'BT-4'		24" Long at 15" Centers

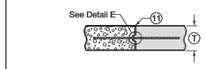


'K'
KEYED JOINT FOR ADJACENT SLABS
(Where T is 8" or more)



'KS-1'
[Single Reinforced Pavement (Bridge Approach)]

'KS-2'
[Double Reinforced Pavement (Bridge Approach)]

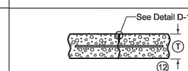


'KT'
ABUTTING PAVEMENT JOINT - KEYWAY TIE

(T)	Joint	Bars	Bar Length and Spacing
< 8"	'KT-1'	#4	30" Long at 30" Centers
≥ 8"	'KT-2'	#5	30" Long at 30" Centers
	'KT-3'		30" Long at 15" Centers

LONGITUDINAL CONTRACTION

16. Bar supports may be necessary for fixed form paving to ensure the bar remains in a horizontal position in the plastic concrete.
11. Sawing or sealing of joint not required.
12. The following joints are interchangeable, subject to the pouring sequence:
'BT-1', 'L-1', and 'KT-1'
'KT-2' and 'L-2'
'KT-3' and 'L-3'



'L'
CONTRACTION JOINT

(T)	Joint	Bars	Bar Length and Spacing
< 8"	'L-1'	#4	36" Long at 30" Centers
≥ 8"	'L-2'	#5	36" Long at 30" Centers
	'L-3'		36" Long at 15" Centers

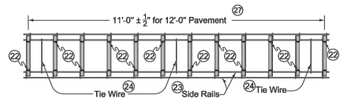
SUDAS | IOWADOT | REVISION 11 04-19-22
FIGURE 7010.101 | STANDARD ROAD PLAN | PV-101 | SHEET 3 of 8
REVISIONS: Modified circle note 33.
Paul D. Wiegand — BUREAU DIRECTOR
Kevin Merchant — DESIGN SERVICES ENGINEER

JOINTS

FIGURE 7010.101 SHEET 3 OF 8

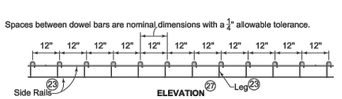
LONGITUDINAL CONTRACTION

CONTRACTION JOINTS

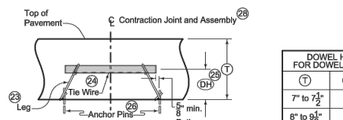


PLAN

Spaces between dowel bars are nominal dimensions with a 1/4" allowable tolerance.



ELEVATION



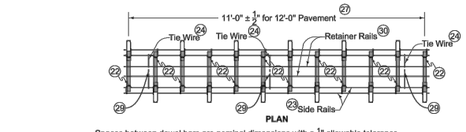
LONGITUDINAL SECTION

DOWEL HEIGHT AND DIAMETER FOR DOWELED CONTRACTION JOINTS			
(T)	(DH)(29)	Diameter (Solid)	Diameter (Tubular)
7" to 7 1/2"	3 1/2"	3/4"	7/8"
8" to 9 1/2"	4 1/2"	1 1/4"	1 3/8"
10" to 11 1/2"	5 1/4"	1 1/2"	1 5/8"
12" to 13"	6 1/4"	1 3/4"	1 7/8"
Tubular Dowel Bars will not be allowed for RD joints.			

DOWEL ASSEMBLIES (19)(20)(21)

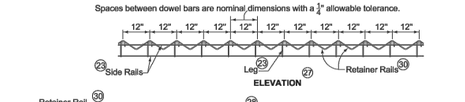
19. Use 18 inch long dowel bars with a tolerance of ± 1/8 inch. Ensure the centerlines of individual dowels are parallel to the other dowels in the assembly within ± 1/8 inch.
20. Use wires with a minimum tensile strength of 50 ksi.
21. Details apply to both transverse contraction and expansion joints.
22. Weld alternately throughout.
23. 0.306 inch diameter wire. Wire sizes shown are the minimum required.
24. Maximum 0.177 inch diameter wire, welded or friction fit to upper side rail, both sides.
25. Measured from the centerline of dowel bar to bottom of lower side rail + 1/4 inch.
26. Per lane width, install a minimum of 8 anchor pins evenly spaced (4 per side), to prevent movement of assembly during construction. Anchor assemblies placed on pavement or PCC base with devices approved by the Engineer.
27. If dowel basket assemblies are required for curbed pavements, the assembly length is based on the jointing layout. See PV-101, sheet 8.
28. Ensure dowel basket assembly centerline is within 2 inches of the intended joint location longitudinally and has no more than 1/4 inch horizontal skew from end of basket to end of basket.
29. Clip and remove center portion of tie during field assembly.
30. 1/4 inch diameter wire.

EXPANSION JOINTS

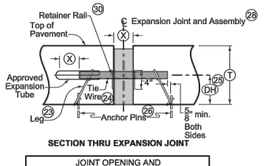


PLAN

Spaces between dowel bars are nominal dimensions with a 1/4" allowable tolerance.



ELEVATION



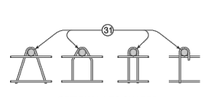
SECTION THRU EXPANSION JOINT

JOINT OPENING AND EXPANSION TUBE EXTENSION		
Joint Type	(X)	Minimum Tube Length
"ED"	1"	6"
"EE"	2"	7"
"EF"	3 1/2"	9"

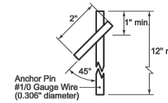
DOWEL HEIGHT AND DIAMETER FOR DOWELED EXPANSION JOINTS		
(T)	(DH)(29)	Diameter
7" to 7 1/2"	3 1/2"	3/4"
8" to 9 1/2"	4 1/2"	1 1/4"
10" to 11 1/2"	5 1/4"	1 1/2"
12" to 13"	6 1/4"	1 1/2"
Tubular Dowel Bars will not be allowed for expansion joints.		

DOWEL ASSEMBLIES (19)(20)(21)

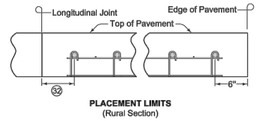
19. Use 18 inch long dowel bars with a tolerance of ± 1/8 inch. Ensure the centerlines of individual dowels are parallel to the other dowels in the assembly within ± 1/8 inch.
20. Use wires with a minimum tensile strength of 50 ksi.
21. Details apply to both transverse contraction and expansion joints.
31. Diameter of bend around dowel is dowel diameter + 1/8 to 3/16 inches.
32. For uniform lane widths: 3 to 6 inches. For taper and variable width pavements: 3 to 12 inches.



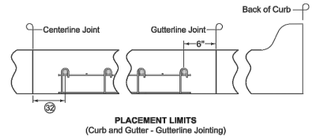
OPTIONAL LEG SHAPES



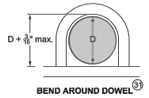
ANCHOR PIN



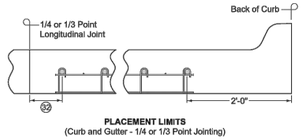
PLACEMENT LIMITS
(Rural Section)



PLACEMENT LIMITS
(Curb and Gutter - Gutterline Jointing)



BEND AROUND DOWEL (31)



PLACEMENT LIMITS
(Curb and Gutter - 1/4 or 1/3 Point Jointing)

DOWEL ASSEMBLIES (19)(20)(21)

SUDAS | IOWADOT | REVISION 11 04-19-22
FIGURE 7010.101 | STANDARD ROAD PLAN | PV-101 | SHEET 7 of 8
REVISIONS: Modified circle note 33.
Paul D. Wiegand — BUREAU DIRECTOR
Kevin Merchant — DESIGN SERVICES ENGINEER

JOINTS

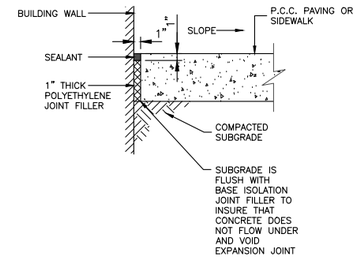
FIGURE 7010.101 SHEET 7 OF 8

SUDAS | IOWADOT | REVISION 11 04-19-22
FIGURE 7010.101 | STANDARD ROAD PLAN | PV-101 | SHEET 8 of 8
REVISIONS: Modified circle note 33.
Paul D. Wiegand — BUREAU DIRECTOR
Kevin Merchant — DESIGN SERVICES ENGINEER

JOINTS

FIGURE 7010.101 SHEET 8 OF 8

1 TYPICAL JOINTS
NOT TO SCALE

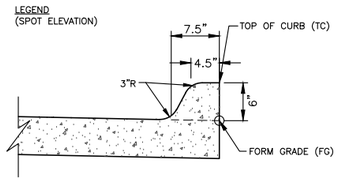


2 ISOLATION JOINT AT BUILDING
NOT TO SCALE

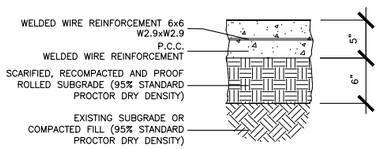
NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DETAIL SHEETS.DWG
DATE PLOTTED: 10/17/2022 4:46 PM
PLOTTED BY: Chris Schultz
FILE DATE: 10/17/22
COMMENT: DWG

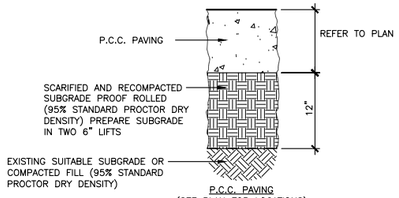
DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE | POLK COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE DETAILS | SHEET NUMBER C8.5



7 6" STANDARD CURB
NOT TO SCALE

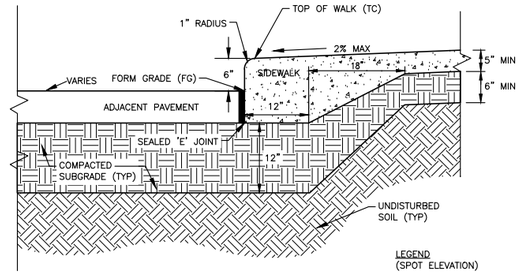


8 SHARED USE PATH DETAIL
NOT TO SCALE

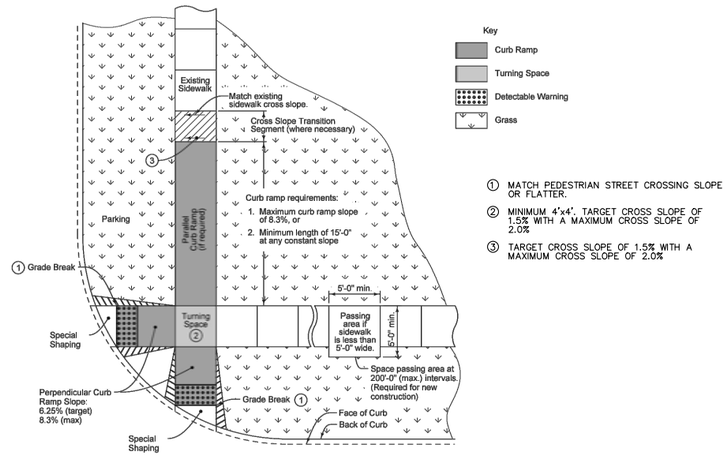


NOTE:
1. SUBGRADE PREPARATION SHALL EXTEND 24" BEYOND EDGE OF PAVING OR BACK OF CURB. EXCEPT WHEN ABUTTING EXISTING PAVEMENT.
2. TRANSVERSE JOINTS SHALL BE "C" JOINTS FOR 6" PCC AT 12' MAX. SPACING.
3. LONGITUDINAL JOINTS SHALL BE INTERCHANGEABLE, L-1 OR KT-1 FOR 6" AND 7" PCC, L-2 OR KT-2 FOR 8" PCC.

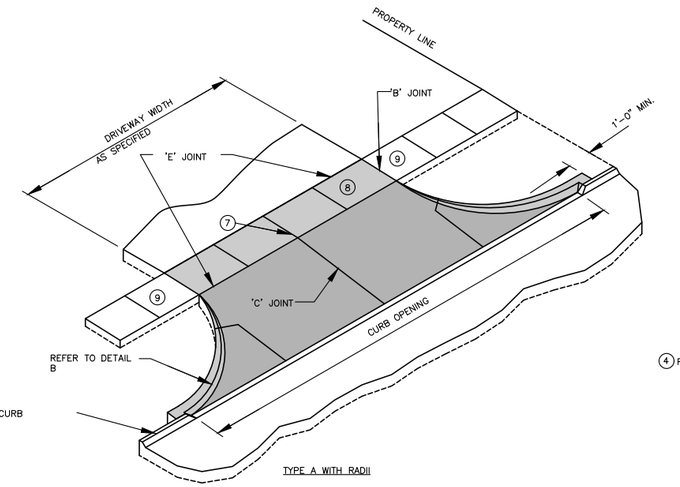
6 TYPICAL SECTION - P.C.C. PAVEMENT
NOT TO SCALE



4 CLASS "A" INTEGRAL CURB AND SIDEWALK
NOT TO SCALE

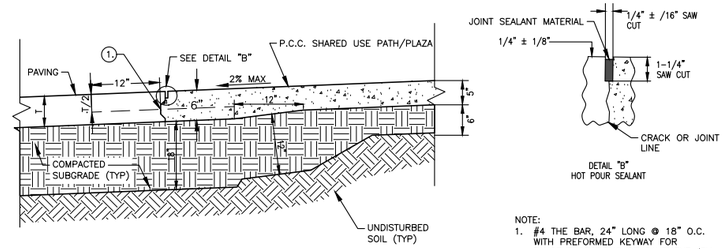


1 GENERAL FEATURES OF AN ACCESSIBLE SIDEWALK
NOT TO SCALE



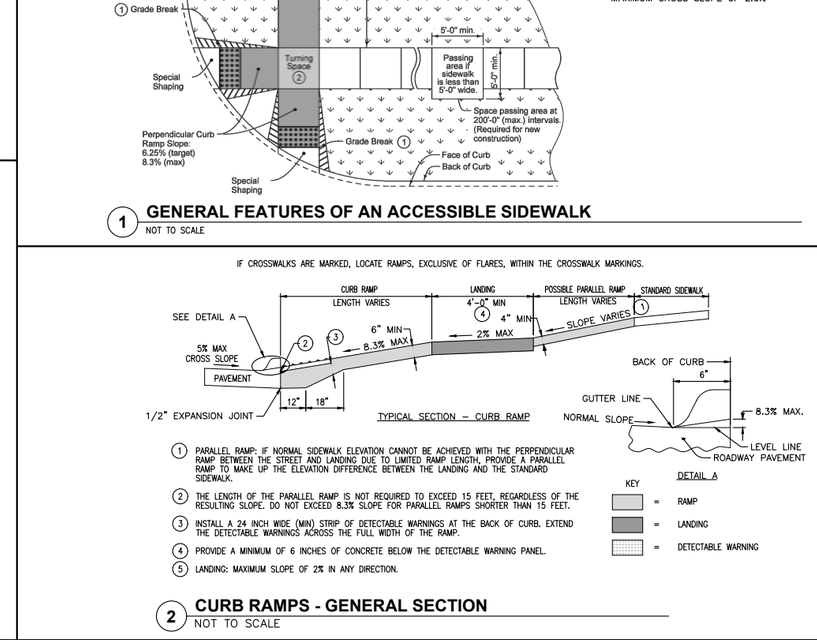
NOTE:
1. THICKENED EDGE SHALL BE INSTALLED ADJACENT TO SYNTHETIC TURF.

9 SHARED USE PATH WITH THICKENED EDGE PCC
NOT TO SCALE



NOTE:
1. #4 THE BAR, 24" LONG @ 18" O.C. WITH PREFORMED KEYWAY FOR TANGENT SECTIONS OF PAVEMENT (BY SITEWORK CONTRACTOR)

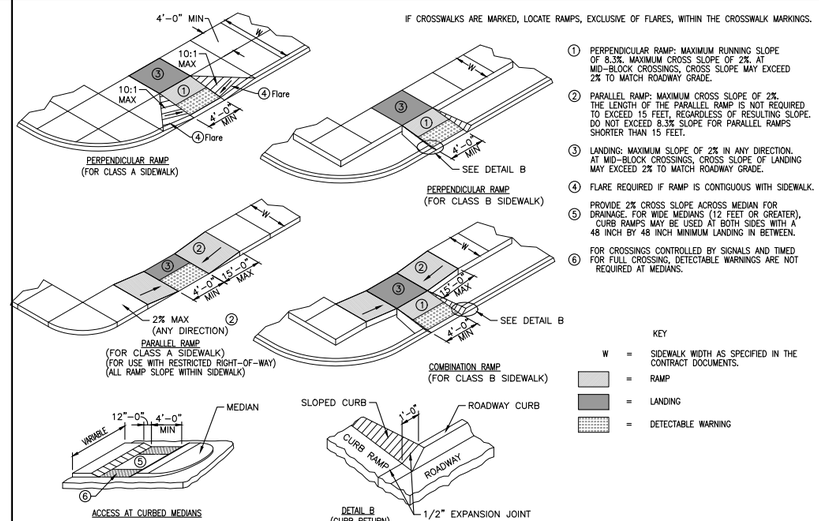
5 SIDEWALK AT PAVEMENT (NO CURB)
NOT TO SCALE



2 CURB RAMPS - GENERAL SECTION
NOT TO SCALE

10 CONCRETE DRIVEWAY TYPE A (MODIFIED)
NOT TO SCALE

1. DRIVEWAY RADIUS (R).
2. PAVEMENT THICKNESS.
   RESIDENTIAL: 6 INCHES MINIMUM.
   COMMERCIAL AND INDUSTRIAL: 7 INCHES MINIMUM.
3. SIDEWALK THICKNESS THROUGH DRIVEWAY TO MATCH THICKNESS OF DRIVEWAY.
4. CENTER REINFORCING BAR VERTICALLY IN THE PAVEMENT.
5. MATCH THICKNESS OF ADJACENT ROADWAY, 8 INCHES MINIMUM.
6. PROVIDE 'E' JOINT AT BACK OF CURB UNLESS 'B' JOINT IS SPECIFIED.
7. FOR ALLEYS, INVERT THE PAVEMENT CROWN 2% TOWARD CENTER OF ALLEY.
8. TARGET CROSS SLOPE OF 1.5% WITH A MAXIMUM CROSS SLOPE OF 2.0%. IF SPECIFIED IN THE CONTRACT DOCUMENTS, CONSTRUCT THE SIDEWALK THROUGH THE DRIVEWAY 5 FEET WIDE TO SERVE AS A PASSING SPACE.
9. IF CROSS SLOPE OF ADJACENT SIDEWALK PANEL EXCEEDS 2.0%, REMOVE AND REPLACE TO TRANSITION FROM EXISTING SIDEWALK TO SIDEWALK THROUGH DRIVEWAY. IF ELEVATION CHANGE REQUIRES A CURB RAMP, COMPLY WITH FIGURE 7030.205; VERIFY NEED FOR DETECTABLE WARNING PANEL WITH ENGINEER.

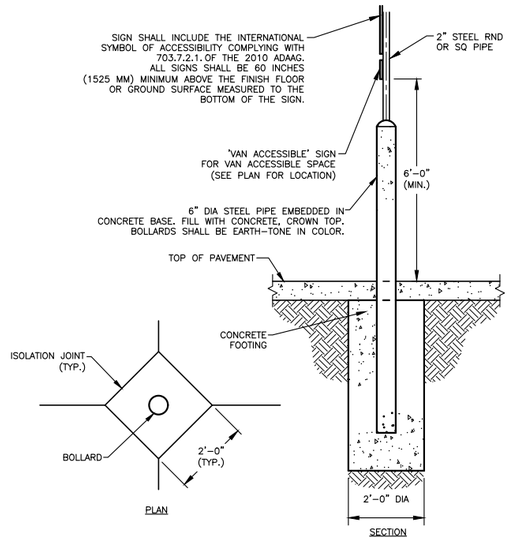


3 CURB RAMPS OUTSIDE OF INTERSECTION RADIUS
NOT TO SCALE

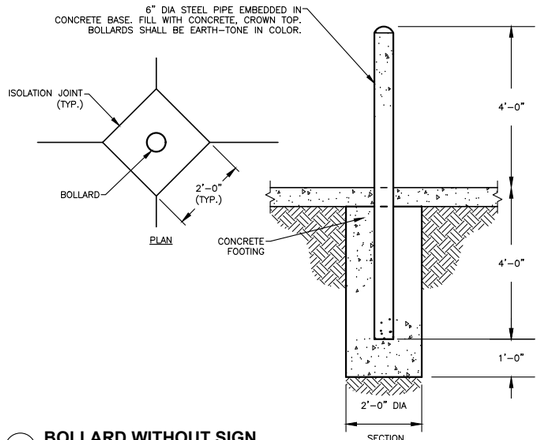
NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DETAIL SHEETS.DWG
FILE DATE: 10/11/22
PLOTTED BY: BRIAN SCHULTE
DATE PLOTTED: 10/11/2022 4:46 PM
COMMENT: ESG

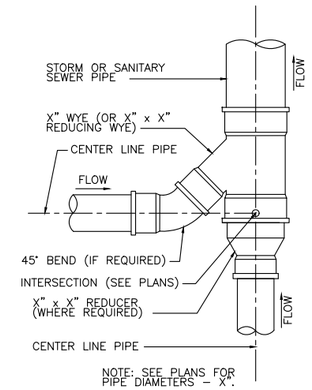
DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DETAILS	SHEET NUMBER C8.6



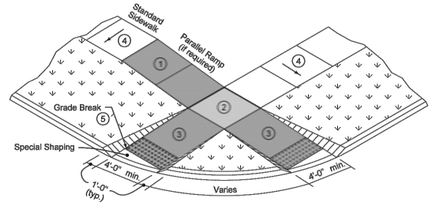
8 BOLLARD WITH SIGN
NOT TO SCALE



5 BOLLARD WITHOUT SIGN
NOT TO SCALE



4 WYE CONNECTION
NOT TO SCALE

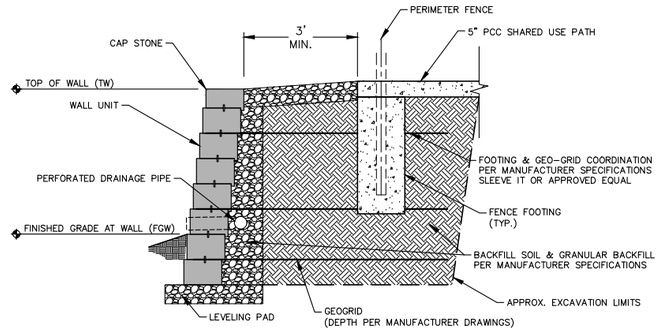


1. Parallel Curb Ramp: If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.

   The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.
2. Turning Space: Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. Minimum 4 feet by 4 feet.
3. Perpendicular Curb Ramp: Target running slope of 6.25% with maximum running slope of 8.3%.
4. Target cross slope of 1.5% with a maximum cross slope of 2.0%.
5. Match pedestrian street crossing cross slope or flatter.

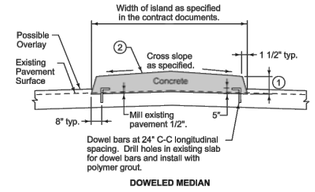
Key
- Curb Ramp
- Turning Space
- Detectable warning
- Grass

1 CURB RAMP FOR CLASS B OR C SIDEWALK
NOT TO SCALE



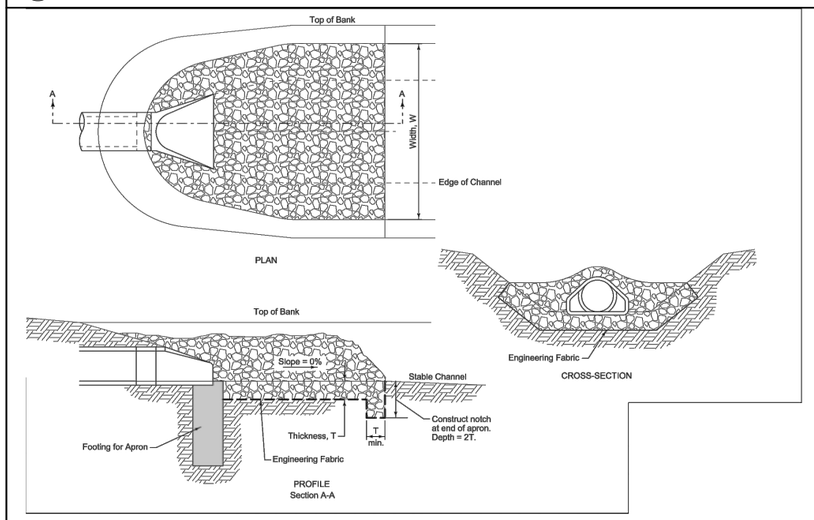
NOTE:
THIS DETAIL IS FOR GENERAL REFERENCE ONLY. CONTRACTOR TO SUBMIT FULL DESIGN DATA TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION AND ORDERING OF MATERIALS. WALL SHALL BE DESIGNED BY A STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF IOWA AND CONSTRUCTED IN ACCORDANCE WITH THE STRUCTURAL ENGINEER'S DESIGN.

6 RETAINING WALL DETAIL
NOT TO SCALE

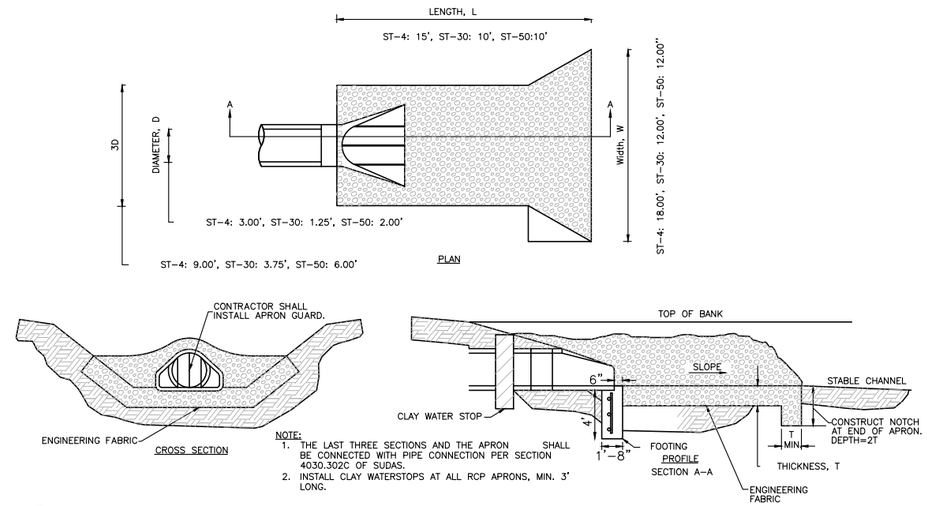


1. Median height as specified in the contract documents.
2. Construct 'C' joints at a maximum spacing of 15'. Match the joint pattern of the existing pavement. Install expansion joints as directed by the Engineer. Construct expansion joints with 1 inch expansion material. Seal all joints.

2 MEDIANS
NOT TO SCALE



7 RIP RAP FOR PIPE OUTLET INTO CHANNEL
NOT TO SCALE



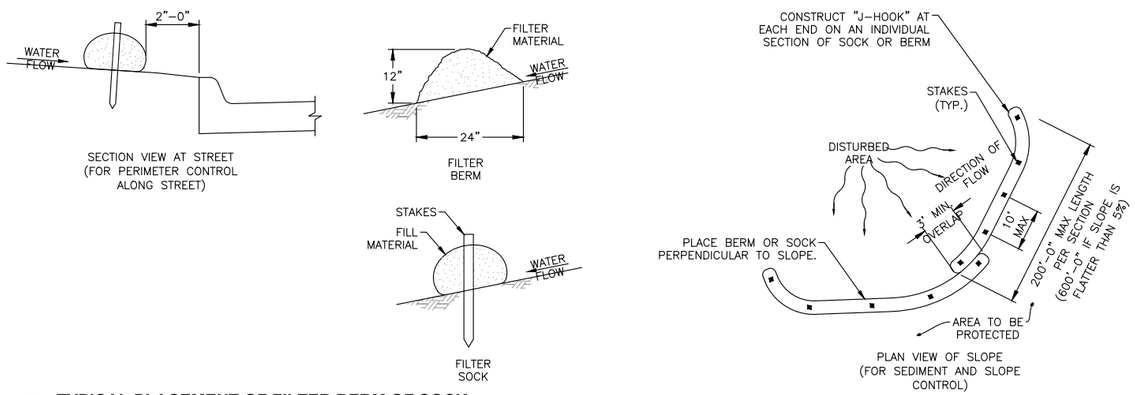
NOTE:
1. THE LAST THREE SECTIONS AND THE APRON SHALL BE CONNECTED WITH PIPE CONNECTION PER SECTION 4030.302C OF SUDAS.
2. INSTALL CLAY WATERSTOPS AT ALL RCP APRONS, MIN. 3' LONG.

3 RIP RAP FOR PIPE OUTLET ONTO FLAT GROUND
NOT TO SCALE

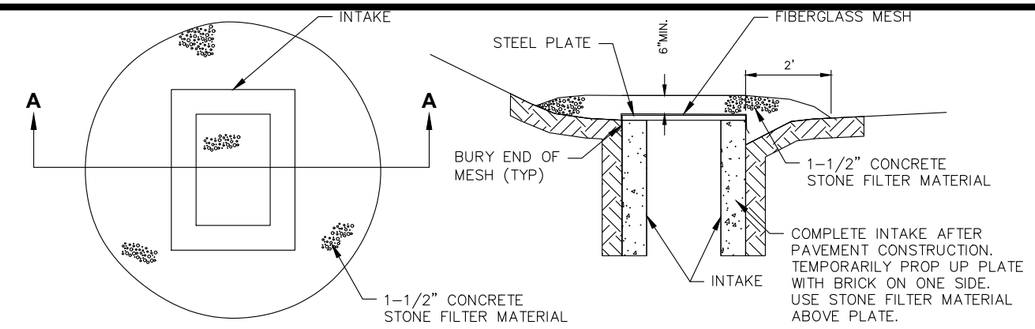
NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DETAIL SHEETS.DWG
FILE DATE: 10/11/2022
PLOTTED BY: BRIAN SCHULTE
DATE PLOTTED: 10/11/2022 4:46 PM
STYLE:
COMMENT:
DESC:

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DETAILS	SHEET NUMBER C8.7



3 **TYPICAL PLACEMENT OF FILTER BERM OF SOCK**
NOT TO SCALE



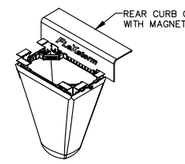
1 **ROCK INLET PROTECTION DETAIL**
NOT TO SCALE

SPECIFICATIONS FOR STANDARD BAGS BY NOMINAL SIZE			
Nominal Bag Size	Solids Storage (Cu.Ft)	Filtered Flow Rate at 50% Max (CFS)	
		FX (Woven)	IL (Non-Woven)
Small	1.6	1.2	0.9
Medium	2.1	1.7	1.3
Large	3.0	2.7	1.9
XL	4.2	3.6	2.6

1. IDENTIFY YOUR FRAME STYLE AND SIZE			
STYLE	FRAME STYLE AND SIZE		Frame P/N
ROUND	Small Round (up to 20.0° dia grates) (A) dim)		62SRD
	Med Round (26.1° – 29.0° dia grates (A) up to 25" dia openings (B)		62MRD
	Large Round (30.1° – 32.0° dia grates (A) up to 29" openings (B)		62LRD
	XL Round (32.1° dia - 39° dia grates (A) up to 37" dia openings (B)		62XLRD
HEAVY DUTY SQUARE	Small Rect / Square (upto 18" (N) x 14" (E) openings or 44" perimeter)		62SSQ
	Med Rect / Square (upto 24" (N) x 24" (E) openings or 96" perimeter)		62MSQ
	Large Rect / Square (up to 35" (N) x 24" (E) openings or 120" perimeter)		62LSQ
	XL Rect / Square (able to retro fit w/ 24" ret curb up to 48" (N) x 36" (E) openings)		62XLSQ
CURB INLETS	Small Rect / Square (ref Rect sizing, shipped with Magnetic Curb Flaps)		62SCB
	Med Rect / Square (ref Rect sizing, shipped with Magnetic Curb Flaps)		62MCB
	Large Rect / Square (ref Rect sizing, shipped with Magnetic Curb Flaps)		62LCB
	XL Rect / Square (ref Rect sizing, shipped with Magnetic Curb Flaps)		62XLCB
NYLOPLAST	12" Diameter Nyloplast castings (Stainless Steel Framing standard)		62S2NV
	18" Diameter Nyloplast castings (Stainless Steel Framing standard)		62S3NV
	24" Diameter Nyloplast castings (Stainless Steel Framing standard)		62S8NV
	24" Diameter Nyloplast castings (Stainless Steel Framing standard)		62S4NV
	36" Diameter Nyloplast castings (Stainless Steel Framing standard)		62S5NV

2. SELECT YOUR BAG PART NUMBER				
FLEXSTORM FILTER BAGS	22" dia(N) (SD Bag P/N)	22" dia(N) Short Bag P/N	Clean Water Flow Rate (GPM/SqFt)	Min A.O.S. (US Sieve)
FX- Standard Woven Bag	FX	FX-S	200	40
IL- DOT Non-Woven Bag	IL	IL-S	145	70

3. CREATE YOUR FLEXSTORM INLET FILTER PART NUMBER	
Frame P/N from Step 1.	Filter Bag P/N from Step 2.



COMBINATION INLET FILTER FOR CURB HOODS

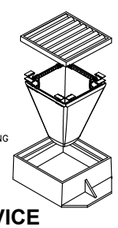
STAINLESS STEEL ROUND INLET FILTERS for NYLOPLAST CASTINGS CATCH–ITS SPECIFIED W/ FX or FX–S BAGS

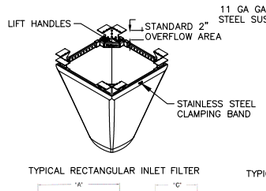
NOTES:

1. ALL FRAMING IS CONSTRUCTED OF CORROSION RESISTANT STEEL (ZINC PLATED OR GALVANIZED) FOR 7 YEAR MINIMUM SERVICE LIFE.
2. UPON ORDERING CONFIRMATION OF THE DOT CALLOUT, PRECAST OR CASTING MAKE AND MODEL, OR DETAILED DIMENSIONAL FORMS MUST BE PROVIDED TO CONFIGURE AND ASSEMBLE YOUR CUSTOMIZED FLEXSTORM INLET FILTER. PART NUMBER ALONE IS NOT SUFFICIENT.
3. FOR WRITTEN SPECIFICATIONS AND MAINTENANCE GUIDELINES VISIT WWW.INLETFILTERS.COM

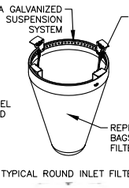
INSTALLATION:

1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE





TYPICAL RECTANGULAR INLET FILTER

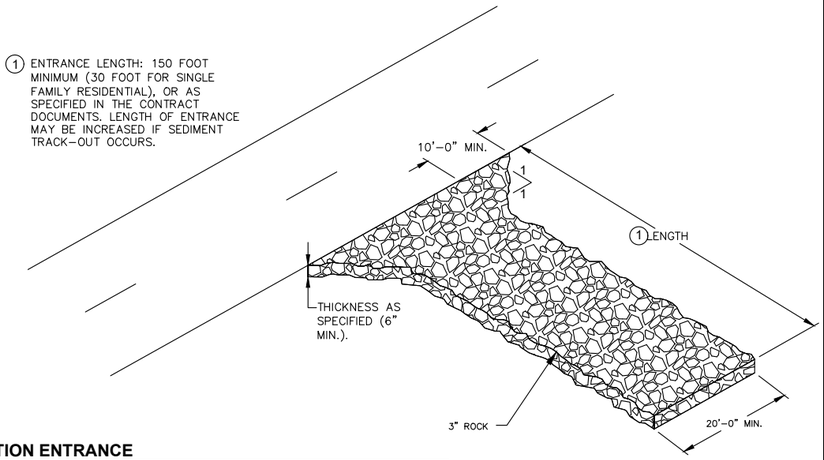


TYPICAL ROUND INLET FILTER

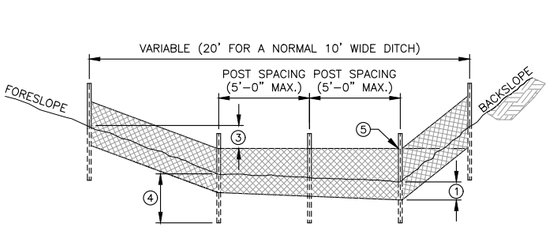
ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC A DIVISION OF ADS, INC.
WWW.INLETFILTERS.COM
(866) 287–8655 PH
(630) 355–3477 FX
INFO@INLETFILTERS.COM

SIZE	DWG NO	REV
SCALE	SHEET 1 OF 1	

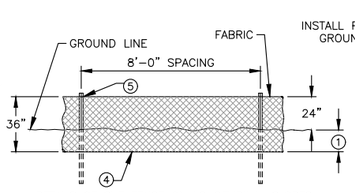
4 **FLEXSTORM INLET PROTECTION DEVICE**
NOT TO SCALE



2 **STABILIZED CONSTRUCTION ENTRANCE**
NOT TO SCALE

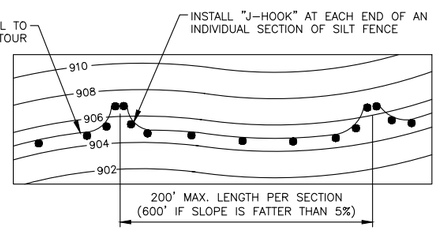


TYPICAL SILT FENCE DITCH CHECK

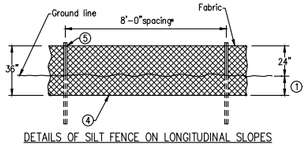


DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES

*REDUCE POST SPACING TO 5'–0" AT WATER CONCENTRATION AREAS, OR AS REQUIRED TO ADEQUATELY SUPPORT FENCE

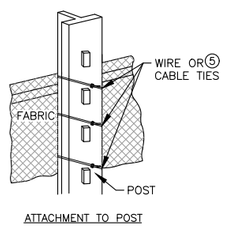


TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES (PLAN VIEW)

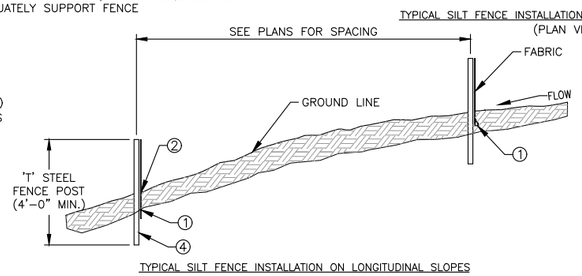


DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES

*Reduce post spacing to 5'–0" at water concentration areas, or as required to adequately support fence



ATTACHMENT TO POST



TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES (PROFILE VIEW)

GENERAL NOTES:

INSTALL SILT FENCE ACCORDING TO THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS AND AT LOCATIONS SHOWN IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE JURISDICTIONAL ENGINEER.

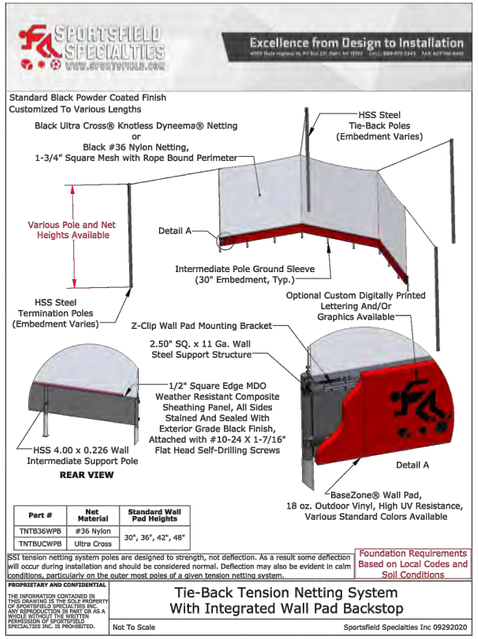
1. INSERT 12" OF FABRIC A MINIMUM OF 6" DEEP (FABRIC MAY BE FOLDED BELOW THE GROUND LINE)
2. COMPACT GROUND BY DRIVING ALONG EACH SIDE OF THE SILT FENCE AS REQUIRED TO SUFFICIENTLY SECURE THE FABRIC IN THE TRENCH TO PREVENT PULLOUT AND FLOW UNDER THE FENCE.
3. IN DITCHES. EXTEND SILT FENCE UP SIDE SLOPE SO THE BOTTOM ELEVATION AT THE END OF THE FENCE IS A MINIMUM OF 2" HIGHER THAN THE TOP OF THE FENCE IN THE LOW POINT OF THE DITCH.
4. STEEL POSTS TO BE EMBEDDED 20" UNLESS OTHERWISE ALLOWED BY THE JURISDICTIONAL ENGINEER.
5. SECURE TOP OF ENGINEERING FABRIC TO STEEL POSTS USING WIRE OR PLASTIC TIES (50 LB. MIN.). SEE DETAILS OF "ATTACHMENT TO POSTS."

5 **SILT FENCE**
NOT TO SCALE

NO.	REVISIONS	DATE	BY

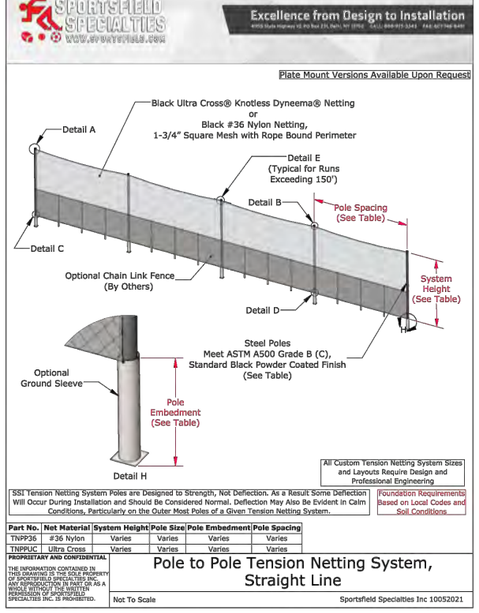
FILE: H:\2022\2202086\DWG\SITE PLAN\2202086–DETAIL SHEETS.DWG
DATE PLOTTED: 10/17/2022 4:46 PM
COMMENT: DWG
DATE: 10/17/22
EDITOR: BILL ROSENAULT

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE	POLK	COUNTY	PROJECT NUMBER 2202.086	SHEET TITLE DETAILS	SHEET NUMBER C8.8



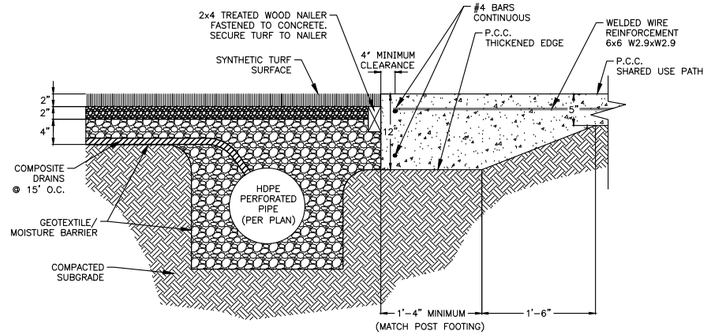
FOR REFERENCE ONLY. (REFER TO MANUFACTURER PLANS FOR CONSTRUCTION DETAILS)

7 WALL PAD BACKSTOP
NOT TO SCALE



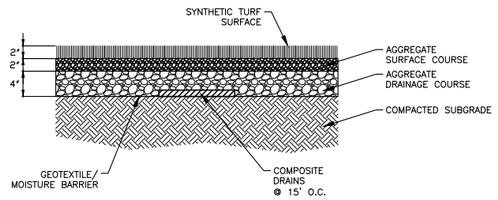
FOR REFERENCE ONLY. (REFER TO MANUFACTURER PLANS FOR CONSTRUCTION DETAILS)

8 BALL CONTROL
NOT TO SCALE



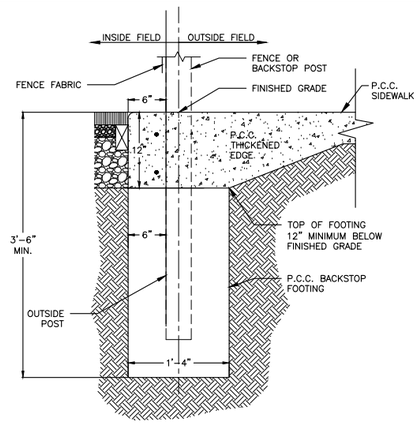
FOR REFERENCE ONLY. (REFER TO MANUFACTURER PLANS FOR CONSTRUCTION DETAILS)

4 TURF AT SHARED USE PATH
NOT TO SCALE



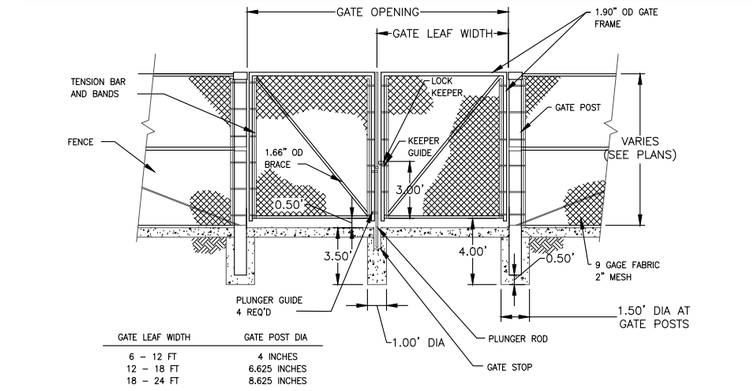
FOR REFERENCE ONLY. (REFER TO MANUFACTURER PLANS FOR CONSTRUCTION DETAILS)

5 SYNTHETIC TURF SECTION
NOT TO SCALE



6 FENCING ADJACENT TO SYNTHETIC TURF
NOT TO SCALE

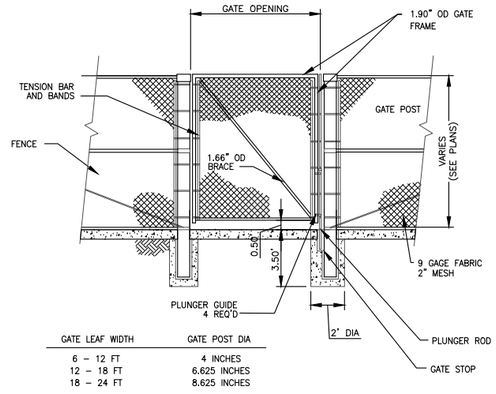
FOR REFERENCE ONLY. (REFER TO MANUFACTURER PLANS FOR CONSTRUCTION DETAILS)



GATE LEAF WIDTH	GATE POST DIA
6 – 12 FT	4 INCHES
12 – 18 FT	6.625 INCHES
18 – 24 FT	8.625 INCHES

1 DOUBLE LEAF GATE
NOT TO SCALE

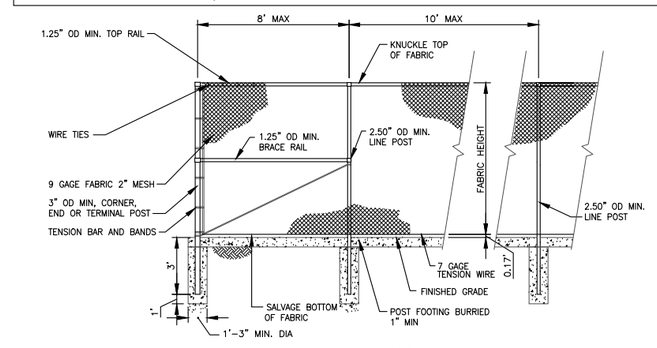
FOR REFERENCE ONLY. (REFER TO MANUFACTURER PLANS FOR CONSTRUCTION DETAILS)



GATE LEAF WIDTH	GATE POST DIA
6 – 12 FT	4 INCHES
12 – 18 FT	6.625 INCHES
18 – 24 FT	8.625 INCHES

2 SINGLE LEAF GATE
NOT TO SCALE

FOR REFERENCE ONLY. (REFER TO MANUFACTURER PLANS FOR CONSTRUCTION DETAILS)



NOTES: 1. 1. ALL POLYVINYL CHLORIDE (PVC) COATED FENCE MATERIALS (FRAMEWORK, FENCE FABRIC, FITTINGS, TENSION WIRES, ETC.) SHALL BE BLACK.
2. AT A MINIMUM, RAIL & POST DIAMETERS SHALL MEET SUDAS SPECIFICATIONS.

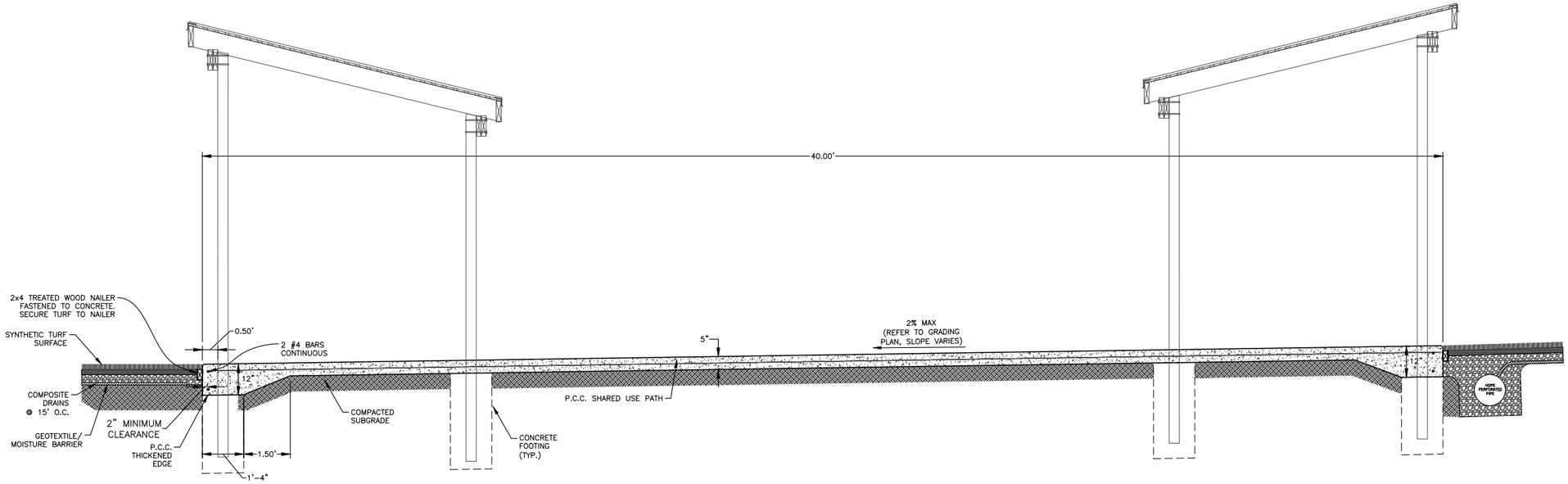
3 CHAINLINK FENCING
NOT TO SCALE

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DETAIL SHEETS.DWG
DATE PLOTTED: 10/11/2022 4:46 PM
PLOT DATE: 10/11/22
PLOTTED BY: BRIAN SCHULTE

NO.	REVISIONS	DATE	BY

COMMENT:
DESIGN:

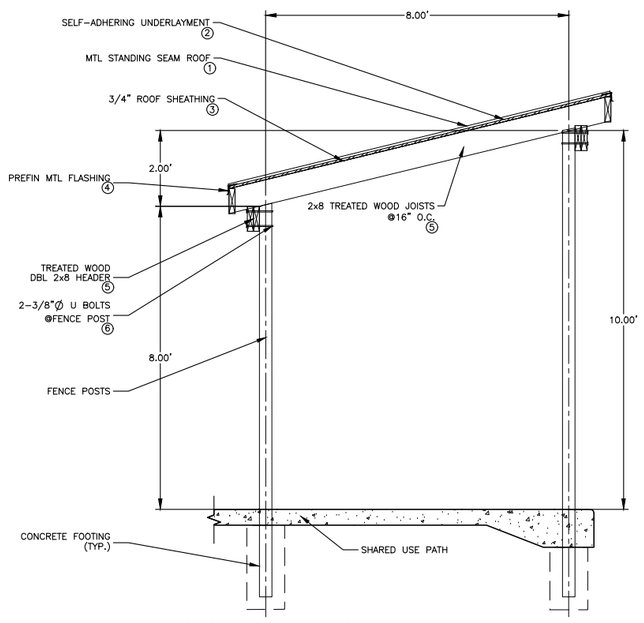
DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE | POLK COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE DETAILS | SHEET NUMBER C8.9



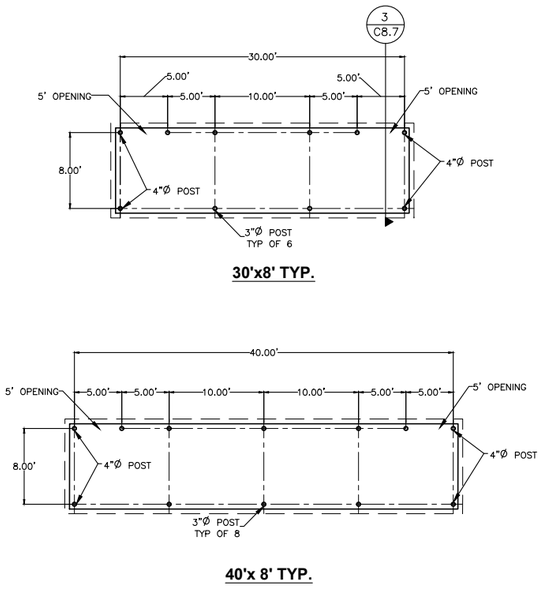
1 TYPICAL DUGOUT & SHARED USE PATH SECTION
NOT TO SCALE

NOTES:

1. COMPLY WITH ASTM; D 2244, D4214, E 1514, E 1592, E 1680, A 653/A653M, A792, A 792M. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR OWNER APPROVAL AND COORDINATE WITH CITY ON COLOR.
   - INCLUDE FABRICATION AND INSTALLATION LAYOUTS OF METAL PANELS; DETAILS OF EDGE CONDITIONS, JOINTS, PANEL PROFILES, CORNERS, ANCHORAGES, ATTACHMENT SYSTEM, TRIM, FLASHINGS, CLOSURES, AND ACCESSORIES; AND SPECIAL DETAILS.
   - VERTICAL-RIB, SNAP-JOINT, STANDING-SEAM METAL ROOF PANELS. MANUFACTURER SHALL APPROVE INSTALLER QUALIFICATIONS. PORTABLE ROLL-FORMING EQUIPMENT SHALL MAINTAIN UL CERTIFICATIONS.
   - PANEL FASTENERS SHALL BE SELF-TAPPING SCREWS DESIGNED TO WITHSTAND BUILDING CODE DESIGN LOADS.
   - PANEL SEALANTS SHALL BE PER MANUFACTURERS RECOMENDATIONS THAT ARE COMPATABLE WITH PANEL MATERIALS, ARE NONSTAINING, AND DO NOT DAMAGE PANEL FINISH.
   - 20 YEAR MINIMAL FINISH & WEATHERTIGHTNESS WARRANTY PERIOD FROM DATE OF SUBSTANTIAL COMPLETION. STRUCTURAL FAILURES AND DETERIORATION OF METALS WARRANTY PERIOD OF TWO YEARS FROM DATE OF SUBSTANTIAL COMPLETION.
2. PROVIDE SELF-ADHERING, COLD-APPLIED, SHEET UNDERLAYMENT, A MINIMUM OF 40 MILS (1 MM) THICK, CONSISTING OF SLIP-RESISTANT, POLYETHYLENE-FILM TOP SURFACE LAMINATED TO A LAYER OF BUTYL OR SBS-MODIFIED ASPHALT ADHESIVE, WITH RELEASE-PAPER BACKING. PROVIDE PRIMER WHEN RECOMMENDED BY UNDERLAYMENT MANUFACTURER.
   - THERMAL STABILITY: STABLE AFTER TESTING AT 240 DEG F (116 DEG C); ASTM D 1970.
   - LOW-TEMPERATURE FLEXIBILITY: PASSES AFTER TESTING AT MINUS 20 DEG F (29 DEG C); ASTM D 1970.
   - PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE ONE OF THE FOLLOWING:
     A. WINTERGUARD; CERTAINTEED CORPORATION.
     B. BITUTHENE ICE AND WATER SHIELD; GRACE: W.R. GRACE & CO.
     C. NORDSHIELD ICE AND WATERGARD; NORD BITUMI US, INC.
     D. F210; NORTHERN ELASTOMERIC, INC.
     E. POLYGUARD DECK GUARD; POLYGUARD PRODUCTS, INC.
     F. POLYKEN 640 UNDERLAYMENT MEMBRANE; POLYKEN TECHNOLOGIES.
     G. QSC-707; QUAKER CONSTRUCTION PRODUCTS, INC.
     h. Moisture Guard; Tamko Asphalt Products, Inc.
   - SLIP SHEET: MANUFACTURER'S RECOMMENDED SLIP SHEET, OF TYPE REQUIRED FOR APPLICATION.
3. EXPOSURE 1 SHEATHING. SPAN RATING: NOT LESS THAN 40/20. THICKNESS NO LESS THAN 1/2 INCH.
4. COMPLY WITH PERFORMANCE REQUIREMENTS, MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AND SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL." PROVIDE CONCEALED FASTENERS WHERE POSSIBLE, AND SET UNITS TRUE TO LINE AND LEVEL AS INDICATED. INSTALL WORK WITH LAPS, JOINTS, AND SEAMS THAT WILL BE PERMANENTLY WATERTIGHT AND WEATHER RESISTANT.
   - INSTALL EXPOSED FLASHING AND TRIM THAT IS WITHOUT BUCKLING AND TOOL MARKS, AND THAT IS TRUE TO LINE AND LEVELS INDICATED, WITH EXPOSED EDGES FOLDED BACK TO FORM HEMS. INSTALL SHEET METAL FLASHING AND TRIM TO FIT SUBSTRATES AND ACHIEVE WATERPROOF AND WEATHER-RESISTANT PERFORMANCE.
   - EXPANSION PROVISIONS: PROVIDE FOR THERMAL EXPANSION OF EXPOSED FLASHING AND TRIM. SPACE MOVEMENT JOINTS AT A MAXIMUM OF 10 FEET (3 M) WITH NO JOINTS ALLOWED WITHIN 24 INCHES (610 MM) OF CORNER OR INTERSECTION. WHERE LAPPED EXPANSION PROVISIONS CANNOT BE USED OR WOULD NOT BE SUFFICIENTLY WEATHER RESISTANT AND WATERPROOF, FORM EXPANSION JOINTS OF INTERMESHING HOOKED FLANGES, NOT LESS THAN 1 INCH (25 MM) DEEP, FILLED WITH MASTIC SEALANT (CONCEALED WITHIN JOINTS).
   - PIPE FLASHING: FORM FLASHING AROUND PIPE PENETRATION AND METAL ROOF PANELS. FASTEN AND SEAL TO METAL ROOF PANELS AS RECOMMENDED BY MANUFACTURER.
5. MATERIAL CERTIFICATES: FOR DIMENSION LUMBER SPECIFIED TO COMPLY WITH MINIMUM ALLOWABLE UNIT STRESSES. INDICATE SPECIES AND GRADE SELECTED FOR EACH USE AND DESIGN VALUES APPROVED BY THE ALSC BOARD OF REVIEW. EVALUATION REPORTS FROM ICC-ES.
   - LUMBER: DOC PS 20 AND APPLICABLE RULES OF GRADING AGENCIES INDICATED. IF NO GRADING AGENCY IS INDICATED, PROVIDE LUMBER THAT COMPLIES WITH THE APPLICABLE RULES OF ANY RULES-WRITING AGENCY CERTIFIED BY THE ALSC BOARD OF REVIEW. PROVIDE LUMBER GRADED BY AN AGENCY CERTIFIED BY THE ALSC BOARD OF REVIEW TO INSPECT AND GRADE LUMBER UNDER THE RULES INDICATED.
     1. FACTORY MARK EACH PIECE OF LUMBER WITH GRADE STAMP OF GRADING AGENCY.
     2. FOR EXPOSED LUMBER INDICATED TO RECEIVE A STAINED OR NATURAL FINISH, MARK GRADE STAMP ON END OR BACK OF EACH PIECE.
     3. WHERE NOMINAL SIZES ARE INDICATED, PROVIDE ACTUAL SIZES REQUIRED BY DOC PS 20 FOR MOISTURE CONTENT SPECIFIED. WHERE ACTUAL SIZES ARE INDICATED, THEY ARE MINIMUM DRESSED SIZES FOR DRY LUMBER.
     4. PROVIDE DRESSED LUMBER, S4S, UNLESS OTHERWISE INDICATED.
   - PRESERVATIVE TREATMENT BY PRESSURE PROCESS: AWPA U1; USE CATEGORY UC2 FOR INTERIOR CONSTRUCTION NOT IN CONTACT WITH THE GROUND, USE CATEGORY UC3B FOR EXTERIOR CONSTRUCTION NOT IN CONTACT WITH THE GROUND, AND USE CATEGORY UC4A FOR ITEMS IN CONTACT WITH THE GROUND.
     1. PRESERVATIVE CHEMICALS: ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AND CONTAINING NO ARSENIC OR CHROMIUM. DO NOT USE INORGANIC BORON (SBX) FOR SILL PLATES.
     2. FOR EXPOSED ITEMS INDICATED TO RECEIVE A STAINED OR NATURAL FINISH, USE CHEMICAL FORMULATIONS THAT DO NOT REQUIRE INCISING, CONTAIN COLORANTS, BLEED THROUGH, OR OTHERWISE ADVERSELY AFFECT FINISHES.
   - MAXIMUM MOISTURE CONTENT OF LUMBER: 19 PERCENT FOR 2-INCH NOMINAL (38-MM ACTUAL) THICKNESS OR LESS, NO LIMIT FOR MORE THAN 2-INCH NOMINAL (38-MM ACTUAL) THICKNESS UNLESS OTHERWISE INDICATED.
   - DELIVERY, STORAGE, AND HANDLING CONTRACTOR SHALL STACK LUMBER FLAT WITH SPACERS BENEATH AND BETWEEN EACH BUNDLE TO PROVIDE AIR CIRCULATION.PROTECT LUMBER FROM WEATHER BY COVERING WITH WATERPROOF SHEETING, SECURELY ANCHORED. PROVIDE FOR AIR CIRCULATION AROUND STACKS AND UNDER COVERING.
   - JOISTS, RAFTERS, AND OTHER FRAMING NOT LISTED ABOVE: CONSTRUCTION OR NO. 2 SPECIES: SOUTHERN PINE; SPIB.
6. ANCHOR BOLTS: ASTM F 1554, GRADE 36, OF DIMENSIONS INDICATED; WITH NUTS, ASTM A 563; AND, WHERE INDICATED, FLAT WASHERS.
   - HOT-DIP GALVANIZE OR PROVIDE MECHANICALLY DEPOSITED, ZINC COATING WHERE ITEM BEING FASTENED IS INDICATED TO BE GALVANIZED.



3 SECTION AT CONSTRUCTED DUGOUTS
NOT TO SCALE



2 CONSTRUCTED DUGOUT FLOOR PLANS
NOT TO SCALE

NO.	REVISIONS	DATE	BY

FILE: H:\2022\2202086\DWG\SITE PLAN\2202086-DETAL SHEETS.DWG
PLT DATE: 10/17/22
PLOTTED BY: ERIC SCHULTE
DATE PLOTTED: 10/17/2022 4:46 PM
COMMENT: DUGOUTS

DESIGN TEAM – CITY OF GRIMES / CIVIL DESIGN ADVANTAGE | POLK COUNTY | PROJECT NUMBER 2202.086 | SHEET TITLE DETAILS | SHEET NUMBER C8.10

BASE BID ELECTRICAL

1. QTY (2) : NEW ELECTRICAL SERVICE ENTRANCE AND POWER DISTRIBUTION EQUIPMENT. PARKING LOT LIGHTING, POWER/COMMUNICATIONS ROUGH INS FOR PARKING LOT GATES.

BID ALT. 1:

1. CONVENIENCE OUTLETS IN DUGOUTS.
2. POWER AND COMMUNICATION ROUGH-INS AND HANDHOLES LOCATED AT BACKSTOPS.
3. HAND HOLES AT ATHLETIC LIGHT POLE LOCATIONS SHOWN.
4. CONDUIT ROUGH-INS FOR ATHLETIC LIGHTING.
5. STRUCTURAL BASES/FOUNDATIONS FOR ATHLETIC LIGHT POLES.

BID ALT. 3:

1. FULL PARKING LOT GATE INSTALLATION, INCLUDING ALL PARKING LOT GATE EQUIPMENT FOR A FULLY FUNCTIONING SYSTEM. REFER TO CIVIL SPECIFICATIONS FOR PARKING GATE INFORMATION.

BID ALT. 4:

INSTALLATION OF ATHLETIC LIGHTING

1. CONDUCTORS FOR POWER TO LIGHTS
2. 408V/3PH PANELBOARD FOR LIGHTING
3. GFI RECEPTACLES AND POWER FOR RECEPTACLES AT ATHLETIC POLE LOCATIONS SHOWN
4. ALL POLES, LIGHT FIXTURES, AND CONTROLS FOR ATHLETIC LIGHTING.

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
E / E	ECONN	26 05 33	ELECTRICAL CONNECTION
J / J	JB	26 05 33	JUNCTION BOX
▽	RI-TECH	26 05 33	WEATHERPROOF TECHNOLOGY OUTLET ROUGH-IN
▭	PANEL '###'	26 24 16	PANELBOARD - SURFACE MOUNT
⊠	TR-#	26 22 00	TRANSFORMER, REFER TO TRANSFORMER SCHEDULE
W	REC-QUAD-WP	26 27 26	QUAD GFI WEATHERPROOF RECEPTACLE, 125V
TC	TC-#	26 09 33	TIME SWITCH
PC	PC-#	26 09 33	EXTERIOR PHOTOCELL
▭	LC-#	26 09 33	LIGHTING CONTACTOR

ELECTRICAL EQUIPMENT TAGS

TAG:	DESCRIPTION:	RELATED SPECIFICATION
LC-#	LIGHTING CONTACTOR	26 09 33
DP-#	DISTRIBUTION PANEL	26 24 16
HH-#	HANDHOLE	26 05 33
MC-#	EXTERIOR MOUNTED METERING CABINET	26 20 00
SPD-#	SURGE PROTECTION DEVICE	26 43 00

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
	REFER TO LUMINAIRE SCHEDULE		WALL BRACKET LUMINAIRE
			POLE MOUNTED LUMINAIRE

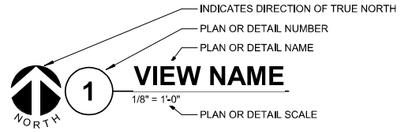
CONTACT PERSONS:

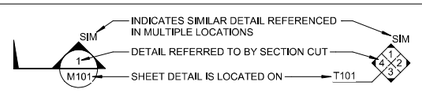
DESCRIPTION:	PERSON:
PROJECT MANAGER	Kristen L. Spina
ELECTRICAL	Kristen L. Spina

VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
———— NEW
– – – – – – – – EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
— — — NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
———— EXISTING
– – – – – – – – EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
— — — EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE, IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

ELECTRICAL SHEET INDEX

E000	ELECTRICAL COVERSHEET
E001	ELECTRICAL SITE PLAN OVERALL - AREAS
E101	ELECTRICAL SITE PLAN - AREA A
E102	ELECTRICAL SITE PLAN - AREA B
E103	ELECTRICAL SITE PLAN - AREA C
E104	ELECTRICAL SITE PLAN - AREA D
E105	ELECTRICAL SITE PLAN - AREA E
E106	ELECTRICAL SITE PLAN - AREA F
E200	ELECTRICAL ENLARGED PLANS
E300	ELECTRICAL ONE-LINE
E400	ELECTRICAL DETAILS
E401	ELECTRICAL DETAILS
E500	ELECTRICAL SCHEDULES
E501	ELECTRICAL SCHEDULES
E503	ELECTRICAL SCHEDULES
GRAND TOTAL: 15	

ELECTRICAL GENERAL NOTES:

1. **{L###}** INDICATES THE LIGHTING SEQUENCE OF OPERATION FOR THE SPACE. REFER TO THE LIGHTING SEQUENCE OF OPERATION MATRIX ON SHEET **E-500.**
2. REFER TO SHEET **E-400** FOR LIGHTING CONTROL ONE-LINE DIAGRAM.
3. REFER TO SHEET **E-500** FOR LUMINAIRE SCHEDULE.

LUMINAIRE KEY:

LUMINAIRE — F1 = FIXTURE TAG
1 = CIRCUIT NUMBER

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: F1 / 1

DEVICE KEY:

DEVICE — A = MOUNTING (IF APPLICABLE)
1 = CIRCUIT NUMBER

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: A / 1

ELECTRICAL INSTALLATION NOTES:

1. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
2. ALL WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY STANDARDS. CONTRACTOR SHALL FURNISH TO THE ARCHITECT/ENGINEER CERTIFICATES QUALIFYING EACH WELDER, PRIOR TO START OF WORK. THE ARCHITECT/ENGINEER RESERVES THE RIGHT TO REQUIRE QUALIFYING DEMONSTRATION, AT THE CONTRACTOR'S EXPENSE, OF ANY WELDERS ASSIGNED TO THE JOB.
3. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO THE WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION AND FINISH.
4. ELECTRICAL IDENTIFICATION. REFER TO SPECIFICATION SECTION 26 05 53 FOR COLOR/LABEL REQUIREMENTS FOR CABLE/WIRE, AND EQUIPMENT.

ELECTRICAL ABBREVIATION KEY

ABBR:	DESCRIPTION:
C	CONDUIT
GFI	GROUND FAULT INTERRUPTER
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
G.C.	GENERAL CONTRACTOR

APPLICABLE CODES

CONTRACTOR SHALL COMPLY WITH APPLICABLE CODES AND LOCAL AMENDMENTS.

ELECTRICAL CODE:	NFPA 70 (NEC) 2020 EDITION
ENERGY CONSERVATION CODE:	IECC 2018
LOCAL BUILDING CODE:	CURRENT EDITION

CONDUIT INSTALLATION SCHEDULE

THE FOLLOWING SCHEDULE SHALL BE ADHERED TO UNLESS THEY CONSTITUTE A VIOLATION OF APPLICABLE CODES OR ARE NOTED OTHERWISE ON THE DRAWINGS. THE INSTALLATION OF RMC CONDUIT WILL BE PERMITTED IN PLACE OF ALL CONDUIT SPECIFIED IN THIS SCHEDULE. REFER TO CONDUIT AND BOXES SPECIFICATION 26 05 33 FOR ADDITIONAL INFORMATION.

INSTALLATION TYPE	RMC	IMC	EMT	PVC	PVC CONCRETE ENCASED	HDPE
FEEDERS: SWITCHBOARDS, DISTRIBUTION PANELS, PANELBOARDS, MOTOR CONTROL CENTERS, ETC.		X	X			
BRANCH CIRCUITS: LIGHTING, RECEPTACLES, CONTROLS, ETC.		X	X			
UNDERGROUND SITE CONDUITS:						
WITHIN 5' FROM THE PERIMETER OF A BUILDING FOUNDATION	X				X	
5' OR GREATER FROM THE PERIMETER OF A BUILDING FOUNDATION	X			X		
UNDER ROADS, DRIVES, AND VEHICLE TRAVELED WAYS. WHEN HDPE DIRECTIONAL BORING IS ALLOWED: PROVIDE PRESSURIZED GROUT				X		X
DUCTBANKS (REFER TO DUCTBANK DETAILS WHEN APPLICABLE)						
REINFORCING SHALL CONSIST OF ONE-HALF INCH DEFORMED BARS SPACED 12 INCHES ON CENTER, PARALLELING THE DUCTS ON BOTTOM, WITH ONE-HALF INCH DEFORMED TIE BARS SPACED TWELVE INCHES ON CENTERS.					X	
BARS SHALL OVERLAP 40 DIAMETERS AND SHALL EXTEND 5' BEYOND ROADS, DRIVES, TRAVELED WAYS, ETC.					X	
PROVIDE MINIMUM 3" CONCRETE COVER ON ALL SIDES OF REINFORCING.					X	
ENTIRE DUCTBANK SHALL BE INSTALLED ON PRECAST CONCRETE PAVERS ON 3' CENTERS.					X	
DEFINITIONS:						
CONCRETE ENCASEMENT: CONDUIT WITH A MINIMUM OF 3" THICKNESS BETWEEN THE SURFACE OF THE CONCRETE AND THE NEAREST CONDUIT. CONCRETE TO BE DOWELED INTO THE FOUNDATION.						

LICENSED PROFESSIONAL ENGINEER
KRISTEN L. SPINA
21081
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

Digitally signed by Kristen Spina, P.E.
Date: 2022.10.11 17:21:39-05'00'

KRISTEN L. SPINA — DATE

MY LICENSE EXPIRATION DATE IS: 12/31/2023

PAGES OR SHEETS COVERED BY THIS SEAL:

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter. www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP, AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF, SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

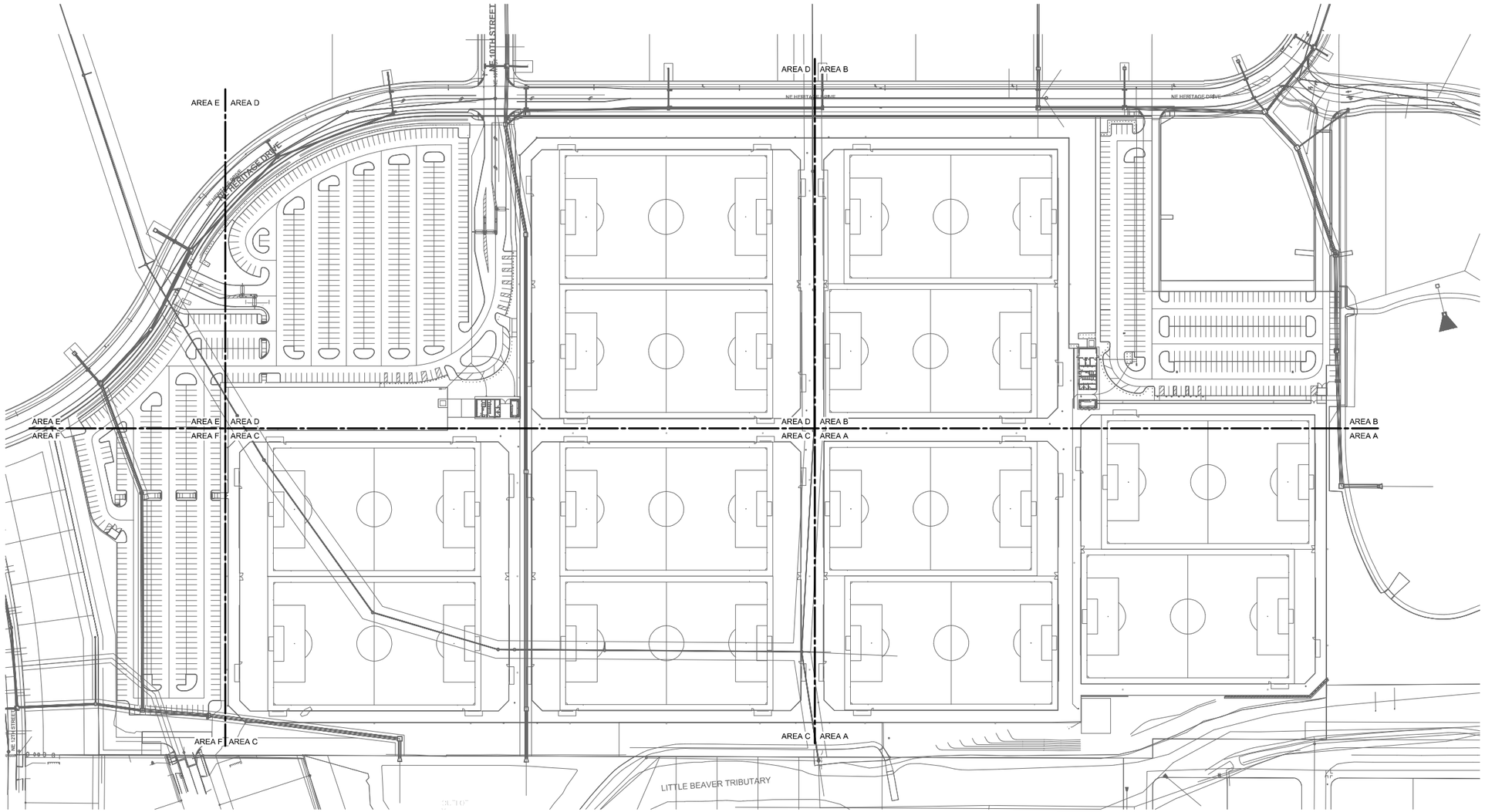
SHEET INFORMATION

Issue	100% CONSTRUCTION DOCUMENTS
Date	10/10/2022
Project #	22006558.00
Drawn	KYHIL
Checked	KRISPI
Approved	KRISPI

SHEET TITLE
ELECTRICAL COVERSHEET

SCALE
Scale: As indicated

SHEET NUMBER
E000



1 **ELECTRICAL SITE PLAN OVERALL - AREAS**

1" = 200'-0"

NORTH

22006558.00 10/11/2022 4:19:06 PM Grimes- IA-Grimes Plex

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	100% CONSTRUCTION DOCUMENTS
Date	10/10/2022
Project #	22006558.00
Drawn	KYHIL
Checked	KRISPI
Approved	KRISPI

SHEET TITLE

ELECTRICAL SITE PLAN OVERALL - AREAS

SCALE

Scale: 1" = 100'-0"

SHEET NUMBER

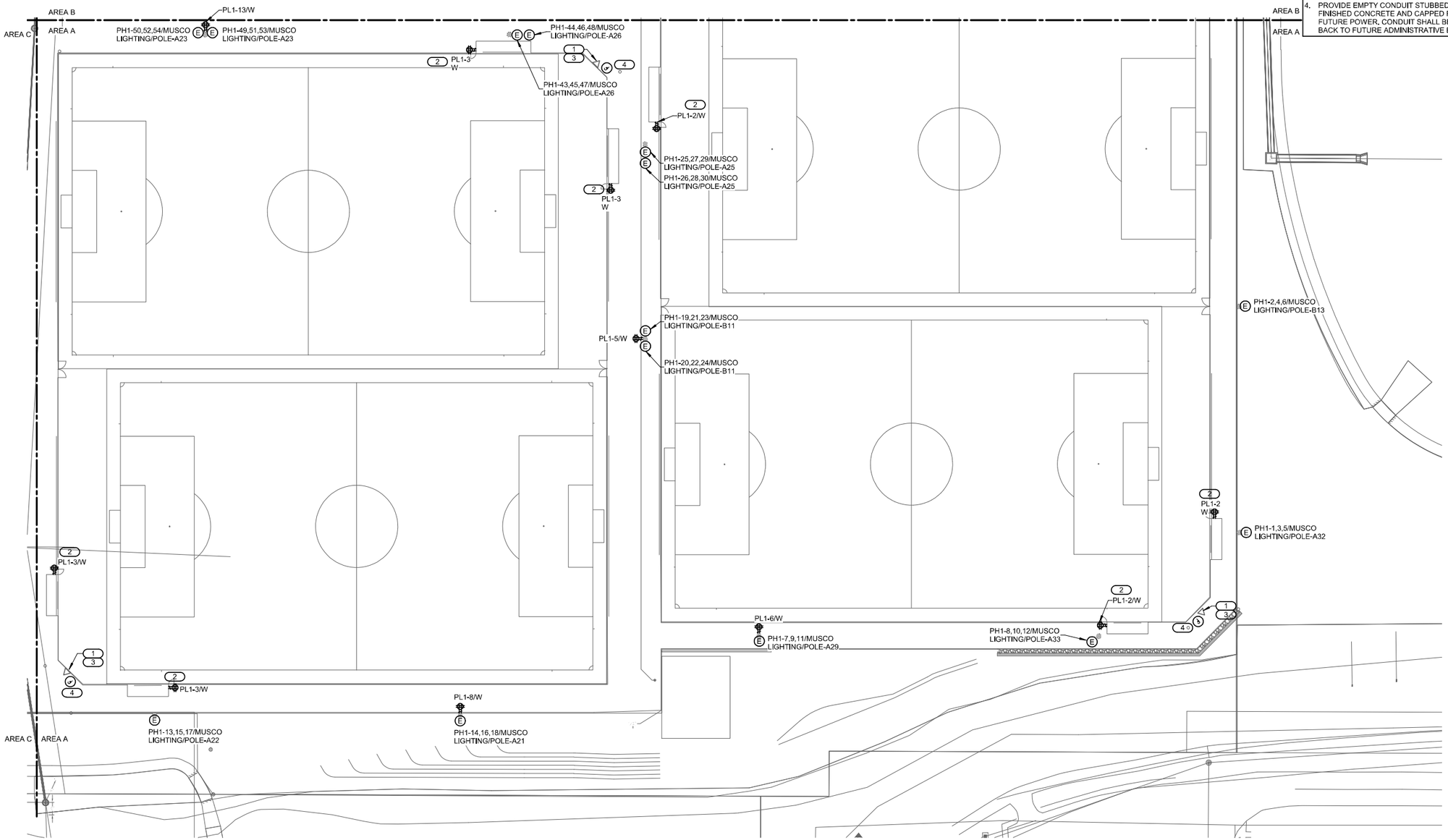
E001

SHEET NOTES:

1. ALL UNDERGROUND CIRCUITS SHALL BE ROUTED 30" BELOW FINISHED GRADE. COORDINATE EXACT ROUTING WITH CIVIL CONTRACTOR PRIOR TO INSTALLATION.

KEYNOTES: (#)

1. PROVIDE (2) 2" UNDERGROUND CONDUIT FROM DATA ROUGH-IN TO SOUTH SIDE MAINTENANCE BUILDING. EXACT CONDUIT STUB-UP LOCATION AT ADMINISTRATIVE BUILDING TO BE DETERMINED DURING CONSTRUCTION WITH APPROVAL FROM OWNERS REP.
2. DEVICE SHALL BE MOUNTED BELOW BENCH INSIDE OF DUGOUT. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
3. DEVICE SHALL BE CENTERED BEHIND BASEBALL FIELD BACKSTOP. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
4. PROVIDE EMPTY CONDUIT STUBBED UP ABOVE FINISHED CONCRETE AND CAPPED FOR FUTURE POWER. CONDUIT SHALL BE ROUTED BACK TO FUTURE ADMINISTRATIVE BUILDING.



1 ELECTRICAL SITE PLAN - AREA A

1" = 80'-0"

NORTH

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	**100% CONSTRUCTION DOCUMENTS**
Date	**10/10/2022**
Project #	**22006558.00**
Drawn	**KYHIL**
Checked	**KRISPI**
Approved	**KRISPI**

SHEET TITLE

ELECTRICAL SITE PLAN - AREA A

SCALE

Scale: **1" = 40'-0"**

SHEET NUMBER

E101

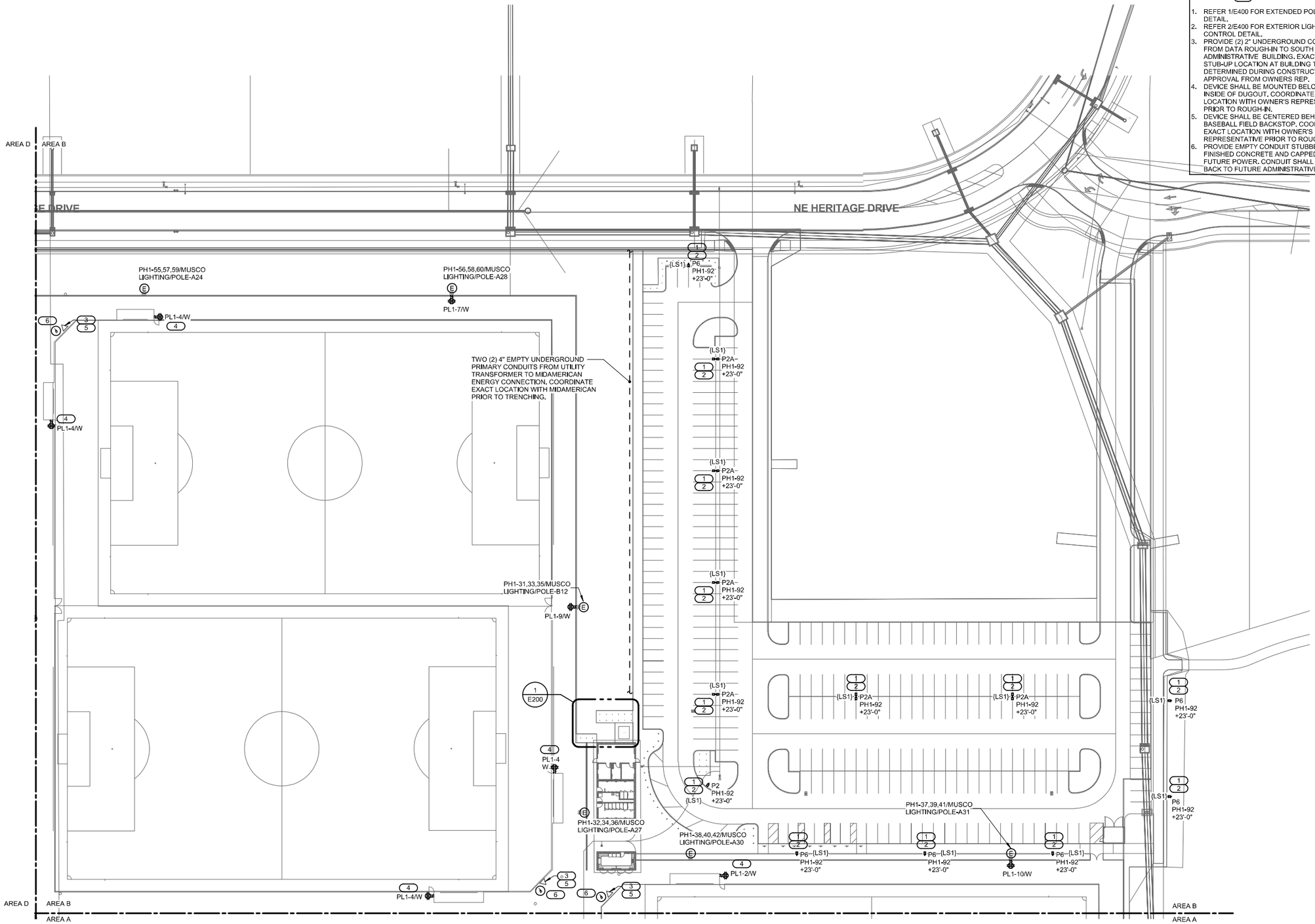
22006558.00 10/11/2022 4:19:06 PM Grimes- IA-Grimes Plex

SHEET NOTES:

1. ALL UNDERGROUND CIRCUITS SHALL BE ROUTED 30" BELOW FINISHED GRADE. COORDINATE EXACT ROUTING WITH CIVIL CONTRACTOR PRIOR TO INSTALLATION.

KEYNOTES: (#)

1. REFER 1/E400 FOR EXTENDED POLE BASE DETAIL.
2. REFER 2/E400 FOR EXTERIOR LIGHTING CONTROL DETAIL.
3. PROVIDE (2) 2" UNDERGROUND CONDUIT FROM DATA ROUGH-IN TO SOUTH SIDE ADMINISTRATIVE BUILDING. EXACT CONDUIT STUB-UP LOCATION AT BUILDING TO BE DETERMINED DURING CONSTRUCTION WITH APPROVAL FROM OWNERS REP.
4. DEVICE SHALL BE MOUNTED BELOW BENCH INSIDE OF DUGOUT. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
5. DEVICE SHALL BE CENTERED BEHIND BASEBALL FIELD BACKSTOP. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
6. PROVIDE EMPTY CONDUIT STUBBED UP ABOVE FINISHED CONCRETE AND CAPPED FOR FUTURE POWER. CONDUIT SHALL BE ROUTED BACK TO FUTURE ADMINISTRATIVE BUILDING.



1 ELECTRICAL SITE PLAN - AREA B

1" = 80'-0"

NORTH

22006558.00 10/11/2022 4:19:07 PM Grimes- IA-Grimes Plex

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.
<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	100% CONSTRUCTION DOCUMENTS
Date	10/10/2022
Project #	22006558.00
Drawn	KYHIL
Checked	KRISPI
Approved	KRISPI

SHEET TITLE

ELECTRICAL SITE PLAN - AREA B

SCALE

Scale: 1" = 40'-0"

SHEET NUMBER

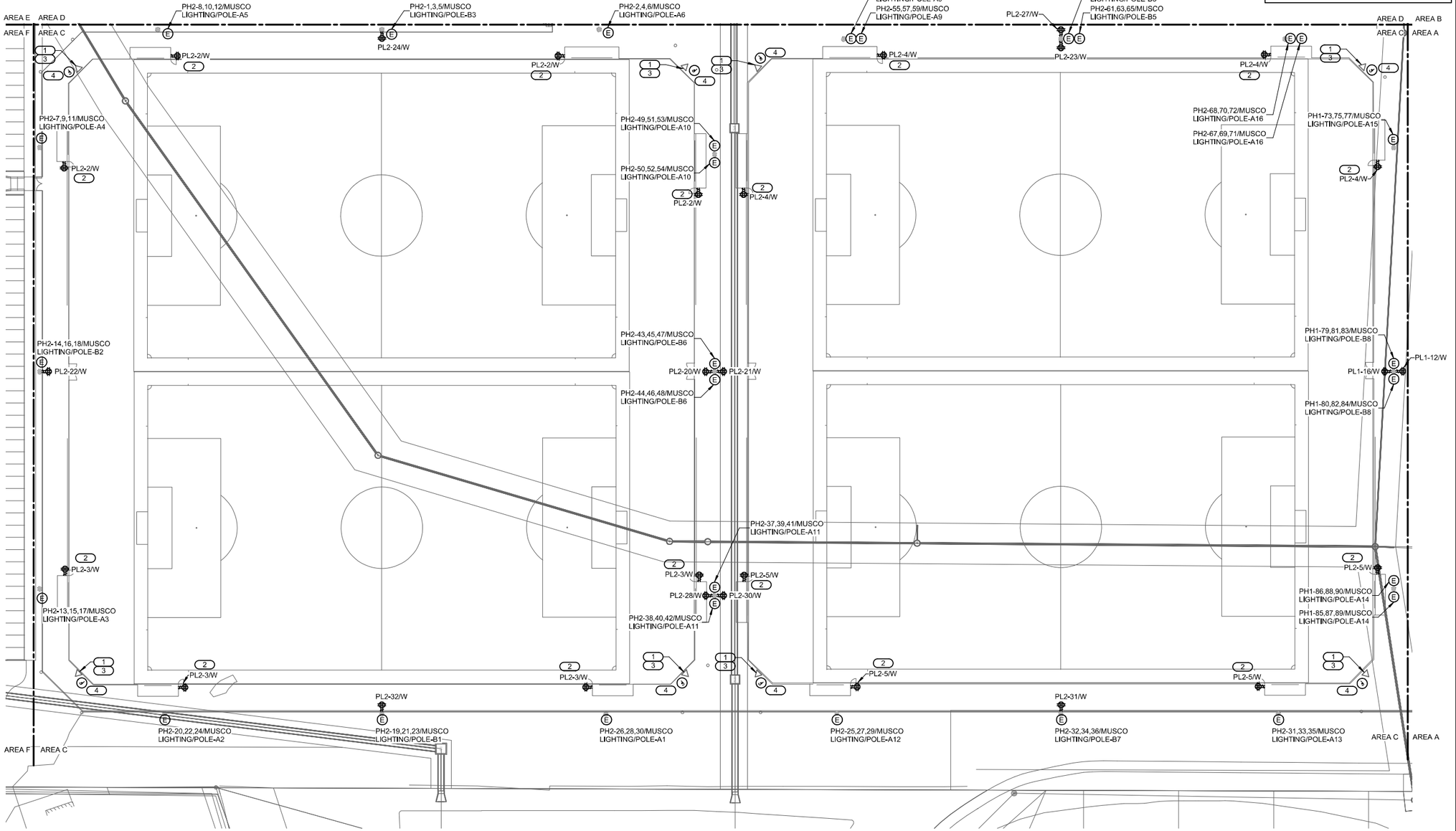
E102

SHEET NOTES:

1. ALL UNDERGROUND CIRCUITS SHALL BE ROUTED 30" BELOW FINISHED GRADE. COORDINATE EXACT ROUTING WITH CIVIL CONTRACTOR PRIOR TO INSTALLATION.

KEYNOTES: (#)

1. PROVIDE (2) 2" UNDERGROUND CONDUIT FROM DATA ROUGH-IN TO SOUTH SIDE MAINTENANCE BUILDING. EXACT CONDUIT STUB-UP LOCATION AT ADMINISTRATIVE BUILDING TO BE DETERMINED DURING CONSTRUCTION WITH APPROVAL FROM OWNERS REP.
2. DEVICE SHALL BE MOUNTED BELOW BENCH INSIDE OF DUGOUT. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
3. DEVICE SHALL BE CENTERED BEHIND BASEBALL FIELD BACKSTOP. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
4. PROVIDE EMPTY CONDUIT STUBBED UP ABOVE FINISHED CONCRETE AND CAPPED FOR FUTURE POWER. CONDUIT SHALL BE ROUTED BACK TO FUTURE ADMINISTRATIVE BUILDING.



1 ELECTRICAL SITE PLAN - AREA C

1" = 80'-0"

NORTH

22006558.00 10/11/2022 4:19:07 PM Grimes- IA-Grimes Plex

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	100% CONSTRUCTION DOCUMENTS
Date	10/10/2022
Project #	22006558.00
Drawn	KYHIL
Checked	KRISPI
Approved	KRISPI

SHEET TITLE

ELECTRICAL SITE PLAN - AREA C

SCALE

Scale: 1" = 40'-0"

SHEET NUMBER

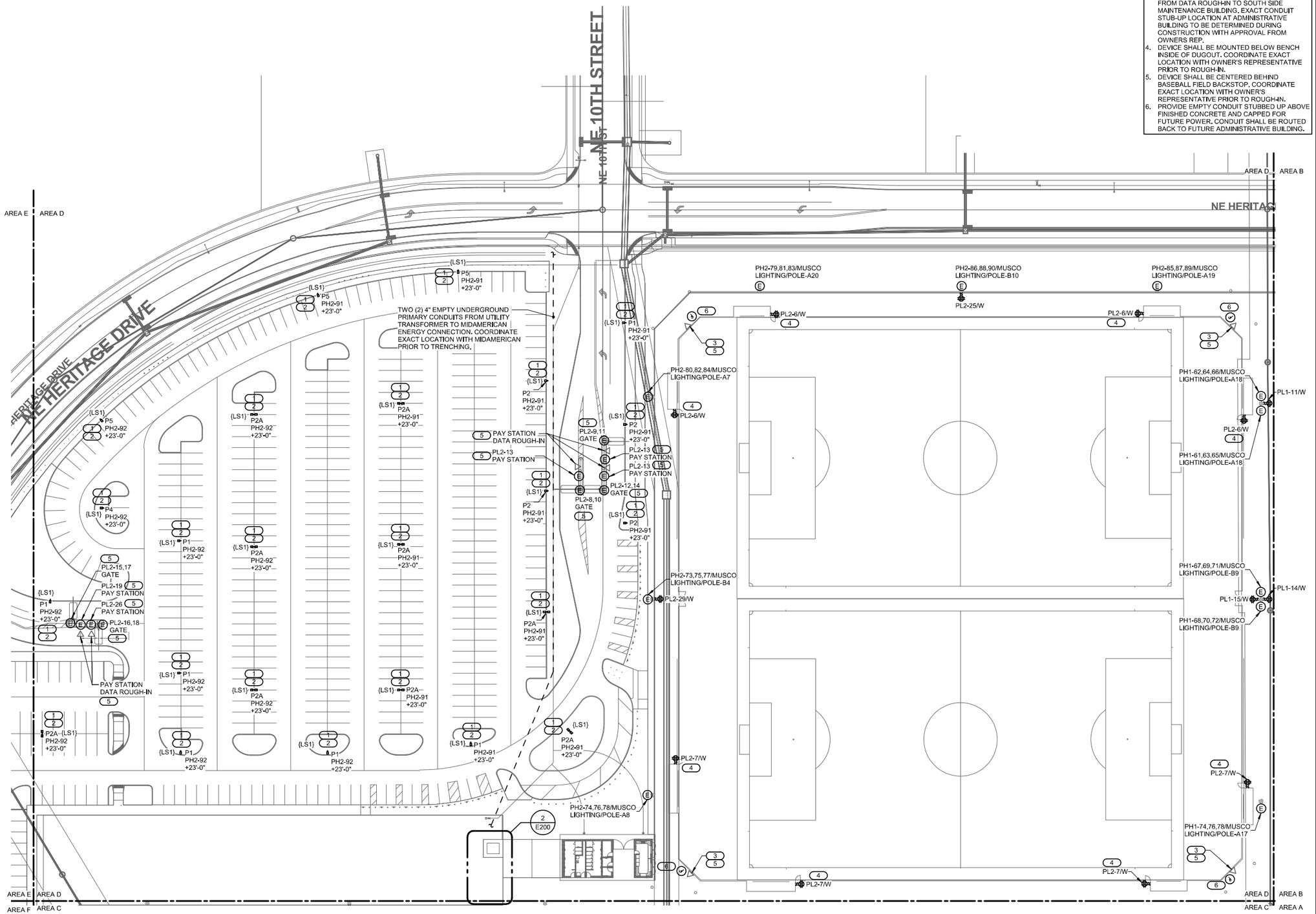
E103

SHEET NOTES:

1. ALL UNDERGROUND CIRCUITS SHALL BE ROUTED 30" BELOW FINISHED GRADE. COORDINATE EXACT ROUTING WITH CIVIL CONTRACTOR PRIOR TO INSTALLATION.

KEYNOTES: (#)

1. REFER 1/E400 FOR EXTENDED POLE BASE DETAIL.
2. REFER 5/E400 FOR EXTERIOR LIGHTING CONTROL DETAIL.
3. PROVIDE (2) 2" UNDERGROUND CONDUIT FROM DATA ROUGH-IN TO SOUTH SIDE MAINTENANCE BUILDING. EXACT CONDUIT STUB-UP LOCATION AT ADMINISTRATIVE BUILDING TO BE DETERMINED DURING CONSTRUCTION WITH APPROVAL FROM OWNERS REP.
4. DEVICE SHALL BE MOUNTED BELOW BENCH INSIDE OF DUGOUT. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
5. DEVICE SHALL BE CENTERED BEHIND BASEBALL FIELD BACKSTOP. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
6. PROVIDE EMPTY CONDUIT STUBBED UP ABOVE FINISHED CONCRETE AND CAPPED FOR FUTURE POWER. CONDUIT SHALL BE ROUTED BACK TO FUTURE ADMINISTRATIVE BUILDING.



1 ELECTRICAL SITE PLAN - AREA D

1" = 80'-0"

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	100% CONSTRUCTION DOCUMENTS
Date	10/10/2022
Project #	22006558.00
Drawn	KYHIL
Checked	KRISPI
Approved	KRISPI

SHEET TITLE

ELECTRICAL SITE PLAN - AREA D

SCALE

Scale: 1" = 40'-0"

SHEET NUMBER

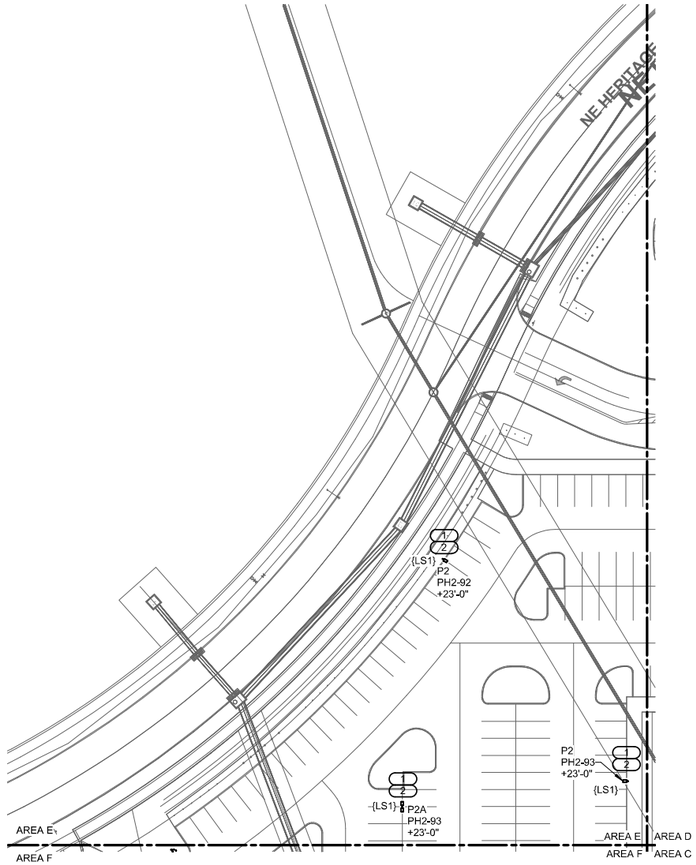
E104

SHEET NOTES:

1. ALL UNDERGROUND CIRCUITS SHALL BE ROUTED 30" BELOW FINISHED GRADE. COORDINATE EXACT ROUTING WITH CIVIL CONTRACTOR PRIOR TO INSTALLATION.

KEYNOTES: (#)

1. REFER 1/E400 FOR EXTENDED POLE BASE DETAIL.
2. REFER 5/E400 FOR EXTERIOR LIGHTING CONTROL DETAIL.



1 ELECTRICAL SITE PLAN - AREA E

1" = 80'-0"

NORTH

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	**100% CONSTRUCTION DOCUMENTS**
Date	**10/10/2022**
Project #	**22006558.00**
Drawn	**KYHIL**
Checked	**KRISPI**
Approved	**KRISPI**

SHEET TITLE

ELECTRICAL SITE PLAN - AREA E

SCALE

Scale: **1" = 40'-0"**

SHEET NUMBER

E105

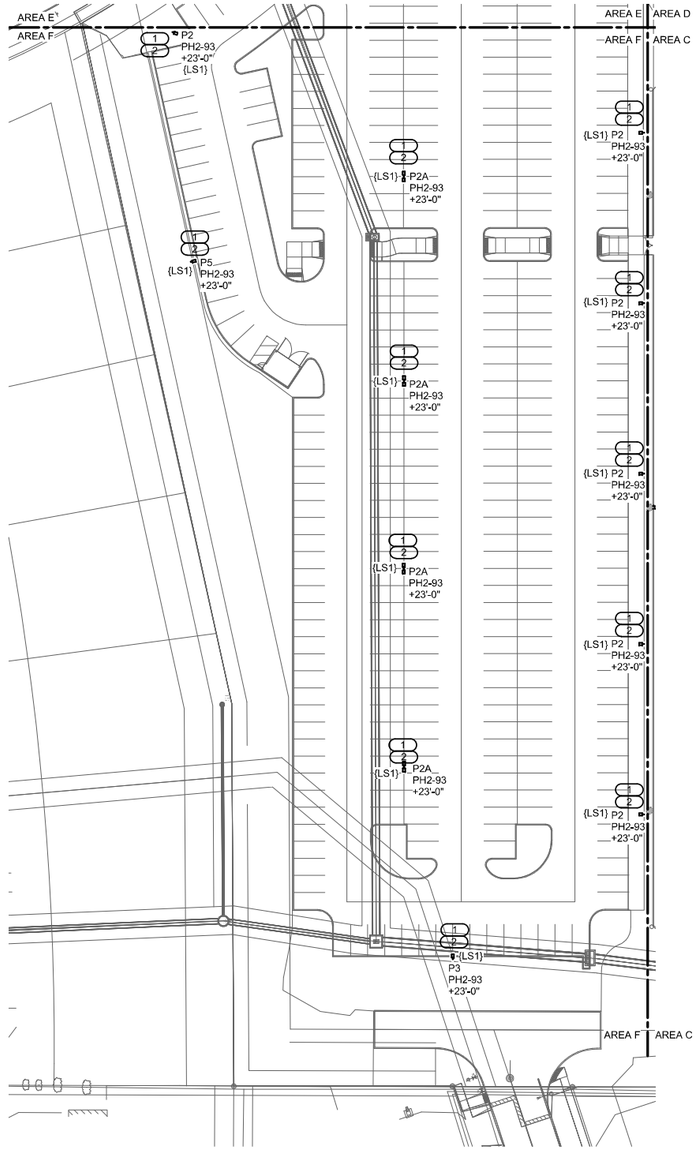
22006558.00 10/11/2022 4:19:08 PM Grimes-IA-Grimes Plex

SHEET NOTES:

1. ALL UNDERGROUND CIRCUITS SHALL BE ROUTED 30" BELOW FINISHED GRADE. COORDINATE EXACT ROUTING WITH CIVIL CONTRACTOR PRIOR TO INSTALLATION.

KEYNOTES: (#)

1. REFER 1/E400 FOR EXTENDED POLE BASE DETAIL.
2. REFER 5/E400 FOR EXTERIOR LIGHTING CONTROL DETAIL.



1 ELECTRICAL SITE PLAN - AREA F

1" = 80'-0"

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	100% CONSTRUCTION DOCUMENTS
Date	10/10/2022
Project #	22006558.00
Drawn	KYHIL
Checked	KRISPI
Approved	KRISPI

SHEET TITLE

ELECTRICAL SITE PLAN - AREA F

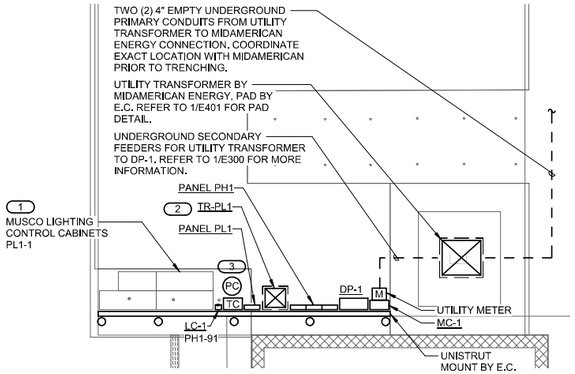
SCALE

Scale: 1" = 40'-0"

SHEET NUMBER

E106

22006558.00 10/11/2022 4:19:09 PM Grimes-IA-Grimes Plex

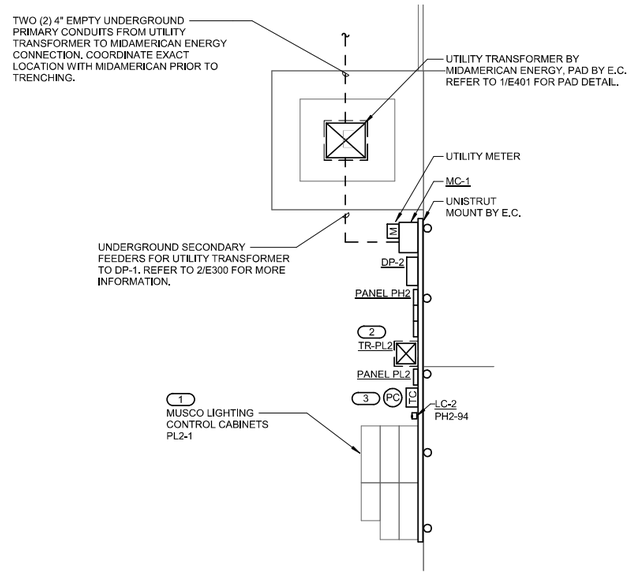


1 ELECTRICAL SITE PLAN - AREA B - SOUTH SIDE SERVICE ENTRANCE

1/16" = 1'-0"

KEYNOTES: (#)

1. LIGHTING CONTROL CABINETS PROVIDED BY MUSCO LIGHTING. E.C. SHALL PROVIDE CIRCUITING AND INSTALLATION OF PANELS.
2. REFER TO 3/E400 FOR PAD MOUNT DETAIL.
3. REFER 2/E401 FOR PHOTOCELL MOUNTING DETAIL.



2 ELECTRICAL SITE PLAN - AREA D - NORTH SIDE SERVICE ENTRANCE

1/16" = 1'-0"

KEYNOTES: (#)

1. LIGHTING CONTROL CABINETS PROVIDED BY MUSCO LIGHTING. E.C. SHALL PROVIDE CIRCUITING AND INSTALLATION OF PANELS.
2. REFER TO 3/E400 FOR PAD MOUNT DETAIL.
3. REFER 2/E401 FOR PHOTOCELL MOUNTING DETAIL.

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	100% CONSTRUCTION DOCUMENTS
Date	10/10/2022
Project #	22006558.00
Drawn	KYHIL
Checked	KRISPI
Approved	KRISPI

SHEET TITLE

ELECTRICAL ENLARGED PLANS

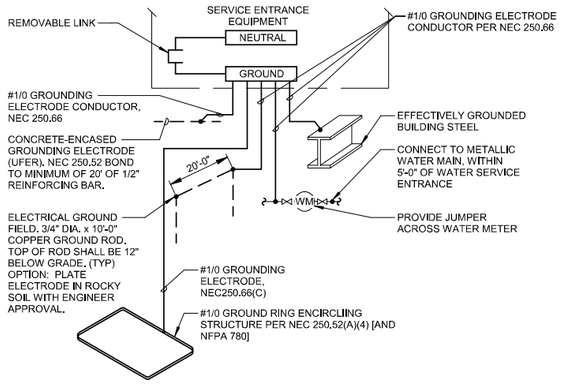
SCALE

Scale: 1/8" = 1'-0"

SHEET NUMBER

E200

22006558.00 10/11/2022 4:19:09 PM Grimes- IA-Grimes Plex

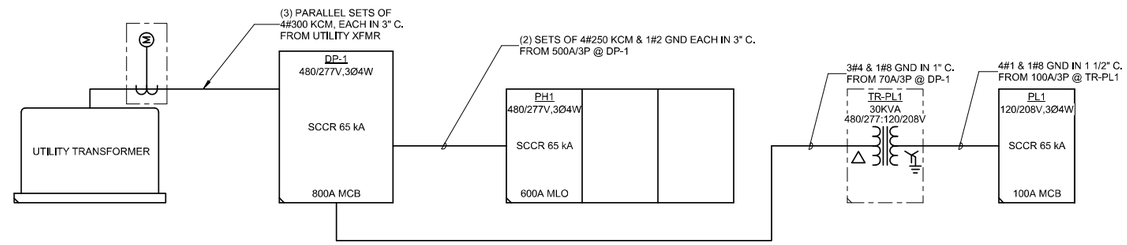


NOTES.

1. 1. REFER TO SPECIFICATION SECTION 26 05 26 GROUNDING AND BONDING

3 SERVICE ENTRANCE GROUNDING ELECTRODE SYSTEM DETAIL

NO SCALE

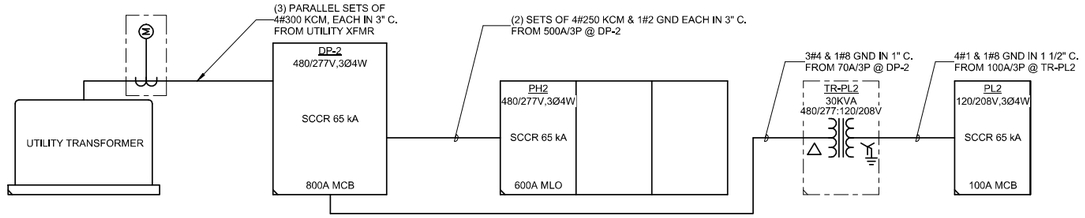


NOTES.

1. REFER TO 3/E300 FOR SERVICE ENTRANCE GROUNDING DETAIL.

1 AREA B - SOUTH SIDE SERVICE ENTRANCE - RISER DIAGRAM

NO SCALE



NOTES.

1. REFER TO 3/E300 FOR SERVICE ENTRANCE GROUNDING DETAIL.

2 AREA D - NORTH SIDE SERVICE ENTRANCE - RISER DIAGRAM

NO SCALE

22006558.00 10/11/2022 4:19:09 PM Grimes-IA-Grimes Plex

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.
<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	100% CONSTRUCTION DOCUMENTS
Date	10/10/2022
Project #	22006558.00
Drawn	KYHIL
Checked	KRISPI
Approved	KRISPI

SHEET TITLE

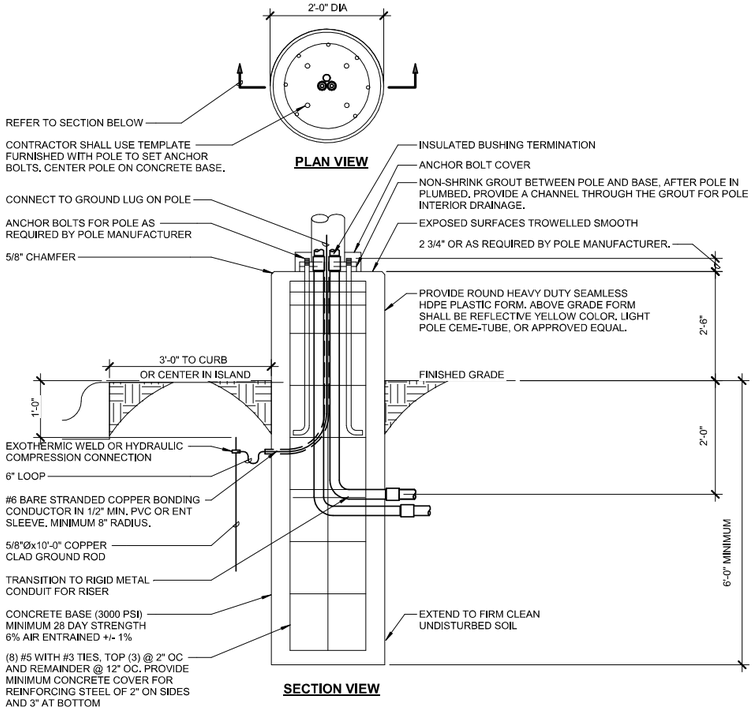
ELECTRICAL ONE-LINE

SCALE

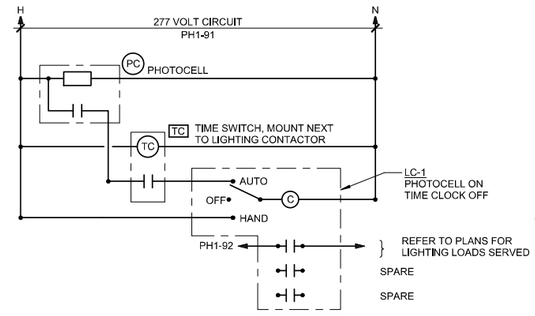
Scale: 12" = 1'-0"

SHEET NUMBER

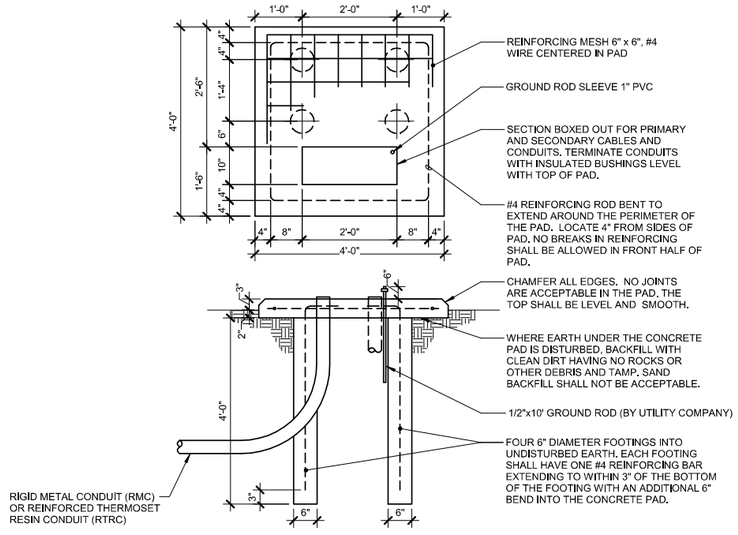
E300



1 EXTENDED POLE BASE DETAIL
NO SCALE



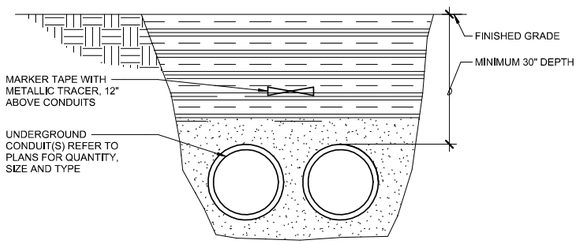
2 EXTERIOR LIGHTING CONTROL DETAIL-SOUTH SIDE
NO SCALE



NOTES:

1. CONCRETE: fc ≥ 3500 PSI AT 28 DAYS.
2. REINFORCING STEEL: ASTM A 615-60.
3. 6x6-4.5x4.5 WELDED WIRE FABRIC (WWF): ASTM A 185.
4. SOIL: ≥ 95 PERCENT PROCTOR DENSITY OR 55 PSI PBV.
5. GENERAL CONTRACTOR TO PROVIDE TRANSFORMER PAD AS SHOWN. E.C. TO COORDINATE CONDUIT ROUGH-IN WITH G.C.
6. (TRANSFORMER PAD DETAILS FOR BIDDING ONLY. VERIFY FINAL REQUIREMENTS AND DIMENSIONS WITH UTILITY COMPANY.)

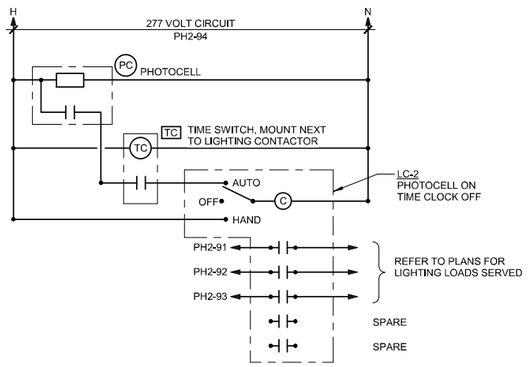
3 TRANSFORMER PAD DETAIL
NO SCALE



NOTES:

1. INSTALL 200 lb TENSILE STRENGTH PULL ROPE IN ALL EMPTY CONDUITS.
2. TRENCHING AND BACKFILL ACCORDING TO SPECIFICATION SECTION 26 05 00.

4 UNDERGROUND CONDUIT DETAIL
NO SCALE



5 EXTERIOR LIGHTING CONTROL DETAIL - NORTH SIDE
NO SCALE

IMEG
The FUTURE Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	100% CONSTRUCTION DOCUMENTS
Date	10/10/2022
Project #	22006558.00
Drawn	KYHIL
Checked	KRISPI
Approved	KRISPI

SHEET TITLE
ELECTRICAL DETAILS

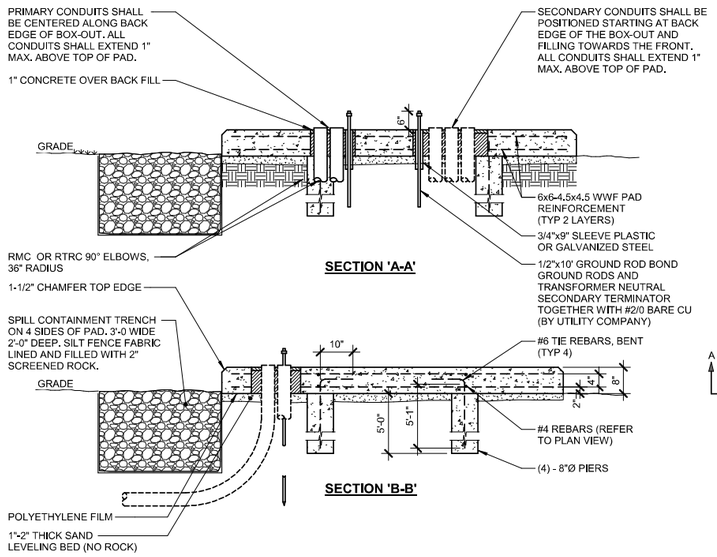
SCALE
Scale: 12" = 1'-0"

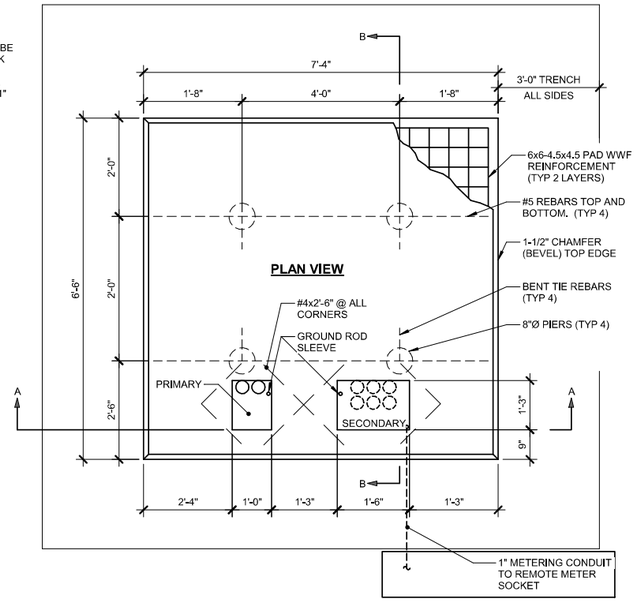
SHEET NUMBER
E400

Grimes- IA-Grimes Plex

Project Address

City of Grimes



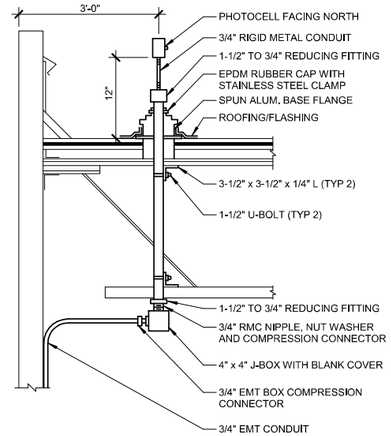


NOTES:

1. CONCRETE: fc ≥ 3500 PSI AT 28 DAYS.
2. REINFORCING STEEL: ASTM A 615-60.
3. 6x6-4.5x4.5 WELDED WIRE FABRIC (WWF): ASTM A 185.
4. SOIL: ≥ 95 PERCENT PROCTOR DENSITY OR 55 PSI PBV.
5. GENERAL CONTRACTOR TO PROVIDE TRANSFORMER PAD AS SHOWN. E.C. TO COORDINATE CONDUIT ROUGH-IN WITH G.C.
6. VERIFY FINAL REQUIREMENTS AND DIMENSIONS WITH UTILITY COMPANY.

1 TRANSFORMER PAD DETAIL (225-500 KVA)

NO SCALE



NOTES

1. STRUCTURAL DETAIL SHOWN IS TO BE REPRESENTATIVE ONLY. REFER TO ARCHITECTURAL DRAWINGS AND STRUCTURAL DRAWINGS FOR ACTUAL CONDITIONS ON THIS PROJECT.

2 PHOTOCELL MOUNTING DETAIL

NO SCALE

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	100% CONSTRUCTION DOCUMENTS
Date	10/10/2022
Project #	22006558.00
Drawn	KYHIL
Checked	KRISPI
Approved	KRISPI

SHEET TITLE

ELECTRICAL DETAILS

SCALE

Scale: 12" = 1'-0"

SHEET NUMBER

E401

22006558.00 10/11/2022 4:19:10 PM Grimes- IA-Grimes Plex

LED LUMINAIRE SCHEDULE

(DESC) DOOR:	**DISTRIBUTION:**	**BEAMWIDTH:**	**(L/L) LENS/LOUVER:**	K19 - KSH19 ,156" ACRYLIC
FA - FLAT ALUMINUM	II - ANSI/ES TYPE 2 DISTRIBUTION	NSP - VERY NARROW SPOT	A - .125"ACRYLIC	M – MATTE DIFFUSE CLEAR
FS - FLAT STEEL	III - ANSI/ES TYPE 3 DISTRIBUTION	SP - SPOT	B - BAFFLE/LOUVER	N - NONE
RA - REGRESSED ALUMINUM	IV - ANSI/ES TYPE 4 DISTRIBUTION	MD - MEDIUM	C - CLEAR ALZAK	P - POLYCARBONATE
RS - REGRESSED STEEL	V - ANSI/ES TYPE 5 DISTRIBUTION	WD - WIDE	F - FROSTED ACRYLIC	R - HIGH IMPACT DR ACRYLIC
FINISH:		VWD - VERY WIDE	G - TEMPERED GLASS	SS – SEMI-SPECULAR CLEAR
PAF - PAINT AFTER FABRICATION		WW - WALL WASH	K - KSH12 .125" ACRYLIC	O - OTHER (SEE DESCRIPTION)
CFSA - COLOR-FINISH SELECTION BY ARCHITECT				[DESIGN SPECIFIC BLANKS]
(MTG) MOUNTING:	RE - RECESSED		**(WATT) PER: FIX - FIXTURE, FT - FOOT, LAMP**	
CL - CEILING SURFACE	SP - SUSPENDED		**(TYPE) LED**	RGB - COLOR CHANGING LED
CV - COVE	SU - SURFACE		LED - LIGHT EMITTING DIODE	RGBW - COLOR CHANGING + WHITE
FR - FLANGED RECESSED	UC - UNDER CABINET		TLED - TUBULAR LED LAMP	RGBA - COLOR CHANGING + AMBER
P - PERIMETER	WL - WALL		OLED - ORGANIC LED	RLED - RETROFIT LED
PL - POLE	O - OTHER (SEE DESCRIPTION)		DLED - DYNAMIC TUNABLE LED	WLED - WARM DIM LED
			O - OTHER	
(TYPE) DRIVER:				
0-10V - 0-10V DIMMING	EB - ELECTRONIC	HL - HIGH/LOW (100%/50%) STEP DIM		MV - MULTI-VOLTAGE ELECTRONIC
DALI - DIGITAL ADDRESSABLE	ELV - ELECTRONIC LOW VOLTAGE	LINE - LINE VOLTAGE DIMMING		REM - REMOTE
DMX - DIGITAL MULTIPLEX	EM - EMERGENCY BATTERY	ML - MULTI-LEVEL SWITCHING		O - OTHER (SEE DESCRIPTION)

CATALOG NUMBER SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND CATALOG NUMBER ONLY. THE COMPLETE DESCRIPTION AND THE SPECIFICATION SHALL BE COORDINATED WITH THE CATALOG NUMBER TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN.

VERIFY AND COORDINATE ALL CEILING TYPES WITH LUMINAIRE MOUNTING AND TRIM REQUIREMENTS PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER. CONFIRM ALL COLORS AND FINISHES OF ALL LUMINAIRE COMPONENTS WITH ARCHITECT AND INTERIOR DESIGNER PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER. UNLESS INDICATED ON LIGHTING PLANS OR BELOW, REFER TO ARCHITECTURAL AND INTERIOR DESIGN ELEVATIONS, SECTIONS AND DETAILS FOR ALL SUSPENDED AND WALL MOUNTED LUMINAIRE MOUNTING HEIGHTS.

REFER TO SPECIFICATION SECTIONS LED LIGHTING 26 51 19 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
EXTERIOR CORRELATED COLOR TEMPERATURE 4000K, COLOR RENDERING INDEX (CRI) AT OR ABOVE 80, UNLESS NOTED OTHERWISE.

ITEM	DESCRIPTION	L/L	MTG	DIMENSIONS L	W	H	DIA	WATT MAX ANSI	PER	LED TYPE	QTY	DELIVERED LUMENS (MIN)	DRIVER VOLTS	TYPE	APPROVED MANUFACTURER / SERIES
P1	POLE MOUNTED SITE LUMINAIRE, SINGLE-PIECE DIE-CAST ALUMINUM HOUSING, EXTERIOR PARTS ARE PROTECTED BY A ZINC-INFUSED SUPER DURABLE TGIC THERMOSET POWDER COAT. ACRYLIC LENSES. TYPE III DISTRIBUTION, UL LISTED FOR WET LOCATIONS. BLACK COLOR FINISH .20' TRADITIONAL STRAIGHT ROUND STEEL POLE WITH BLACK PAINTED FINISH.	O	PL	33"	13"	8"	NA	125	HEAD	LED		11,404	277	0-10V	LITHONIA LIGHTING DSX1-LED-P4-40K-T3M-MVOL-HS OR PRE-APPROVED EQUIVALEN
P2	POLE MOUNTED SITE LUMINAIRE, SINGLE-PIECE DIE-CAST ALUMINUM HOUSING, EXTERIOR PARTS ARE PROTECTED BY A ZINC-INFUSED SUPER DURABLE TGIC THERMOSET POWDER COAT, ACRYLIC LENSES, TYPE IV DISTRIBUTION, UL LISTED FOR WET LOCATIONS. BLACK COLOR FINISH. 20' TRADITIONAL STRAIGHT ROUND STEEL POLE WITH BLACK PAINTED FINISH.	O	PL	30.5"	13.5"	3"	NA	125	HEAD	LED		11,006	277	0-10V	LITHONIA LIGHTING DSX1-LED-P4-40K-T4M-MVOL-HS OR PRE-APPROVED EQUIVALEN
P2A	DOUBLE HEAD, POLE MOUNTED SITE LUMINAIRE, SINGLE-PIECE DIE-CAST ALUMINUM HOUSING, EXTERIOR PARTS ARE PROTECTED BY A ZINC-INFUSED SUPER DURABLE TGIC THERMOSET POWDER COAT, ACRYLIC LENSES. TYPE IV DISTRIBUTION, UL LISTED FOR WET LOCATIONS. BLACK COLOR FINISH. 20' TRADITIONAL STRAIGHT ROUND STEEL POLE WITH BLACK PAINTED FINISH.	O	PL	30,5"	13,5"	3"	NA	125	HEAD	LED		11,006	277	0-10V	LITHONIA LIGHTING QTY (2) DSX1-LED-P4-40K-T4M-MVOL-HS OR PRE-APPROVED EQUIVALEN
P3	POLE MOUNTED SITE LUMINAIRE, SINGLE-PIECE DIE-CAST ALUMINUM HOUSING, EXTERIOR PARTS ARE PROTECTED BY A ZINC-INFUSED SUPER DURABLE TGIC THERMOSET POWDER COAT. ACRYLIC LENSES. TYPE III DISTRIBUTION, UL LISTED FOR WET LOCATIONS. BLACK COLOR FINISH. 20' TRADITIONAL STRAIGHT ROUND STEEL POLE WITH BLACK PAINTED FINISH.	O	PL	33"	13"	8"	NA	102	HEAD	LED		9,898	277	0-10V	LITHONIA LIGHTING DSX1-LED-P2-40K-T3M-MVOL-HS OR PRE-APPROVED EQUIVALEN
P4	POLE MOUNTED SITE LUMINAIRE, SINGLE-PIECE DIE-CAST ALUMINUM HOUSING, EXTERIOR PARTS ARE PROTECTED BY A ZINC-INFUSED SUPER DURABLE TGIC THERMOSET POWDER COAT. ACRYLIC LENSES. TYPE V DISTRIBUTION, UL LISTED FOR WET LOCATIONS. BLACK COLOR FINISH. 20' TRADITIONAL STRAIGHT ROUND STEEL POLE WITH BLACK PAINTED FINISH.	O	PL	33"	13"	8"	NA	125	HEAD	LED		15,080	277	0-10V	LITHONIA LIGHTING DSX1-LED-P4-40K-T5S-MVOL OR PRE-APPROVED EQUIVALEN
P5	POLE MOUNTED SITE LUMINAIRE, SINGLE-PIECE DIE-CAST ALUMINUM HOUSING, EXTERIOR PARTS ARE PROTECTED BY A ZINC-INFUSED SUPER DURABLE TGIC THERMOSET POWDER COAT, ACRYLIC LENSES, TYPE BACKLIGHT CONTROL DISTRIBUTION, UL LISTED FOR WET LOCATIONS. BLACK COLOR FINISH. 20' TRADITIONAL STRAIGHT ROUND STEEL POLE WITH BLACK PAINTED FINISH.	O	PL	33"	13"	8"	NA	125	HEAD	LED		11,877	277	0-10V	LITHONIA LIGHTING DSX1-LED-P4-40K-BLC-MVOL OR PRE-APPROVED EQUIVALEN
P6	POLE MOUNTED SITE LUMINAIRE, SINGLE-PIECE DIE-CAST ALUMINUM HOUSING, EXTERIOR PARTS ARE PROTECTED BY A ZINC-INFUSED SUPER DURABLE TGIC THERMOSET POWDER COAT. ACRYLIC LENSES. TYPE IV DISTRIBUTION, UL LISTED FOR WET LOCATIONS. BLACK COLOR FINISH. 20' TRADITIONAL STRAIGHT ROUND STEEL POLE WITH BLACK PAINTED FINISH.	O	PL	30,5"	13,5"	3"	NA	138	HEAD	LED		12,025	277	0-10V	LITHONIA LIGHTING DSX1-LED-P5-40K-T4M-MVOL-HS OR PRE-APPROVED EQUIVALEN

PLAN ID	**LIGHTING CONTROL SEQUENCE DESCRIPTION:** **NOTES:** **1, {L##} DENOTES THE LIGHTING SEQUENCE OF OPERATIONS FOR THIS SPACE.** **2, [Z#] DENOTES LIGHTING CONTROL ZONE. PROVIDE SEPARATE CONTROL OF EACH CONTROLLED ZONE. LUMINAIRES ASSOCIATED WITH THE SAME ZONE SHALL OPERATE TOGETHER WITHIN THE SAME PROGRAMMED SCENE.** **4, VERIFY AND COORDINATE ALL TIME CLOCK SETTINGS WITH OWNER PRIOR TO FINAL PROGRAMMING.**
{LS1}	Sequence: Switched lights are controlled in this space. ON: The lights are turned on via exterior mounted photocell, when insufficient daylight is available. OFF: The lights automatically turn off by astronomic time switch.

DISTRIBUTION PANEL DP-1

ENCLOSURE: NEMA 3
FED FROM: --
LOCATION:

SOLID NEUTRAL GROUND BUS

MAIN: 800 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC UNKNOWN 0.00 kA

NOTES:

CKT	LOAD DESCRIPTION	Load	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	PH1	285,11 kVA	3	500 A	500 A			(2) SETS OF 4#250 KCM & 1#2 GND EACH IN ...	
2	TR-PL1	20.22 kVA	3	100 A	70 A			3#4 & 1#8 GND IN 1" C.	
3	SPACE FOR (1) 225A/3P BREAKER	–	3	--	–	–	–	–	–
4	SPACE FOR (1) 225A/3P BREAKER	–	3	--	–	–	–	–	–
5	SPACE FOR (1) 400A/3P BREAKER	–	3	--	–	–	–	–	–

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	285,106 kVA	100,00%	285,106 kVA		
Power	1,5 kVA	100,00%	1,5 kVA	**TOTAL CONNECTED LOAD:**	305,33 kVA
Receptacles	18.72 kVA	76.71%	14.36 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	300.966 kVA
				TOTAL CONNECTED AMPS:	367,25 A
				TOTAL ESTIMATED DEMAND AMPS:	362 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS, THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

DISTRIBUTION PANEL DP-2

ENCLOSURE: NEMA 3
FED FROM: --
LOCATION:

SOLID NEUTRAL GROUND BUS

MAIN: 800 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC UNKNOWN 0.00 kA

NOTES:

CKT	LOAD DESCRIPTION	LOAD	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	PH2	251.5 kVA	3	600 A	500 A			(2) SETS OF 4#250 KCM & 1#2 GND EACH IN ...	
2	TR-PL2	32.04 kVA	3	100 A	70 A			3#4 & 1#8 GND IN 1" C.	
3	SPACE FOR (1) 225A/3P BREAKER	–	3	--	–	–	–	–	–
4	SPACE FOR (1) 225A/3P BREAKER	–	3	--	–	–	–	–	–

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	251,496 kVA	100.00%	251,496 kVA		
Power	9 kVA	100.00%	9 kVA	**TOTAL CONNECTED LOAD:**	283.54 kVA
Receptacles	23.04 kVA	71.70%	16.52 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	277.016 kVA
				TOTAL CONNECTED AMPS:	341.04 A
				TOTAL ESTIMATED DEMAND AMPS:	333.2 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

TRANSFORMER SCHEDULE

TYPE:		ACCESSORIES & OPTIONS
K1 - DOE 2016 DRY TYPE	AUT - AUTOTRANSFORMER	AL - ALUMINUM WINDINGS
K4 - K4 RATED DRY TYPE	BB - BUCK BOOST	CU - COPPER WINDINGS
K13 - K13 RATED DRY TYPE	LIQ - LIQUID FILLED	RS - EPOXY RESIN ENCAPSULATED
HM - HARMONIC MITIGATING		FL - FILTERED
PE - NEMA PREMIUM EFFICIENCY		NV - NON-VENTILATED
		NL - 200% RATED NEUTRAL
		EL - ELECTROSTATIC SHIELD

ITEM	KVA RATING	TYPE	ENCLOSURE	MAX. TEMP. RISE C.	PRIMARY VOLTS	PRIMARY PH	SECONDARY VOLTS	SECONDARY PH	REQUIRED ACCESSORIES & OPTIONS	APPROVED MANUFACTURER
TR-PL1	30 kVA	K-1	NEMA 3	150	480	3	120/208	3	CU	SQUARE D 7400 EX SERIES EATON V48M SERIES GENERAL ELECTRIC 9T SERIES HAMMOND TYPE SG SIEMENS 3F3
TR-PL2	30 kVA	K-1	NEMA 3	150	480	3	120/208	3	CU	SQUARE D 7400 EX SERIES EATON V48M SERIES GENERAL ELECTRIC 9T SERIES HAMMOND TYPE SG SIEMENS 3F3

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

Grimes- IA-Grimes Plex

Project Address

City of Grimes

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.
<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	**100% CONSTRUCTION DOCUMENTS**
Date	**10/10/2022**
Project #	**22006558.00**
Drawn	**KYHIL**
Checked	**KRISPI**
Approved	**KRISPI**

SHEET TITLE

ELECTRICAL SCHEDULES

SCALE

Scale:

SHEET NUMBER

E500

PANEL PH1

MOUNTING: SURFACE
ENCLOSURE: NEMA 3
FED FROM: 500 A/3P @ DP-1
LOCATION:

SOLID NEUTRAL GROUND BUS

MAIN: 600 A MLO
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC UNKNOWN 0.00 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A		B		C		WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	MUSCO LIGHTING/POLE-A32	20 A	3	12	12	12	1.27	5.39					8	8	8	3	25 A	MUSCO LIGHTING/POLE-B13	2	
–	3	–	–	–	–	–	–			1.27	5.39			–	–	–	–	–	--	4	–
–	5	–	–	–	–	–	–					1.27	5.39	–	–	–	–	–	–	6	–
	7	MUSCO LIGHTING/POLE-A29	20 A	3	10	10	10	2.87	3.34					8	8	8	3	20 A	MUSCO LIGHTING/POLE-A33	8	
–	9	–	–	–	–	–	–			2.87	3.34			–	–	–	–	–	--	10	–
–	11	–	–	–	–	–	–					2.87	3.34	–	–	–	–	–	–	12	–
	13	MUSCO LIGHTING/POLE-A22	20 A	3	8	8	8	2.88	2.96					10	10	10	3	20 A	MUSCO LIGHTING/POLE-A21	14	
–	15	–	–	–	–	–	–			2.88	2.96			–	–	–	–	–	--	16	–
–	17	–	–	–	–	–	–					2.88	2.96	–	–	–	–	–	–	18	–
	19	MUSCO LIGHTING/POLE-B11	30 A	3	8	8	8	5.73	5.73					8	8	8	3	30 A	MUSCO LIGHTING/POLE-B11	20	
–	21	–	–	–	–	–	–			5.73	5.73			–	–	–	–	–	--	22	–
–	23	–	–	–	–	–	–					5.73	5.73	–	–	–	–	–	–	24	–
	25	MUSCO LIGHTING/POLE-A25	20 A	3	12	12	12	1.84	1.84					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A25	26	
–	27	–	–	–	–	–	–			1.84	1.84			–	–	–	–	–	--	28	–
–	29	–	–	–	–	–	–					1.84	1.84	–	–	–	–	–	–	30	–
	31	MUSCO LIGHTING/POLE-B12	30 A	3	10	10	10	5.73	1.93					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A27	32	
–	33	–	–	–	–	–	–			5.73	1.93			–	–	–	–	–	--	34	–
–	35	–	–	–	–	–	–					5.73	1.93	–	–	–	–	–	–	36	–
	37	MUSCO LIGHTING/POLE-A31	20 A	3	12	12	12	2.96	2.88					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A30	38	
–	39	–	–	–	–	–	–			2.96	2.88			–	–	–	–	–	--	40	–
–	41	–	–	–	–	–	–					2.96	2.88	–	–	–	–	–	–	42	–
	43	MUSCO LIGHTING/POLE-A26	20 A	3	12	12	12	2.88	2.88					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A26	44	
–	45	--	–	–	–	–	–			2.88	2.88			–	–	–	–	–	–	46	–
–	47	--	–	–	–	–	–					2.88	2.88	–	–	–	–	–	–	48	–
	49	MUSCO LIGHTING/POLE-A23	20 A	3	12	12	12	2.96	2.96					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A23	50	
–	51	--	–	–	–	–	–			2.96	2.96			–	–	–	–	–	--	52	–
–	53	--	–	–	–	–	–					2.96	2.96	–	–	–	–	–	–	54	–
	55	MUSCO LIGHTING/POLE-A24	20 A	3	10	10	10	2.53	2.96					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A28	56	
–	57	--	–	–	–	–	–			2.53	2.96			–	–	–	–	–	--	58	–
–	59	--	–	–	–	–	–					2.53	2.96	–	–	–	–	–	–	60	–
	61	MUSCO LIGHTING/POLE-A18	20 A	3	12	12	12	1.27	1.27					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A18	62	
–	63	--	–	–	–	–	–			1.27	1.27			–	–	–	–	–	–	64	–
–	65	--	–	–	–	–	–					1.27	1.27	–	–	–	–	–	–	66	–
	67	MUSCO LIGHTING/POLE-B9	25 A	3	8	8	8	5.5	5.5					8	8	8	3	25 A	MUSCO LIGHTING/POLE-B9	68	
–	69	--	–	–	–	–	–			5.5	5.5			–	–	–	–	–	–	70	–
–	71	--	–	–	–	–	–					5.5	5.5	–	–	–	–	–	–	72	–
	73	MUSCO LIGHTING/POLE-A15	20 A	3	12	12	12	1.27	1.27					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A17	74	
–	75	--	–	–	–	–	–			1.27	1.27			–	–	–	–	–	–	76	–
–	77	--	–	–	–	–	–					1.27	1.27	–	–	–	–	–	–	78	–
	79	MUSCO LIGHTING/POLE-B8	25 A	3	6	6	6	5.5	5.5					6	6	6	3	25 A	MUSCO LIGHTING/POLE-B8	80	
–	81	--	–	–	–	–	–			5.5	5.5			–	–	–	–	–	–	82	–
–	83	--	–	–	–	–	–					5.5	5.5	–	–	–	–	–	–	84	–
	85	MUSCO LIGHTING/POLE-A14	20 A	3	12	12	12	1.27	1.27					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A14	86	
–	87	--	–	–	–	–	–			1.27	1.27			–	–	–	–	–	–	88	–
–	89	--	–	–	–	–	–					1.27	1.27	–	–	–	–	–	–	90	–
	91	LC-1	20 A	1	12	12	12	0	2.73					8	8	8	1	20 A	SITE LIGHTING	92	
–	93	SPARE	20 A	1	–	–	–			0	0			–	–	–	1	20 A	SPARE	94	–
–	95	SPARE	20 A	1	–	–	–					0	0	–	–	–	1	20 A	SPARE	96	–
–	97	SPARE	20 A	1	–	–	–	0	0					–	–	–	1	20 A	SPARE	98	–
–	99	SPARE	20 A	1	–	–	–			0	0			–	–	–	1	20 A	SPARE	100	–
–	101	SPARE	20 A	1	–	–	–					0	0	–	–	–	1	20 A	SPARE	102	–
–	103	SPARE	20 A	1	–	–	–	0	0					–	–	–	1	20 A	SPARE	104	–
–	105	SPARE	20 A	1	–	–	–			0	0			–	–	–	1	20 A	SPARE	106	–
–	107	SPACE	–	1	–	–	–					–	–	–	–	–	1	–	SPACE	108	–
–	109	SPACE	–	1	–	–	–	--	–					–	–	–	1	–	SPACE	110	–
–	111	SPACE	–	1	–	–	–			–	–			–	–	–	1	–	SPACE	112	–
						Total Load:		96.85 kVA		94.13 kVA		94.13 kVA									
						Total Amps:		349.65		339.81		339.81									

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	285.106 kVA	100.00%	285.106 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	285.11 kVA
TOTAL ESTIMATED DEMAND LOAD:	285.106 kVA
TOTAL CONNECTED AMPS:	342.93 A
TOTAL ESTIMATED DEMAND AMPS:	342.9 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL PH2

MOUNTING: SURFACE
ENCLOSURE: NEMA 3
FED FROM: 500 A/3P @ DP-2
LOCATION:

SOLID NEUTRAL GROUND BUS

MAIN: 600 A MLO
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC UNKNOWN 0.00 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A		B		C		WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	MUSCO LIGHTING/POLE-B3	25 A	3	10	10	10	5.26	1.84					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A6	2	
–	3	–	–	–	–	–	--			5.26	1.84			–	–	–	–	–	–	4	–
–	5	–	–	–	–	–	--					5.26	1.84	–	–	–	–	–	–	6	–
	7	MUSCO LIGHTING/POLE-A4	20 A	3	12	12	12	1.27	1.27					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A5	8	
–	9	–	–	–	–	–	--			1.27	1.27			–	–	–	–	–	–	10	–
–	11	–	–	–	–	–	--					1.27	1.27	–	–	–	–	–	–	12	–
	13	MUSCO LIGHTING/POLE-A3	20 A	3	12	12	12	1.27	5.26					8	8	8	3	25 A	MUSCO LIGHTING/POLE-B2	14	
–	15	–	–	–	–	–	--			1.27	5.26			–	–	–	–	–	–	16	–
–	17	–	–	–	–	–	--					1.27	5.26	–	–	–	–	–	–	18	–
	19	MUSCO LIGHTING/POLE-B1	25 A	3	8	8	8	5.26	1.27					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A2	20	
–	21	–	–	–	–	–	--			5.26	1.27			–	–	–	–	–	–	22	–
–	23	–	–	–	–	–	--					5.26	1.27	–	–	–	–	–	–	24	–
	25	MUSCO LIGHTING/POLE-A12	20 A	3	12	12	12	1.27	1.27					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A1	26	
–	27	–	–	–	–	–	--			1.27	1.27			–	–	–	–	–	–	28	–
–	29	–	–	–	–	–	--					1.27	1.27	–	–	–	–	–	–	30	–
	31	MUSCO LIGHTING/POLE-A13	20 A	3	12	12	12	1.27	5.26					6	6	6	3	25 A	MUSCO LIGHTING/POLE-B7	32	
–	33	–	–	–	–	–	--			1.27	5.26			–	–	–	–	–	–	34	–
–	35	–	–	–	–	–	--					1.27	5.26	–	–	–	–	–	–	36	–
	37	MUSCO LIGHTING/POLE-A11	20 A	3	12	12	12	1.27	1.27					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A11	38	
–	39	–	–	–	–	–	--			1.27	1.27			–	–	–	–	–	–	40	–
–	41	–	–	–	–	–	--					1.27	1.27	–	–	–	–	–	–	42	–
	43	MUSCO LIGHTING/POLE-B6	25 A	3	10	10	10	5.26	5.26					10	10	10	3	25 A	MUSCO LIGHTING/POLE-B6	44	
–	45	–	–	–	–	–	--			5.26	5.26			–	–	–	–	–	–	46	–
–	47	–	–	–	–	–	--					5.26	5.26	–	–	–	–	–	–	48	–
	49	MUSCO LIGHTING/POLE-A10	20 A	3	12	12	12	1.84	1.84					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A10	50	
–	51	–	–	–	–	–	--			1.84	1.84			–	–	–	–	–	–	52	–
–	53	–	–	–	–	–	--					1.84	1.84	–	–	–	–	–	–	54	–
	55	MUSCO LIGHTING/POLE-A9	20 A	3	12	12	12	1.84	1.84					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A9	56	
–	57	–	–	–	–	–	--			1.84	1.84			–	–	–	–	–	–	58	–
–	59	–	–	–	–	–	--					1.84	1.84	–	–	–	–	–	–	60	–
	61	MUSCO LIGHTING/POLE-B5	25 A	3	10	10	10	5.26	5.26					10	10	10	3	25 A	MUSCO LIGHTING/POLE-B5	62	
–	63	–	–	–	–	–	--			5.26	5.26			–	–	–	–	–	–	64	–
–	65	–	–	–	–	–	--					5.26	5.26	–	–	–	–	–	–	66	–
	67	MUSCO LIGHTING/POLE-A16	20 A	3	12	12	12	1.27	1.27					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A16	68	
–	69	–	–	–	–	–	--			1.27	1.27			–	–	–	–	–	–	70	–
–	71	–	–	–	–	–	--					1.27	1.27	–	–	–	–	–	–	72	–
	73	MUSCO LIGHTING/POLE-B4	25 A	3	10	10	10	5.26	1.84					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A8	74	
–	75	–	–	–	–	–	--			5.26	1.84			–	–	–	–	–	–	76	–
–	77	–	–	–	–	–	--					5.26	1.84	–	–	–	–	–	–	78	–
	79	MUSCO LIGHTING/POLE-A20	20 A	3	12	12	12	1.27	1.27					12	12	12	3	20 A	MUSCO LIGHTING/POLE-A7	80	
–	81	–	–	–	–	–	--			1.27	1.27			–	–	–	–	–	–	82	–
–	83	–	–	–	–	–	--					1.27	1.27	–	–	–	–	–	–	84	–
	85	MUSCO LIGHTING/POLE-A19	20 A	3	12	12	12	1.27	5.26					6	6	6	3	25 A	MUSCO LIGHTING/POLE-B10	86	
–	87	–	–	–	–	–	--			1.27	5.26			–	–	–	–	–	–	88	–
–	89	–	–	–	–	–	--					1.27	5.26	–	–	–	–	–	–	90	–
	91	SITE LIGHTING	20 A	1	8	8	8	2.5	2.22					8	8	8	1	20 A	SITE LIGHTING	92	
	93	SITE LIGHTING	20 A	1	6	6	6			2.61	0						1	20 A	LC-2	94	
–	95	SPARE	20 A	1	–	–	--					0	0	–	–	–	1	20 A	SPARE	96	–
–	97	SPARE	20 A	1	–	–	--	0	0					–	–	–	1	20 A	SPARE	98	–
–	99	SPARE	20 A	1	–	–	--			0	0			–	–	–	1	20 A	SPARE	100	–
–	101	SPARE	20 A	1	–	–	--					0	0	–	–	–	1	20 A	SPARE	102	–
–	103	SPARE	20 A	1	–	–	--	0	0					–	–	–	1	20 A	SPARE	104	–
–	105	SPARE	20 A	1	–	–	--			0	0			–	–	–	1	20 A	SPARE	106	–
–	107	SPACE	–	1	–	–	--					–	–	–	–	–	1	–	SPACE	108	–
–	109	SPACE	–	1	–	–	--	–	–					–	–	–	1	–	SPACE	110	–
–	111	SPACE	–	1	–	–	--			–	–			–	–	–	1	–	SPACE	112	–
						Total Load:		86.11 kVA		84.00 kVA		81.39 kVA									
						Total Amps:		312.32		304.70		293.81									

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	251.496 kVA	100.00%	251.496 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	251.50 kVA
TOTAL ESTIMATED DEMAND LOAD:	251.496 kVA
TOTAL CONNECTED AMPS:	302.50 A
TOTAL ESTIMATED DEMAND AMPS:	302.5 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.
<<<State Registration Number>>>
0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	**100% CONSTRUCTION DOCUMENTS**
Date	**10/10/2022**
Project #	**22006558.00**
Drawn	**KYHIL**
Checked	**KRISPI**
Approved	**KRISPI**

SHEET TITLE
ELECTRICAL SCHEDULES

SCALE
Scale:

SHEET NUMBER
E501

PANEL PL1

MOUNTING: SURFACE
ENCLOSURE: NEMA 3
FED FROM: 100 A/3P @ TR-PL1
LOCATION:

SOLID NEUTRAL GROUND BUS

MAIN: 100 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC UNKNOWN 0,00 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	WIRE SIZE N	WIRE SIZE G	A	B	C	WIRE SIZE G	WIRE SIZE N	WIRE SIZE H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	CONTROL CABINET	20 A	1	12	12	12	1,5	1,44		6	6	6	1	20 A	DUGOUT RECEPTACLES	2	
	3	DUGOUT RECEPTACLES	20 A	1	6	6	6		1,44	1,44	6	6	6	1	20 A	DUGOUT RECEPTACLES	4	
	5	MOBILE SCOREBOARD	20 A	1	4	4	4			1,2 1,2	3	3	3	1	20 A	MOBILE SCOREBOARD	6	
	7	MOBILE SCOREBOARD	20 A	1	4	4	4	1,2	1,2		3	3	3	1	20 A	MOBILE SCOREBOARD	8	
	9	MOBILE SCOREBOARD	20 A	1	8	8	8		1,2	1,2	6	6	6	1	20 A	MOBILE SCOREBOARD	10	
	11	MOBILE SCOREBOARD	20 A	1	4	4	4			1,2 1,2	3	3	3	1	20 A	MOBILE SCOREBOARD	12	
	13	MOBILE SCOREBOARD	20 A	1	6	6	6	1,2	1,2		4	4	4	1	20 A	MOBILE SCOREBOARD	14	
	15	MOBILE SCOREBOARD	20 A	1	4	4	4		1,2	1,2	3	3	3	1	20 A	MOBILE SCOREBOARD	16	
–	17	SPARE	20 A	1	–	–	–			0 0	–	–	–	1	20 A	SPARE	18	–
–	19	SPARE	20 A	1	–	–	–	0	0		–	–	–	1	20 A	SPARE	20	–
–	21	SPARE	20 A	1	–	–	–		0	0	–	–	–	1	20 A	SPARE	22	–
–	23	SPARE	20 A	1	–	–	–			0 0	–	–	–	1	20 A	SPARE	24	–
–	25	SPARE	20 A	1	–	–	–	0	0		–	–	–	1	20 A	SPARE	26	–
–	27	SPARE	20 A	1	–	–	–		0	0	–	–	–	1	20 A	SPARE	28	–
–	29	SPARE	20 A	1	–	–	–			0 0	–	–	–	1	20 A	SPARE	30	–
–	31	SPARE	20 A	1	–	–	–	0	0		–	–	–	1	20 A	SPARE	32	–
–	33	SPARE	20 A	1	–	–	–		0	0	–	–	–	1	20 A	SPARE	34	–
–	35	SPACE	–	1	–	–	–			– –	–	–	–	1	–	SPACE	36	–
–	37	SPACE	–	1	–	–	–	–	–		–	–	–	1	–	SPACE	38	–
–	39	SPACE	–	1	–	–	–		–	–	–	–	–	1	–	SPACE	40	–
–	41	SPACE	–	1	–	–	–			– –	–	–	–	1	–	SPACE	42	–
					Total Load:			7,74 kVA		7,68 kVA			4,80 kVA					
					Total Amps:			68,19		67,69			40,00					

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Power	1,5 kVA	100,00%	1,5 kVA
Receptacles	18,72 kVA	76,71%	14,36 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	20,22 kVA
TOTAL ESTIMATED DEMAND LOAD:	15.86 kVA
TOTAL CONNECTED AMPS:	56,13 A
TOTAL ESTIMATED DEMAND AMPS:	44 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL PL2

MOUNTING: SURFACE
ENCLOSURE: NEMA 3
FED FROM: 100 A/3P @ TR-PL2
LOCATION:

SOLID NEUTRAL GROUND BUS

MAIN: 100 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC UNKNOWN 0,00 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	WIRE SIZE N	WIRE SIZE G	A	B	C	WIRE SIZE G	WIRE SIZE N	WIRE SIZE H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	CONTROL CABINET	20 A	1	12	12	12	1,5	1,44		8	8	8	1	20 A	DUGOUT RECEPTACLES	2	
	3	DUGOUT RECEPTACLES	20 A	1	6	6	6			1,44 1,44	6	6	6	1	20 A	DUGOUT RECEPTACLES	4	
	5	DUGOUT RECEPTACLES	20 A	1	6	6	6			1,44 1,44	6	6	6	1	20 A	DUGOUT RECEPTACLES	6	
	7	DUGOUT RECEPTACLES	20 A	1	6	6	6	1,44	0,5		10	8	8	2	20 A	GATE	8	
	9	GATE	20 A	2	8	8	10		0,5	0,5	–	–	–	–	–	–	10	–
--	11	--	–	–	–	–	–			0,5 0,5	10	8	8	2	20 A	GATE	12	
	13	PAY STATION	20 A	1	8	8	8	1,5	0,5		–	–	–	–	–	–	14	–
	15	GATE	20 A	2	8	8	10		0,5	0,5	10	8	8	2	20 A	GATE	16	
--	17	--	–	–	–	–	–			0,5 0,5	–	–	–	–	–	–	18	–
	19	PAY STATION	20 A	1	8	8		0,5	1,2		6	6	6	1	20 A	RECEPTACLES	20	
	21	MOBILE SCOREBOARD	20 A	1	6	6	6		1,2	1,2	4	4	4	1	20 A	RECEPTACLES	22	
	23	MOBILE SCOREBOARD	20 A	1	4	4	4			1,2 1,2	8	8	8	1	20 A	RECEPTACLES	24	
	25	MOBILE SCOREBOARD	20 A	1	3	3	3	1,2	0,5		8	8	8	1	20 A	PAY STATION	26	
	27	MOBILE SCOREBOARD	20 A	1	4	4	4		1,2	1,2	4	4	4	1	20 A	MOBILE SCOREBOARD	28	
	29	MOBILE SCOREBOARD	20 A	1	6	6	6			1,2 1,2	4	4	4	1	20 A	MOBILE SCOREBOARD	30	
	31	MOBILE SCOREBOARD	20 A	1	3	3	3	1,2	1,2		4	4	4	1	20 A	MOBILE SCOREBOARD	32	
--	33	SPARE	20 A	1	–	–	–		0	0	–	–	–	1	20 A	SPARE	34	–
--	35	SPARE	20 A	1	–	–	–			0 0	–	–	–	1	20 A	SPARE	36	–
--	37	SPARE	20 A	1	–	–	–	0	0		–	–	–	1	20 A	SPARE	38	–
--	39	SPACE	–	1	–	–	–		–	--	–	–	–	1	–	SPACE	40	–
--	41	SPACE	–	1	–	–	–			– –	–	–	–	1	–	SPACE	42	–
					Total Load:			12,68 kVA		9,68 kVA			9,68 kVA					
					Total Amps:			105,67		80,67			80,67					

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Power	9 kVA	100,00%	9 kVA
Receptacles	23,04 kVA	71,70%	16,52 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	32,04 kVA
TOTAL ESTIMATED DEMAND LOAD:	25.52 kVA
TOTAL CONNECTED AMPS:	88,93 A
TOTAL ESTIMATED DEMAND AMPS:	70,8 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
2882 106TH STREET
DES MOINES, IA 50322
P: 515.334.9906 F: 515.334.9908

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

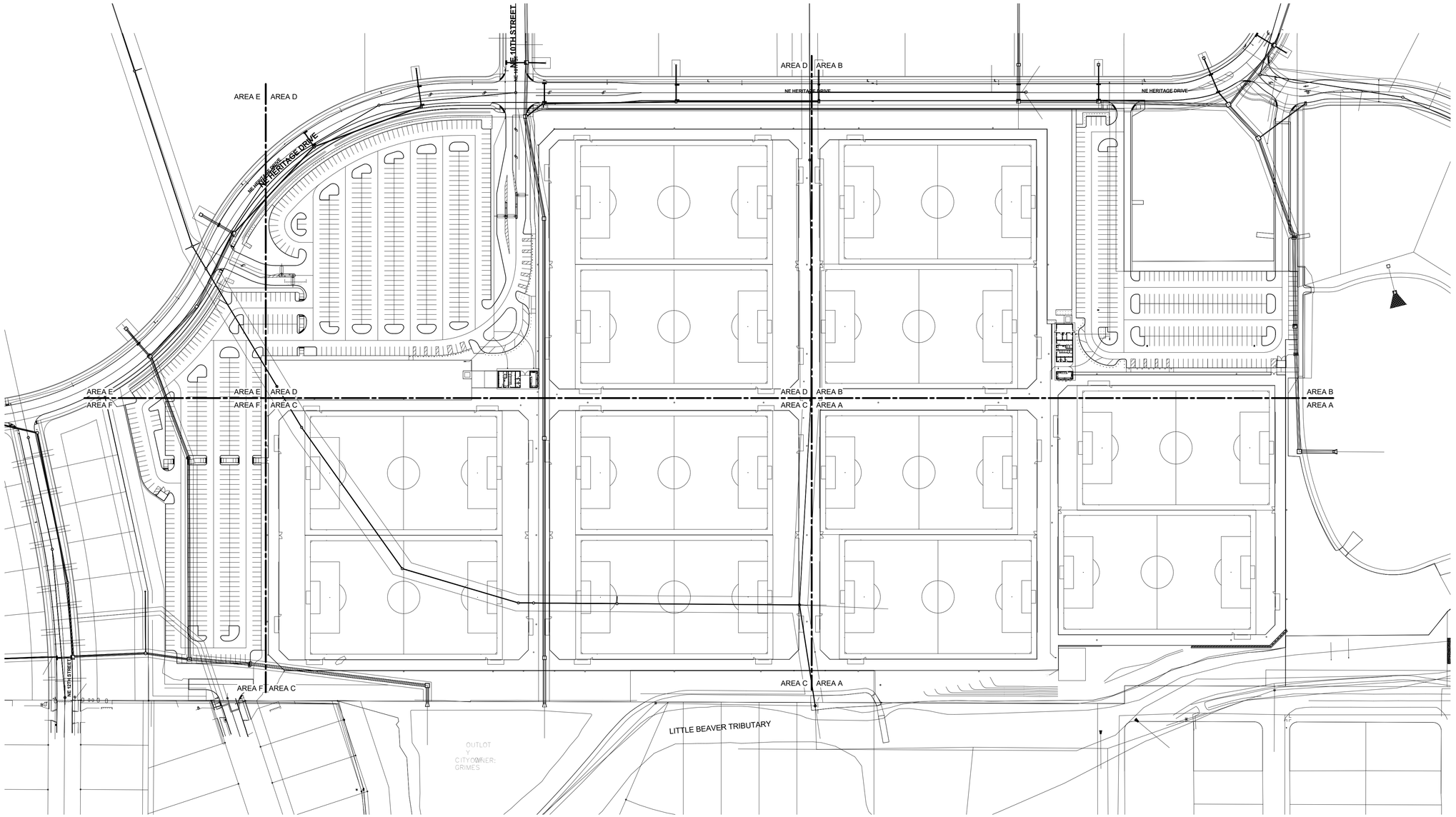
SHEET INFORMATION

Issue	**100% CONSTRUCTION DOCUMENTS**
Date	**10/10/2022**
Project #	**22006558.00**
Drawn	**KYHIL**
Checked	**KRISPI**
Approved	**KRISPI**

SHEET TITLE
ELECTRICAL SCHEDULES

SCALE
Scale:

SHEET NUMBER
E503



NORTH

1 **ELECTRICAL SITE PLAN OVERALL - AREAS**

1" = 100'-0"

PLACE LOGO HERE IF APPLICABLE

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
NUMBER AND ADDRESS
SUITE NO.
CITY, STATE ZIP CODE
P: 555.555.555 F: 555.555.5555

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

PRELIMINARY NOT FOR CONSTRUCTION

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3

REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	**CITY REVIEW - PHOTOMETRICS**
Date	**09/28/2022**
Project #	**22006558.00**
Drawn	**Author**
Checked	**Checker**
Approved	**Approver**

SHEET TITLE

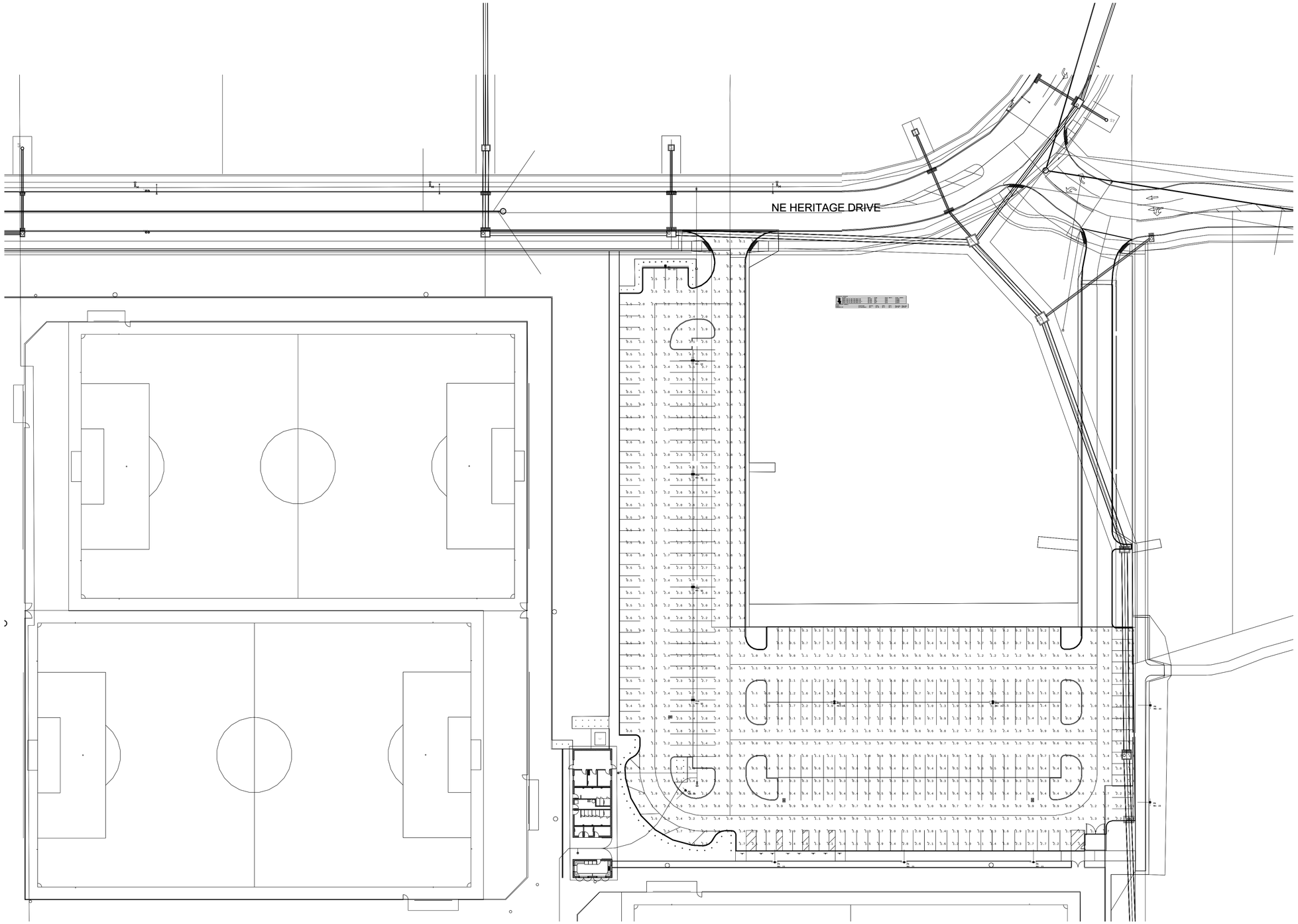
ELECTRICAL SITE PLAN OVERALL - AREAS

SCALE

Scale: **1" = 100'-0"**

SHEET NUMBER

E001



1 ELECTRICAL SITE PLAN - AREA B PHOTOMETRICS

1" = 40'-0"

NORTH

22006558.00 9/29/2022 11:16:53 AM Grimes- IA-Grimes Plex

PLACE LOGO HERE IF APPLICABLE

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
NUMBER AND ADDRESS
SUITE NO.
CITY, STATE ZIP CODE
P: 555.555.555 F: 555.555.5555

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

PRELIMINARY NOT FOR CONSTRUCTION

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	**CITY REVIEW - PHOTOMETRICS**
Date	**09/28/2022**
Project #	**22006558.00**
Drawn	**Author**
Checked	**Checker**
Approved	**Approver**

SHEET TITLE

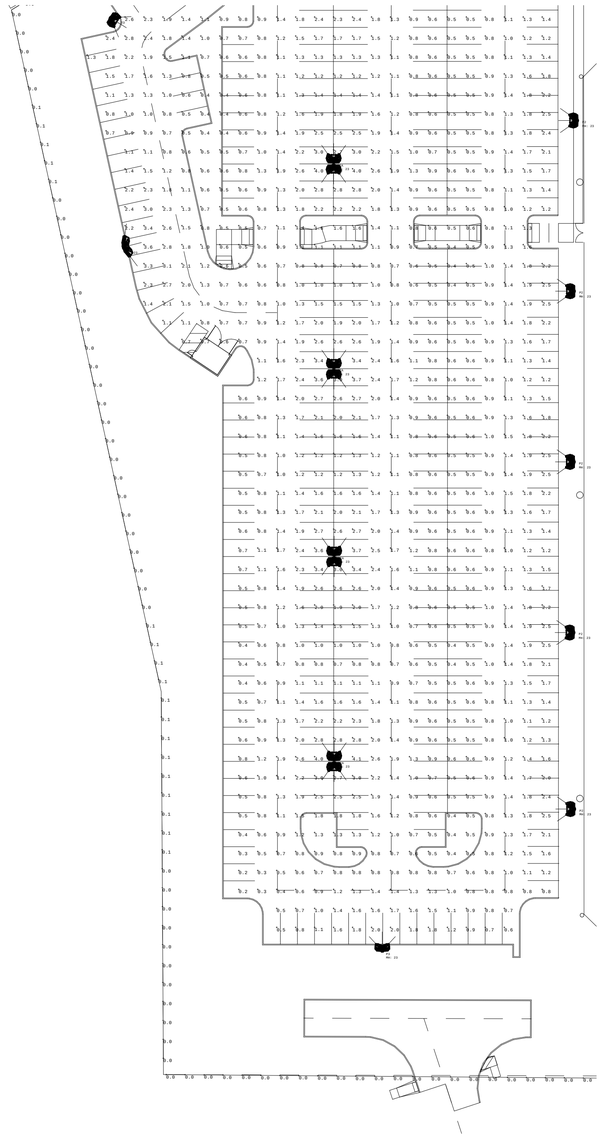
ELECTRICAL SITE PLAN - SOUTH PHOTOMETRICS

SCALE

Scale: **1" = 40'-0"**

SHEET NUMBER

LP001



NORTH

2 ELECTRICAL SITE PLAN - AREA F PHOTOMETRICS

1" = 40'-0"

PLACE LOGO HERE IF APPLICABLE

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
NUMBER AND ADDRESS
SUITE NO.
CITY, STATE ZIP CODE
P: 555.555.555 F: 555.555.5555

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

PRELIMINARY NOT FOR CONSTRUCTION

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.

<<<State Registration Number>>>

0 1 2 3

REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	**CITY REVIEW - PHOTOMETRICS**
Date	**09/28/2022**
Project #	**22006558.00**
Drawn	**Author**
Checked	**Checker**
Approved	**Approver**

SHEET TITLE

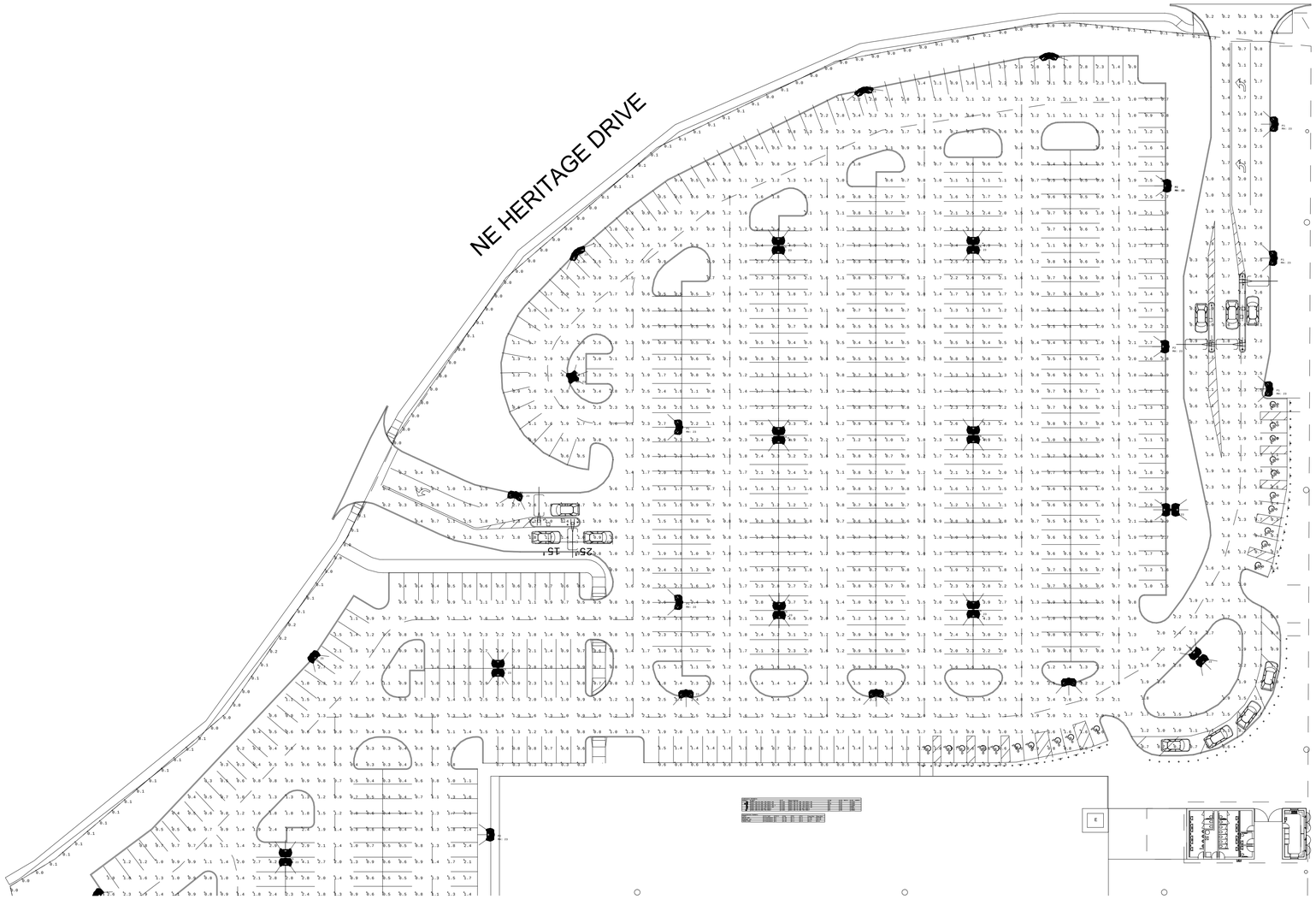
ELECTRICAL SITE PLAN - NORTH PHOTOMETRICS

SCALE

Scale: **1" = 40'-0"**

SHEET NUMBER

LP002



1 ELECTRICAL SITE PLAN - AREA D & E PHOTOMETRICS

1" = 40'-0"

NORTH

22006558.00 9/29/2022 11:16:54 AM Grimes- IA-Grimes Plex

PLACE LOGO HERE IF APPLICABLE

Grimes- IA-Grimes Plex

Project Address

City of Grimes

IMEG
The FUTURE. Built Smarter www.imegcorp.com
NUMBER AND ADDRESS
SUITE NO.
CITY, STATE ZIP CODE
P: 555.555.555 F: 555.555.5555

PROFESSIONAL SEAL

CONSULTANT
(MAY BE USED FOR ANY OTHER REQUIREMENT IF THERE IS NO CONSULTANT)

KEY PLAN

AGENCY APPROVAL

PRELIMINARY NOT FOR CONSTRUCTION

DISCLAIMER

IMEG CORP. RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF IMEG CORP. AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP. ©2022 IMEG CORP.
<<<State Registration Number>>>

0 1 2 3
REF. SCALE IN INCHES

REVISIONS

No.	Date	Revision / Issue

SHEET INFORMATION

Issue	CITY REVIEW - PHOTOMETRICS
Date	09/28/2022
Project #	22006558.00
Drawn	Author
Checked	Checker
Approved	Approver

SHEET TITLE

ELECTRICAL SITE PLAN - NORTH PHOTOMETRICS

SCALE

Scale: 1" = 40'-0"

SHEET NUMBER

LP003

General Regulations Amendment Discussion #4

Planning & Zoning Memo

TO: Planning and Zoning Commission

FROM: Evann Martin, Assistant Planner

DATE: November 1, 2022

RE: General Regulations Discussion #4

INTRODUCTION:

As you are aware, staff has been presenting a number of sections pertaining to general regulations within the Zoning Ordinance of the City of Grimes. Below is an outline of the proposed draft amendment for home occupations. Note that this is a complete re-write, therefore a redline copy has not been provided.

PROPOSED AMENDMENT:

Home Occupation: Home Occupation is an existing section within the ordinance and is intended to regulate the operation of businesses on residential properties. The State has recently passed new code regulations for home occupations.

As such, we have drafted regulations that are consistent with the State regulations, and with the vision of the City of Grimes. Below is a highlight of those regulations.

- Establishes general requirements for all home occupations
    - Must remain principally residential (51% of the floor area used for dwelling purposes)
    - No alteration to the building which changes the residential character of the residence
    - No outdoor storage of equipment/materials used in the business
    - Businesses shall not be apparent from the street
    - Business shall not produce noxious, offensive, hazardous noise, odor, vibration, smoke, glare, etc. or be a hazard to vehicular traffic.
- Distinguishes two types of home occupations: Level 1 (no-impact) and Level 2 (minor impact)
- Level 1 (no-impact)
    - Business conducted solely within the dwelling or in an approved accessory building. No storage connected with the home occupation allowed outdoors.

    - No non-occupant employees conducting work on the premises.
    - No face-to-face customer or client interaction at the property.
    - No signage or window displays.
- Level 2 (minor impact)
    - The home occupation shall be conducted within the dwelling, approved accessory building or structure. No storage of goods, materials, equipment, trailers or products connected with the home occupation shall be allowed outdoors.
    - No more than one non-occupant employee conducting work on the premises.
    - Customer or client interaction occurring within the dwelling shall be limited to not more than 4 customers/clients per hour, between 8 A.M. and 8 P.M., Monday through Sunday.
    - Customer or client interaction occurring outside of the dwelling limited to no more than 4 customers/clients per hour, between 8 A.M. and 5 P.M., Monday through Friday.
    - Employee parking is provided on site.
- Any proposed business not following the regulations for Level 1 or 2 would be required to seek BOA approval.

CITY OF GRIMES

Evann Martin
Assistant Planner