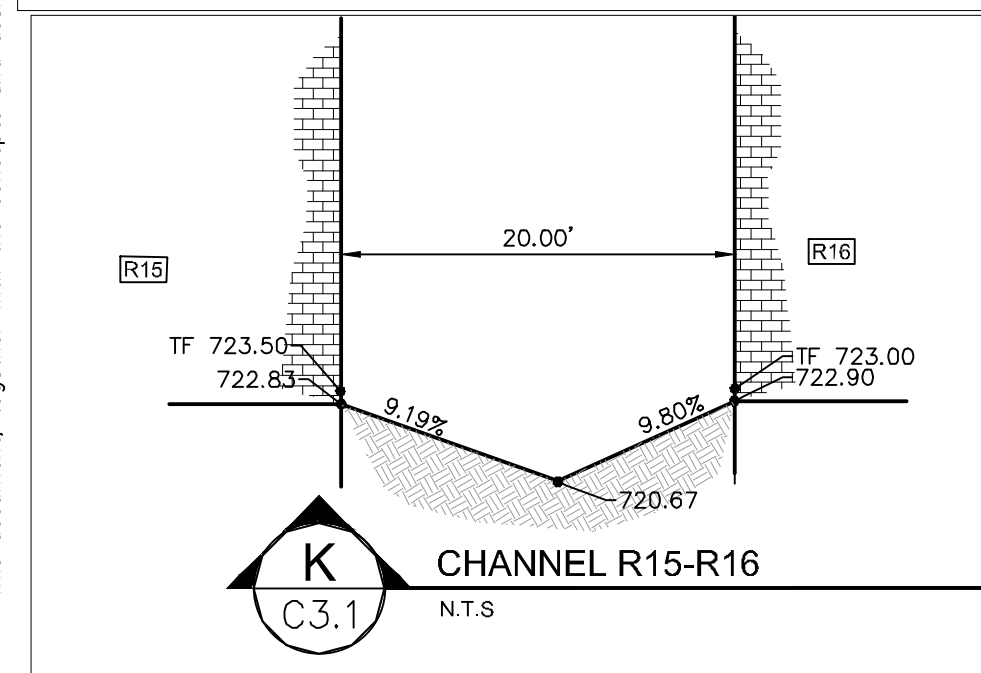
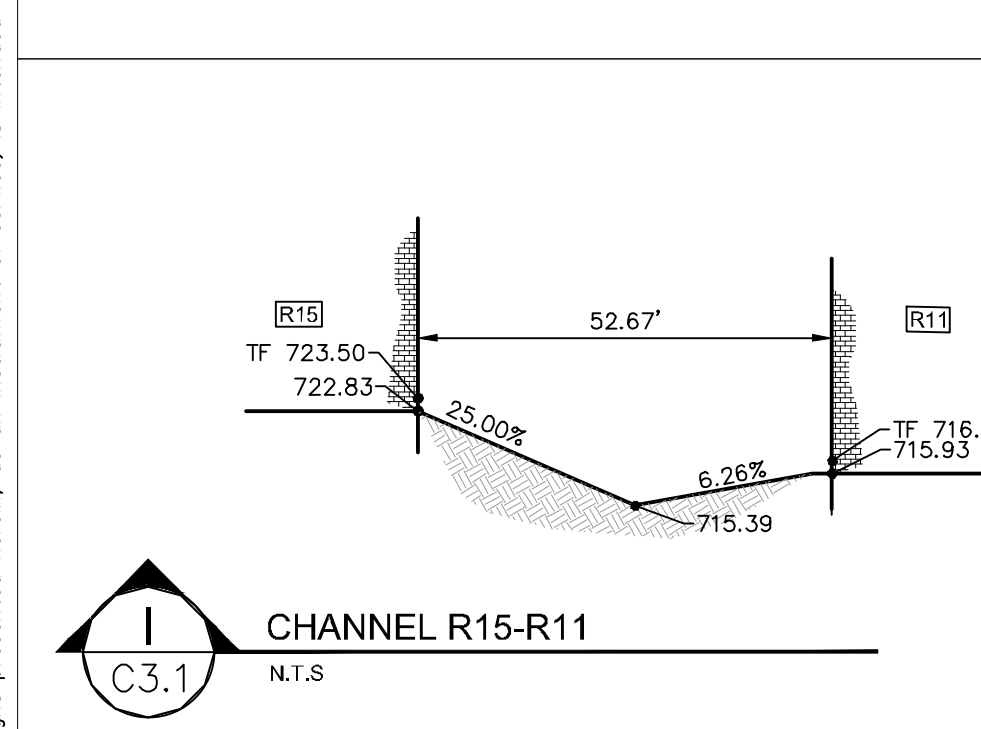
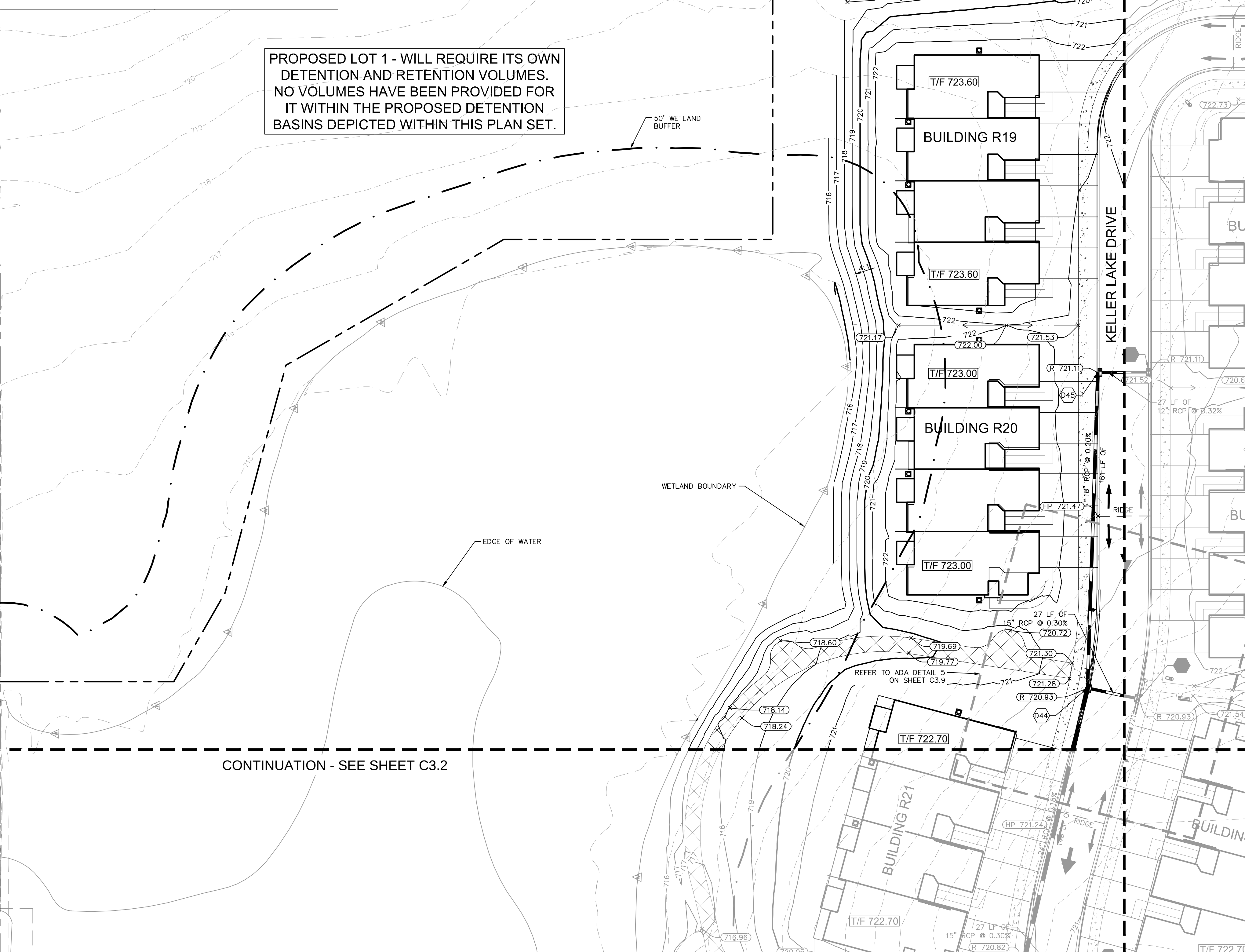
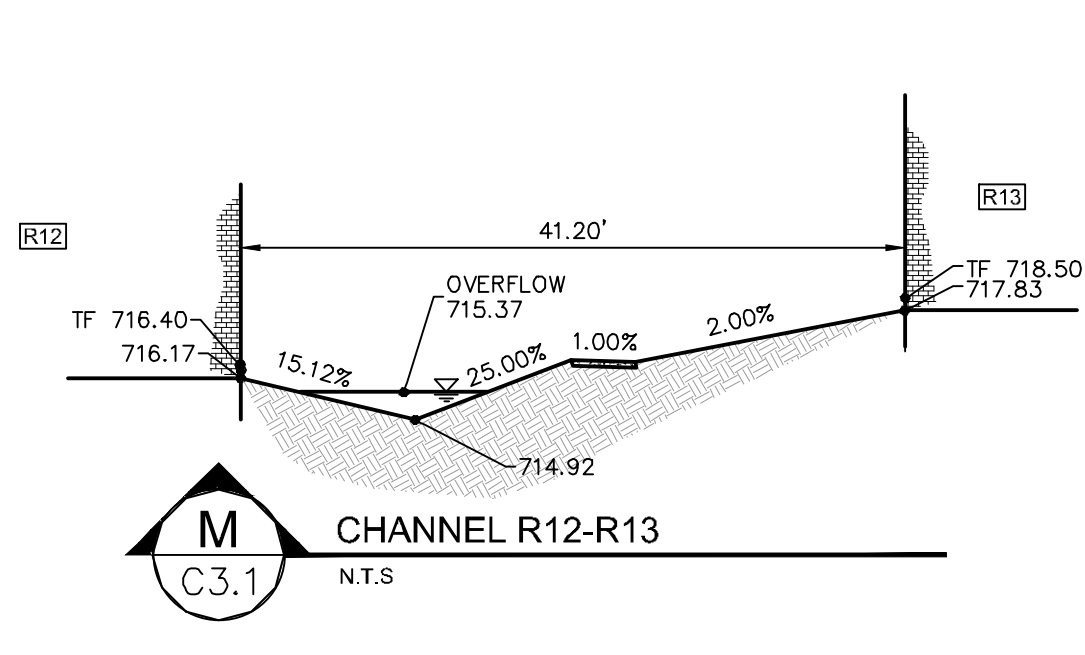
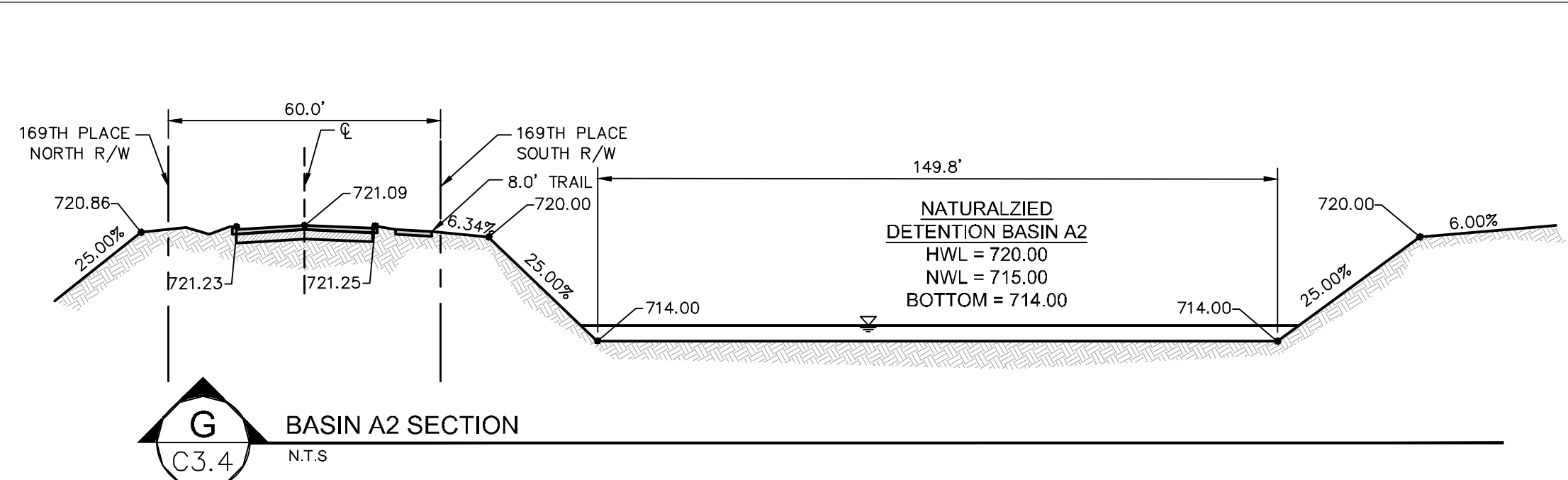
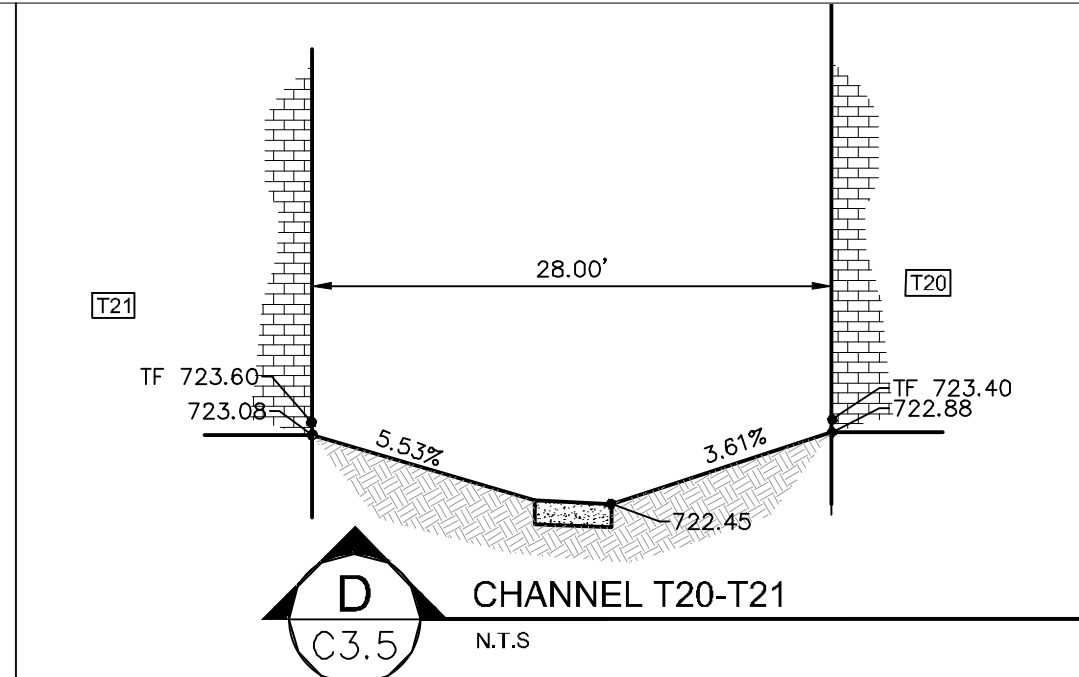
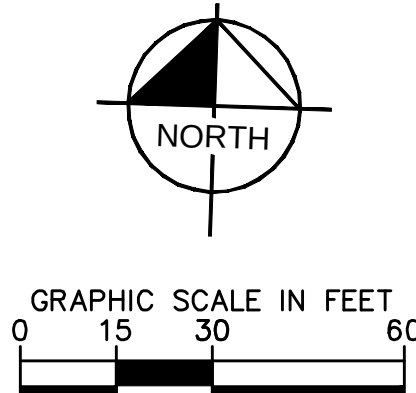




PROPOSED LOT 1 - WILL REQUIRE ITS OWN
DETENTION AND RETENTION VOLUMES.
NO VOLUMES HAVE BEEN PROVIDED FOR
IT WITHIN THE PROPOSED DETENTION
BASINS DEPICTED WITHIN THIS PLAN SET.

CONTINUATION - SEE SHEET C3.1



**Call
Before
You Dig**
JULIE
1-800-892-0123

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6. MATCH EXISTING ELEVATIONS AT THE PROPERTY LIMITS.
7. ALL ONSITE CONCRETE SIDEWALK IS DESIGNED AT 1% CROSS SLOPE UNLESS OTHERWISE NOTED.

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TF = TOP OF FOUNDATION
R = RIM ELEVATION
FG = FINISHED GRADE
TS = TOP OF STAIRS
BS = BOTTOM OF STAIRS

—XXX— PROPOSED CONTOUR
---XXX--- EXISTING CONTOUR

RIDGE
X X X X
X X X X
SLOPE AND FLOW DIRECTION

100'-YEAR OVERFLOW ROUTE
100'-YEAR OVERFLOW ROUTE
100'-YEAR EMERGENCY
OVERFLOW ROUTE

—...← PROPOSED SWALE

—V V V V V— PROPOSED RETAINING WALL

—AR— REVERSED PITCH CURB AND GUTTER

ACCESSIBLE ROUTE

RIP RAP (SEE DETAILS)

PROPOSED OPEN LID STORM STRUCTURE
(PAVEMENT USE NEENAH R-2540)
(GRASS USE NEENAH R-4340-B BEEHIVE)

PROPOSED CLOSED LID STORM STRUCTURE
(PAVEMENT USE NEENAH R-1772)
(GRASS USE NEENAH R-1786)

PROPOSED COMBINATION CURB INLET
(B6-12 C&G USE NEENAH R-3281-A)
(FOR MOUNTABLE CURB USE NEENAH
R-2540 REFER TO DETAILS)

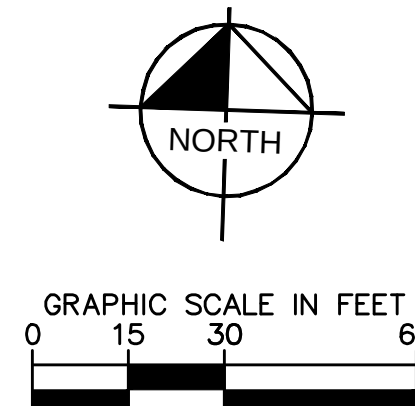
PROPOSED STORM SEWER LINE

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D44	4' DIA. MH – OPEN LID RIM: 720.93 INV IN: 716.62 (N) INV IN: 716.87 (E) INV OUT: 716.12 (S)
D45	4' DIA. MH – OPEN LID RIM: 721.11 INV IN: 717.44 (E) INV OUT: 716.94 (S)

[illegible]

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PROPOSED CONTOUR
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RIDGE LINE
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(PAVEMENT USE NEENAH R-1772)
(GRASS USE NEENAH R-1796)
PROPOSED COMBINATION CURB INLET
(RIP RAP USE NEENAH R-3281-A)
(FOR MOUNTABLE CURB USE NEENAH
R-2540 REFER TO DETAILS)
PROPOSED STORM SEWER LINE

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D24	4' DIA. MH — CLOSED LID RIM: 714.92 INV IN: 707.13 (S) INV OUT: 707.13 (N)
D25	4' DIA. MH — OPEN LID RIM: 713.77 INV IN: 707.30 (S) INV OUT: 707.30 (N)
D46	2' INLET RIM: 721.11 INV OUT: 717.53 (W)
D49	2' INLET RIM: 720.93 INV OUT: 716.95 (W)
XD1	CONNECT TO EX. MANHOLE WITH CORE AND BOOT CONNECTION RIM: 707.58 INV IN: 706.35 (W)

S.R. JACOBSON
DEVELOPMENT CORPORATION

GRADING AND DRAINAGE PLAN

ORLAND RIDGE
GRANGE ROAD & 171ST STREET
ORLAND PARK, IL 60487

ORIGINAL ISSUE:
07/17/2019
CHA PROJECT NO
168626000
SHEET NUMBER

C3.1

Drawing name: K:\GIS\DEV\168626000_SR Jacobson, Grand Park, IL\2 Design\CAD\PlanSheets\Final Engineering\C3.0 GRADING AND DRAINAGE PLAN.dwg C3.3 Feb 13, 2020 3:00pm by: TaylorSeaborn
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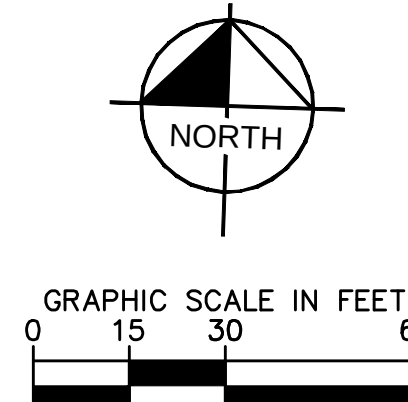
CONTINUATION - SEE SHEET C3.2

CONTINUATION - SEE SHEET C3.1

CONTINUATION - SEE SHEET C3.5

GRADING NOTES

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GRADING LEGEND

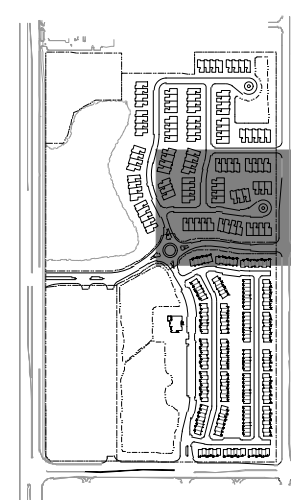
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PROPOSED STORM SEWER LINE

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D21	24" NYLOPLAST DRAIN RIM: 718.05 INV OUT: 713.75 (N)
D26	4" DIA. MH - OPEN LID RIM: 713.77 INV IN: 707.56 (W) INV OUT: 707.95 (SE) INV OUT: 707.56 (N)
D27	4" DIA. MH - CLOSED LID RIM: 714.65 INV IN: 708.68 (S) INV OUT: 708.18 (NW)
D28	24" NYLOPLAST DRAIN RIM: 713.50 INV OUT: 709.34 (N)
D29	4" DIA. MH - OPEN LID RIM: 711.48 (W) INV IN: 710.29 (SE) INV OUT: 707.85 (E)
D30	2" INLET RIM: 716.40 INV OUT: 712.29 (E)
D31	12" NYLOPLAST DRAIN RIM: 714.71 INV OUT: 710.59 (NW)
D39	4" DIA. MH - OPEN LID RIM: 722.23 INV IN: 714.21 (N) INV OUT: 714.21 (S)
D40	4" DIA. MH - OPEN LID RIM: 721.45 INV IN: 714.30 (N) INV OUT: 714.30 (S)
D41	5" DIA. MH - OPEN LID RIM: 720.58 INV IN: 714.87 (NE) INV IN: 714.87 (NW) INV OUT: 714.37 (S)
D50	4" DIA. MH - OPEN LID RIM: 720.58 INV IN: 714.91 (NE) INV OUT: 714.91 (SW)
D51	4" DIA. MH - OPEN LID RIM: 720.22 INV IN: 715.48 (E) INV IN: 715.48 (N) INV OUT: 714.98 (SW)
D52	4" DIA. MH - CLOSED LID RIM: 720.89 INV IN: 715.71 (E) INV IN: 716.21 (N) INV OUT: 715.71 (W)
D53	4" DIA. MH - OPEN LID RIM: 720.26 INV IN: 716.39 (N) INV IN: 716.39 (E) INV OUT: 715.89 (W)
D54	4" DIA. MH - OPEN LID RIM: 721.05 INV IN: 716.90 (S) INV OUT: 716.65 (W)
D55	2" INLET RIM: 721.13 INV OUT: 716.99 (N)

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D56	4" DIA. MH - OPEN LID RIM: 720.22 INV IN: 716.52 (NE) INV OUT: 715.52 (S)
D57	12" NYLOPLAST DRAIN RIM: 719.46 INV OUT: 716.69 (SW)
D58	2" INLET RIM: 720.58 INV OUT: 716.30 (S)
D59	2" INLET RIM: 720.26 INV OUT: 716.44 (S)
D64	2" INLET RIM: 721.64 INV OUT: 717.47 (S)
D65	4" DIA. MH - OPEN LID RIM: 720.96 INV IN: 715.97 (N) INV OUT: 715.97 (S)
D66	12" NYLOPLAST DRAIN RIM: 719.77 INV IN: 716.51 (E) INV OUT: 716.01 (S)
D67	12" NYLOPLAST DRAIN RIM: 715.54 INV OUT: 716.77 (W)
D69	4" DIA. MH - OPEN LID RIM: 721.37 INV IN: 716.51 (N) INV OUT: 716.51 (S)
D70	12" NYLOPLAST DRAIN RIM: 720.00 INV IN: 716.58 (E) INV OUT: 716.58 (S)
D71	12" NYLOPLAST DRAIN RIM: 719.50 INV OUT: 716.84 (W)

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KEY MAP



Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
1001 WARREN ROAD, SUITE 350
Lisle, IL 60532
TEL: 630.337.5550
WWW.KIMLEY-HORN.COM

SR.JACOBSON
SENIOR PROJECT MANAGER

GRADING AND DRAINAGE PLAN

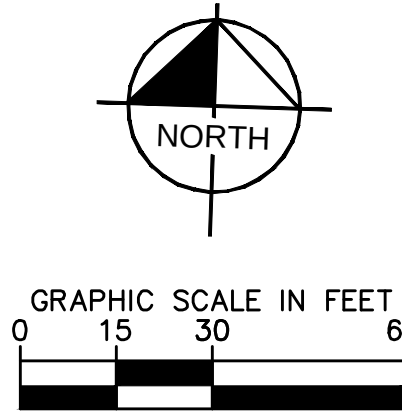
ORLAND RIDGE
LAGRANGE ROAD & 171ST STREET
ORLAND PARK, IL 60487

ORIGINAL ISSUE:
07/17/2019
KHA PROJECT NO.
168626000
SHEET NUMBER

C3.3

CONTINUATION - SEE SHEET C3.2

CONTINUATION - SEE SHEET C3.6

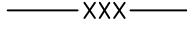
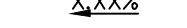
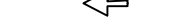


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GRADING LEGEND

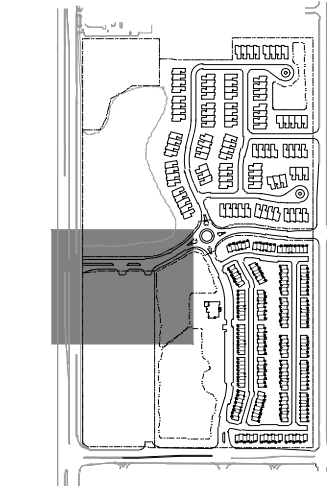
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	PROPOSED STORM SEWER LINE

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D75	4' DIA. MH - OPEN LID RIM: 720.58 INV IN: 715.83 (NW) INV OUT: 715.83 (SE)
D76	2' INLET RIM: 720.55 INV OUT: 716.46 (SE)
D78	4' DIA. MH - OPEN LID RIM: 720.47 INV IN: 716.12 (NW) INV OUT: 715.63 (SE)
D79	2' INLET RIM: 720.33 INV OUT: 716.25 (SE)
D112	4' DIA. MH - CLOSED LID RIM: 721.00 INV IN: 715.00 (S) INV OUT: 715.00 (N)
D113	4' DIA. MH - CLOSED LID RIM: 724.52 INV IN: 715.00 (S) INV OUT: 715.00 (N)

FES TABLE	
STRUCTURE NAME:	DETAILS:
D34	18" FES INV IN: 714.90 (SE)
D36	18" FES INV OUT: 715.00 (NW)
D74	12" FES INV IN: 715.00 (NW)
D77	18" FES INV IN: 715.21 (NW)
D111	18" FES INV IN: 715.00 (S)
D164	12" FES INV IN: 716.00 (E)

KEY MAP



Kimley»»Horn

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DEVELOPMENT CORPORATION

GRADING AND DRAINAGE PLAN

ORLAND RIDGE
GRANGE ROAD & 171ST STREET
ORLAND PARK, IL 60487

ORIGINAL ISSUE: 07/17/2018

KHA PROJECT NO
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SHEET NUMBER

C3.4

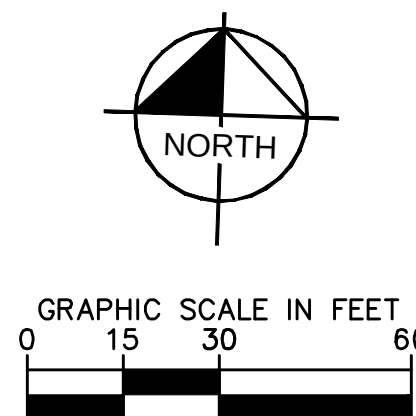
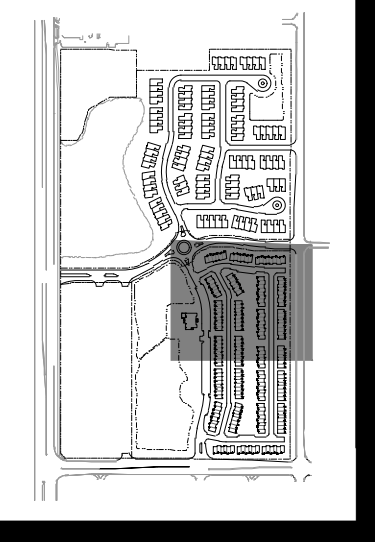
CONTINUATION - SEE SHEET C3.4

CONTINUATION - SEE SHEET C3.7



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KEY MAP



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STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
D38	5' DIA. MH - OPEN LID RIM: 721.10 INV IN: 715.06 (NE) INV IN: 714.06 (N) INV OUT: 714.06 (SW)
D60	4' DIA. MH - OPEN LID RIM: 721.10 INV IN: 715.18 (NE) INV OUT: 715.18 (SW)
D61	4' DIA. MH - OPEN LID RIM: 720.91 INV IN: 715.40 (E) INV IN: 715.90 (N) INV IN: 716.15 (S) INV OUT: 715.40 (SW)
D62	4' DIA. MH - OPEN LID RIM: 721.37 INV IN: 716.42 (E) INV IN: 716.42 (N) INV IN: 716.42 (S) INV OUT: 715.67 (W)
D63	4' DIA. MH - OPEN LID RIM: 721.64 INV IN: 717.34 (N) INV IN: 717.34 (SE) INV OUT: 717.09 (W)
D68	2' INLET RIM: 722.34 INV IN: 717.02 (N)
D72	2' INLET RIM: 721.71 INV OUT: 717.01 (N)
D73	2' INLET RIM: 721.84 INV OUT: 717.81 (NW)
D81	4' DIA. MH - OPEN LID RIM: 722.07 INV IN: 718.35 (S) INV IN: 715.05 (NE) INV OUT: 715.05 (SW)
D82	4' DIA. MH - CLOSED LID RIM: 723.42 INV IN: 716.20 (E) INV IN: 716.20 (S) INV OUT: 715.20 (SW)
D83	4' DIA. MH - OPEN LID RIM: 722.90 INV IN: 716.30 (E) INV IN: 717.30 (N) INV OUT: 716.30 (W)
D84	4' DIA. MH - CLOSED LID RIM: 723.39 INV IN: 716.41 (E) INV IN: 717.41 (S) INV OUT: 716.41 (W)
D85	4' DIA. MH - OPEN LID RIM: 723.29 INV IN: 717.16 (SE) INV IN: 717.41 (E) INV IN: 717.66 (N) INV OUT: 716.66 (W)
D86	4' DIA. MH - OPEN LID RIM: 723.37 INV IN: 717.20 (S) INV IN: 717.70 (E) INV OUT: 717.20 (NW)
D87	4' DIA. MH - OPEN LID RIM: 722.72 INV IN: 717.79 (S) INV IN: 718.04 (E) INV OUT: 717.54 (N)

STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
D88	4' DIA. MH - OPEN LID RIM: 722.14 INV IN: 718.56 (E) INV OUT: 718.31 (N)
D89	4' DIA. MH - OPEN LID RIM: 722.14 INV IN: 718.64 (E) INV OUT: 718.64 (W)
D90	2' INLET RIM: 722.13 INV OUT: 718.90 (W)
D91	2' INLET RIM: 722.90 INV OUT: 718.14 (S)
D92	2' INLET RIM: 723.29 INV OUT: 718.50 (S)
D93	4' DIA. MH - OPEN LID RIM: 721.45 INV IN: 717.78 (S) INV OUT: 717.78 (W)
D94	12" NYLOPLAST DRAIN RIM: 723.92 INV IN: 718.15 (S) INV OUT: 717.90 (N)
D95	12" NYLOPLAST DRAIN RIM: 723.25 INV IN: 718.35 (S) INV OUT: 718.35 (N)
D96	12" NYLOPLAST DRAIN RIM: 722.22 INV IN: 718.61 (S) INV OUT: 718.61 (N)
D97	12" NYLOPLAST DRAIN RIM: 721.79 INV OUT: 718.98 (N)
D98	2' INLET RIM: 723.37 INV OUT: 718.54 (W)
D99	2' INLET RIM: 722.72 INV OUT: 718.64 (W)
D100	12" NYLOPLAST DRAIN RIM: 722.50 INV OUT: 718.35 (N)
D101	4' DIA. MH - OPEN LID RIM: 721.80 INV IN: 716.49 (S) INV IN: 717.00 (E) INV IN: 717.50 (W) INV OUT: 716.49 (N)
D102	4' DIA. MH - OPEN LID RIM: 721.24 INV IN: 717.30 (E) INV IN: 717.30 (W) INV OUT: 716.80 (N)

STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
D103	4' DIA. MH - OPEN LID RIM: 721.48 INV IN: 717.74 (W) INV OUT: 717.49 (E)
D104	2' INLET RIM: 721.48 INV IN: 717.82 (E)
D105	12" NYLOPLAST DRAIN RIM: 722.05 INV OUT: 718.44 (E)
D106	4' DIA. MH - OPEN LID RIM: 721.80 INV IN: 717.62 (E) INV OUT: 717.12 (W)
D107	4' DIA. MH - OPEN LID RIM: 721.44 INV IN: 718.05 (S) INV OUT: 718.05 (W)
D108	12" NYLOPLAST DRAIN RIM: 721.45 INV IN: 718.47 (S) INV OUT: 718.47 (N)
D109	12" NYLOPLAST DRAIN RIM: 721.45 INV OUT: 718.83 (N)
D110	2' INLET RIM: 721.24 INV OUT: 717.35 (W)
D147	12" NYLOPLAST DRAIN RIM: 720.79 INV OUT: 718.87 (S)
D165	12" NYLOPLAST DRAIN RIM: 722.77 INV IN: 718.51 (NE) INV OUT: 718.50 (W)
D166	12" NYLOPLAST DRAIN RIM: 722.52 INV IN: 719.12 (E) INV OUT: 719.12 (SW)
D167	12" NYLOPLAST DRAIN RIM: 722.70 INV IN: 719.32 (E) INV OUT: 719.32 (W)
D168	12" NYLOPLAST DRAIN RIM: 722.85 INV OUT: 719.80 (W)

FES TABLE

STRUCTURE NAME:	DETAILS:
D37	36" FES INV IN: 714.00 (NE)
D80	36" FES INV IN: 715.00 (NE)

GRADING LEGEND

- FL = FLOW LINE
TC = TOP OF CURB
ME = MATCH ELEVATION
TF = TOP OF FOUNDATION
R = RIM ELEVATION
FG = FINISHED GRADE
TS = TOP OF STAIRS
BS = BOTTOM OF STAIRS
- PROPOSED CONTOUR
EXISTING CONTOUR
RIDGE LINE
SLOPE AND FLOW DIRECTION
100-YEAR OVERLAND OVERFLOW ROUTE
DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
PROPOSED SWALE
PROPOSED RETAINING WALL
REVERSED PITCH CURB AND GUTTER
ACCESSIBLE ROUTE
RIP RAP (SEE DETAILS)
- PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R-2540) (GRASS USE NEENAH R-4340-B BEEHIVE)
PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R-1772) (GRASS USE NEENAH R-1786)
PROPOSED COMBINATION CURB INLET (B6.12 C&G USE NEENAH R-3281-A) (FOR MOUNTABLE CURB USE NEENAH R-2540 REFER TO DETAILS)
PROPOSED STORM SEWER LINE

Kimley»Horn

SCALE: AS NOTED
DESIGNED BY: JDC
DRAWN BY: JDC
CHECKED BY: WAW

SR.JACOBSON

GRADING AND DRAINAGE PLAN

ORLAND RIDGE
LAGRANGE ROAD & 171ST STREET
ORLAND PARK, IL 60487

ORIGINAL ISSUE:
07/17/2019
KHA PROJECT NO.
168626000

SHEET NUMBER

C3.5

Drawing name: K:\GIS_DEVELOPMENT\16862600_SR Jacobson_Grand Park, IL\2 Design\CAD\PlanSheets\Final Engineering\C3.6 GRADING AND DRAINAGE PLAN.dwg C3.6 Feb 13, 2020 3:00pm by: TaylorSeibach

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NATURALIZED
DETENTION BASIN A1
HWL = 721.00
NWL = 715.00
BOTTOM = 714.00

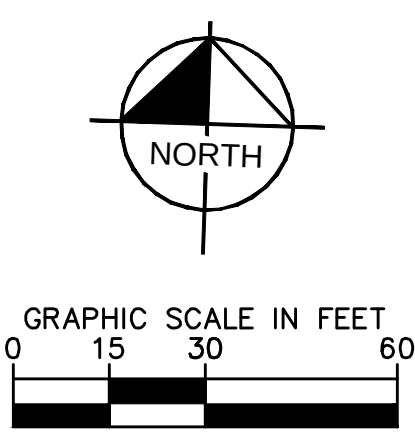
LAGRANGE ROAD (US 45)

FUTURE PHASE

171ST STREET

CONTINUATION - SEE SHEET C3.4

CONTINUATION - SEE SHEET C3.7



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GRADING NOTES

1. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO FLOW LINE ELEVATIONS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. GENERAL CONTRACTOR TO COORDINATE WITH EXCAVATION, LANDSCAPE AND PAVING SUBCONTRACTORS REGARDING TOPSOIL THICKNESS FOR LANDSCAPE AREAS AND PAVEMENT SECTION THICKNESS FOR PAVED AREAS TO PROPERLY ENSURE ADEQUATE CUT TO ESTABLISH SUBGRADE ELEVATIONS.
3. NO EARTHEN SLOPE SHALL BE GREATER THAN 4:1, UNLESS OTHERWISE NOTED.
4. MAXIMUM SLOPE IN ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS.
5. MAXIMUM RUNNING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2% ON ALL SIDEWALKS AND ACCESSIBLE ROUTES.
6. MATCH EXISTING ELEVATIONS AT THE PROPERTY LIMITS.
7. ALL ONSITE CONCRETE SIDEWALK IS DESIGNED AT 1% CROSS SLOPE UNLESS OTHERWISE NOTED.

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FG = FINISHED GRADE
TS = TOP OF STAIRS
BS = BOTTOM OF STAIRS
- XXX = PROPOSED CONTOUR
-XXX- = EXISTING CONTOUR
RIDGE = RIDGE LINE
X XXX = SLOPE AND FLOW DIRECTION
100-YEAR OVERLAND OVERFLOW ROUTE
100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
PROPOSED SWALE
PROPOSED RETAINING WALL
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PROPOSED STORM SEWER LINE

STORM STRUCTURE TABLE

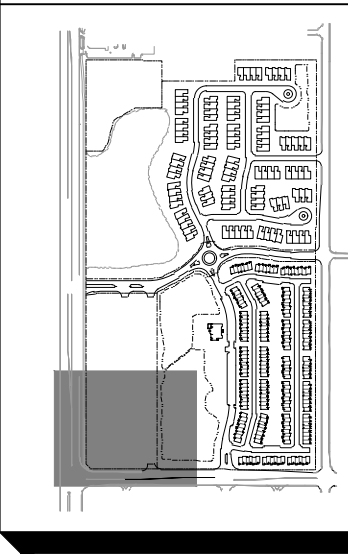
STRUCTURE NAME:	DETAILS:
D114	4' DIA. MH - CLOSED LID RIM: 723.57 INV IN: 715.00 (SE) INV OUT: 715.00 (N)

FES TABLE

STRUCTURE NAME:	DETAILS:
D115	18" FES INV OUT: 715.00 (NW)

THE DETENTION POND VOLUMES PROVIDED WERE DETERMINED UPON THE USE OF THE VILLAGE OF ORLAND PARK LID RELEASE RATES. POND RESTRICTORS HAVE BEEN OVERSIZED TO MAINTAIN HYDROLOGY OF DOWNSTREAM JURISDICTIONAL WETLAND. NO EXCESS VOLUME HAS BEEN PROVIDED WITHIN PONDS FOR USE BEYOND THE LIMITS OF THIS DEVELOPMENT. NO CHANGE TO OUTLET RESTRICTORS IS ALLOWED WITHOUT PRIOR APPROVAL OF THE VILLAGE.

KEY MAP



WAW	02/14/20	REVISOR	NO.	DATE	BY
SKA	02/06/20	ADDENDUM 1 - LANDSCAPE			
WAW	02/05/20	REVISED PER IDOT COMMENTS			
WAW	01/09/20	LANDSCAPE REV PER VILLAGE COMMENTS			
WAW	12/20/19	LANDSCAPE REV PER VILLAGE/MWRD/CDDOT COM.			
WAW	11/21/19	REVISED PER CDDOT COMMENTS			
WAW	10/15/19	REVISED PER VILLAGE/MWRD COMMENTS			
WAW	10/15/19	REVISED PER VILLAGE/MWRD COMMENTS			

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1001 WARENVILLE ROAD, SUITE 350,
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TEL: 630.332.4550
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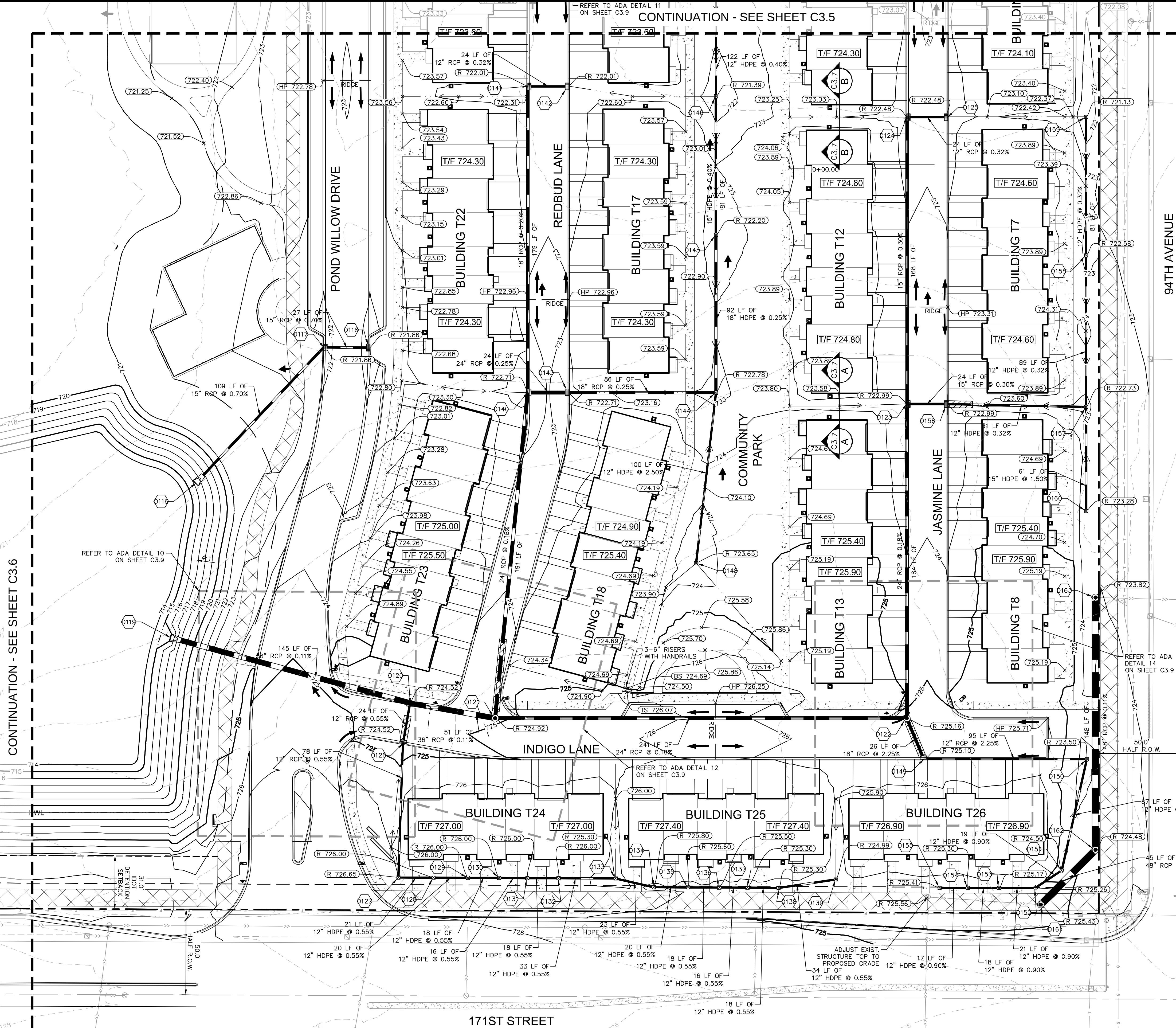
SR.JACOBSON
CONSULTING ENGINEERS

ORLAND RIDGE
LAGRANGE ROAD & 171ST STREET
ORLAND PARK, IL 60487

ORIGINAL ISSUE:
07/17/2019
KHA PROJECT NO.
168626000
SHEET NUMBER
C3.6

Drawing name: K:\GIS_DEVELOPMENT\168626000_SR_Jacobson_Grand Park_IL_V2 Design\CAD\PlanSheets\Final Engineering\C3.0 GRADING AND DRAINAGE PLAN.dwg C3.7 Feb 13, 2020 3:00pm by: TaylorSeaborn
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CONTINUATION - SEE SHEET C3.6

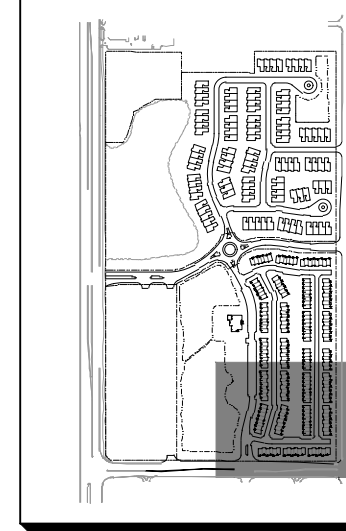


STORM STRUCTURE TABLE		STORM STRUCTURE TABLE		STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:	STRUCTURE NAME:	DETAILS:	STRUCTURE NAME:	DETAILS:
D117	4" DIA. MH - OPEN LID RIM: 721.86 INV IN: 717.02 (E) INV OUT: 717.02 (SW)	D133	6" NYLOPLAST DRAIN RIM: 725.30 INV IN: 721.28 (E) INV OUT: 721.28 (W)	D149	4" DIA. MH - OPEN LID RIM: 725.10 INV IN: 718.23 (E) INV OUT: 717.73 (NW)
D118	2" INLET RIM: 721.86 INV OUT: 717.21 (W)	D134	6" NYLOPLAST DRAIN RIM: 725.80 INV IN: 721.41 (E) INV OUT: 721.41 (W)	D150	12" NYLOPLAST DRAIN RIM: 723.50 INV IN: 720.38 (S) INV OUT: 720.38 (S)
D120	5" DIA. MH - OPEN LID RIM: 724.52 INV IN: 720.02 (S) INV IN: 715.15 (E) INV OUT: 715.15 (W)	D135	6" NYLOPLAST DRAIN RIM: 725.60 INV IN: 721.52 (E) INV OUT: 721.52 (W)	D151	6" NYLOPLAST DRAIN RIM: 724.50 INV IN: 720.98 (SW) INV OUT: 720.98 (N)
D121	5" DIA. MH - CLOSED LID RIM: 724.92 INV IN: 716.21 (N) INV IN: 716.21 (E) INV OUT: 715.21 (W)	D136	6" NYLOPLAST DRAIN RIM: 725.50 INV IN: 721.62 (E) INV OUT: 721.62 (W)	D152	6" NYLOPLAST DRAIN RIM: 725.28 INV IN: 721.14 (W) INV OUT: 721.14 (NE)
D122	4" DIA. MH - CLOSED LID RIM: 725.16 INV IN: 716.64 (N) INV IN: 717.14 (SE) INV OUT: 716.64 (W)	D137	6" NYLOPLAST DRAIN RIM: 725.30 INV IN: 721.71 (E) INV OUT: 721.71 (W)	D153	6" NYLOPLAST DRAIN RIM: 725.17 INV IN: 721.33 (W) INV OUT: 721.33 (E)
D123	4" DIA. MH - OPEN LID RIM: 722.99 INV IN: 717.72 (N) INV OUT: 716.97 (S)	D138	6" NYLOPLAST DRAIN RIM: 725.30 INV IN: 721.81 (E) INV OUT: 721.81 (W)	D154	6" NYLOPLAST DRAIN RIM: 725.30 INV IN: 721.50 (E) INV OUT: 721.50 (E)
D124	4" DIA. MH - OPEN LID RIM: 722.48 INV IN: 718.48 (E) INV OUT: 718.23 (S)	D139	6" NYLOPLAST DRAIN RIM: 724.99 INV OUT: 722.00 (W)	D155	6" NYLOPLAST DRAIN RIM: 725.41 INV OUT: 721.65 (E)
D125	2" INLET RIM: 722.48 INV OUT: 718.55 (W)	D140	4" DIA. MH - OPEN LID RIM: 722.71 INV IN: 717.05 (N) INV IN: 715.55 (E) INV OUT: 716.55 (S)	D156	4" DIA. MH - OPEN LID RIM: 722.99 INV IN: 718.05 (E) INV OUT: 717.80 (W)
D126	4" DIA. MH - OPEN LID RIM: 724.52 INV IN: 720.15 (S) INV OUT: 720.15 (N)	D141	4" DIA. MH - OPEN LID RIM: 721.31 INV IN: 717.91 (E) INV OUT: 717.41 (S)	D157	12" NYLOPLAST DRAIN RIM: 722.73 INV IN: 718.30 (N) INV IN: 718.05 (S) INV OUT: 718.30 (W)
D127	12" NYLOPLAST DRAIN RIM: 726.65 INV IN: 720.58 (E) INV OUT: 720.58 (N)	D142	2" INLET RIM: 722.01 INV OUT: 717.99 (W)	D158	12" NYLOPLAST DRAIN RIM: 722.58 INV IN: 718.59 (N) INV OUT: 718.59 (S)
D128	6" NYLOPLAST DRAIN RIM: 726.00 INV IN: 720.70 (E) INV OUT: 720.70 (W)	D143	4" DIA. MH - OPEN LID RIM: 722.71 INV IN: 717.11 (E) INV OUT: 716.61 (W)	D159	12" NYLOPLAST DRAIN RIM: 721.13 INV OUT: 718.85 (S)
D129	6" NYLOPLAST DRAIN RIM: 726.00 INV IN: 720.81 (E) INV OUT: 720.81 (W)	D144	12" NYLOPLAST DRAIN RIM: 722.78 INV IN: 717.33 (N) INV IN: 717.83 (S) INV OUT: 717.33 (W)	D160	12" NYLOPLAST DRAIN RIM: 723.28 INV OUT: 718.97 (N)
D130	6" NYLOPLAST DRAIN RIM: 726.00 INV IN: 720.91 (E) INV OUT: 720.91 (W)	D145	12" NYLOPLAST DRAIN RIM: 722.20 INV IN: 717.81 (N) INV OUT: 717.56 (S)	D161	6" DIA. MH - CLOSED LID GROUT IN EX. PIPE RIM: 725.43 INV OUT: 714.33 (NE)
D131	6" NYLOPLAST DRAIN RIM: 726.00 INV IN: 721.00 (E) INV OUT: 721.00 (W)	D146	12" NYLOPLAST DRAIN RIM: 721.39 INV IN: 718.38 (N) INV OUT: 718.13 (S)	D162	6" DIA. MH - CLOSED LID RIM: 724.48 INV IN: 714.28 (SW) INV OUT: 714.18 (N)
D132	6" NYLOPLAST DRAIN RIM: 726.00 INV IN: 721.10 (E) INV OUT: 721.10 (W)	D148	12" NYLOPLAST DRAIN RIM: 723.65 INV OUT: 720.34 (N)	D163	6" DIA. DOGHOUSE MH - CLOSED LID RIM: 723.82 INV IN: 714.01 (S)

GRADING LEGEND

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- R = RIM ELEVATION
- FG = FINISHED GRADE
- TS = TOP OF STAIRS
- BS = BOTTOM OF STAIRS
- PROPOSED CONTOUR
- EXISTING CONTOUR
- RIDGE LINE
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- 100-YEAR OVERLAND OVERFLOW ROUTE
- DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
- PROPOSED SWALE
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- RIP RAP (SEE DETAILS)
- PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R-2540) (GRASS USE NEENAH R-4340-B BEEHIVE)
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- PROPOSED STORM SEWER LINE

KEY MAP

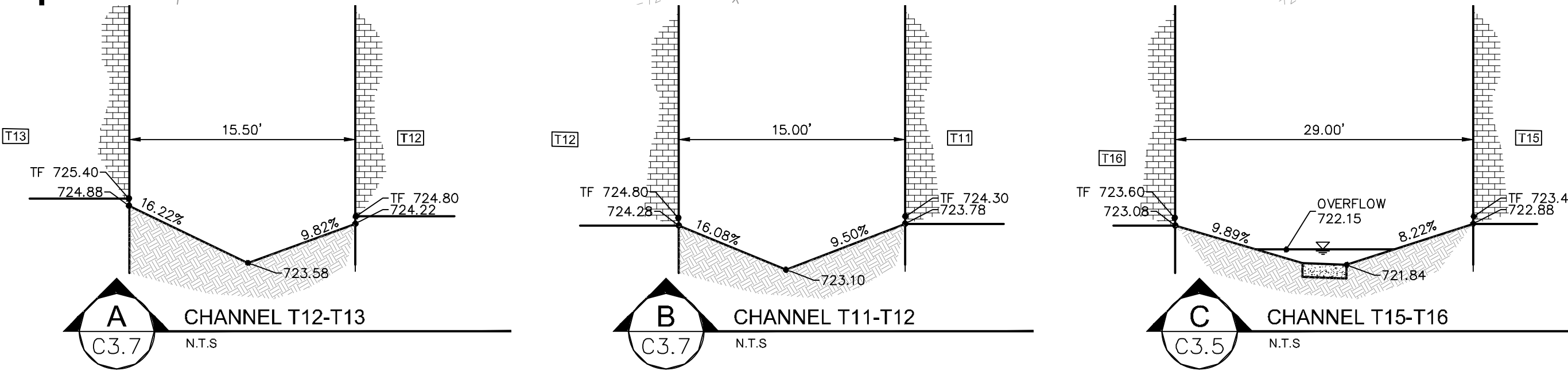


THE DETENTION POND VOLUMES PROVIDED WERE DETERMINED UPON THE USE OF THE VILLAGE OF ORLAND PARK LDC RELEASE RATES. POND RESTRICTORS HAVE BEEN OVERSIZED TO MAINTAIN HYDROLOGY OF DOWNSTREAM JURISDICTIONAL WETLAND. NO EXCESS VOLUME HAS BEEN PROVIDED WITHIN PONDS FOR USE BEYOND THE LIMITS OF THIS DEVELOPMENT. NO CHANGE TO OUTLET RESTRICTORS IS ALLOWED WITHOUT PRIOR APPROVAL OF THE VILLAGE.

GRADING NOTES

- ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO FLOW LINE ELEVATIONS UNLESS OTHERWISE NOTED.
- ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. GENERAL CONTRACTOR TO COORDINATE WITH EXCAVATION, LANDSCAPE AND PAVING SUBCONTRACTORS REGARDING TOPSOIL THICKNESS FOR LANDSCAPE AREAS AND PAVEMENT SECTION THICKNESS FOR PAVED AREAS TO PROPERLY ENSURE ADEQUATE CUT TO ESTABLISH SUBGRADE ELEVATIONS.
- NO EARTHEN SLOPE SHALL BE GREATER THAN 4:1, UNLESS OTHERWISE NOTED.
- MAXIMUM SLOPE IN ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS.
- MAXIMUM RUNNING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2% ON ALL SIDEWALKS AND ACCESSIBLE ROUTES.
- MATCH EXISTING ELEVATIONS AT THE PROPERTY LIMITS.
- ALL ONSITE CONCRETE SIDEWALK IS DESIGNED AT 1% CROSS SLOPE UNLESS OTHERWISE NOTED.

FES TABLE	
STRUCTURE NAME:	DETAILS:
D116	15" FES INV IN: 716.25 (NE)
D119	36" FES INV IN: 715.00 (E)



Drawing name: K:\CHS_LDEV\16862600_SR Jacobson_Grand Park_IL\2 Design\CAD\PlanSheets\Final Engineering\C3.8 ROUNDABOUT GRADING AND UTILITY PLAN.dwg C3.8 ROUNDABOUT GRADING AND UTILITY PLAN.dwg Feb 13, 2020 3:00pm by: Taylor-Eschbach
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UTILITY CROSSING LEGEND

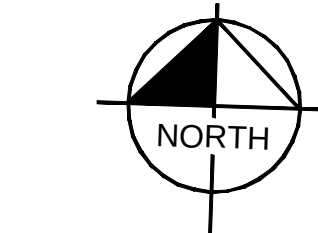
X1	12" STORM 8" WATER	B/P = 715.20 T/P = 713.70
X2	8" SANITARY 8" WATER	B/P = 711.78 T/P = 710.28
X3	36" STORM 8" WATER	B/P = 714.77 T/P = 713.27
X4	24" STORM 8" WATER	B/P = 715.02 T/P = 713.52

NOTE: WHERE THERE IS LESS THAN 10 FT HORIZONTAL OR 18-IN VERTICAL SEPARATION BETWEEN A SEWER AND WATER MAIN, OR IF WATER MAIN CROSSES UNDER A SEWER, WATER MAIN QUALITY PIPE IS TO BE USED TO CONSTRUCT THE SEWER OR EITHER PIPE IS TO BE ENCASED. THE PROTECTION MUST EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE DISTANCE BETWEEN THE WATER MAIN AND SEWER IS AT LEAST 10 FT. ACCEPTABLE WATER MAIN QUALITY PIPE INCLUDES PVC SDR/WMQ MEETING ASTM D2241 WITH JOINTS MEETING ASTM D3139 OR DUCTILE IRON PIPE. RCP STORM SEWER WITH FLEXIBLE GASKET JOINTS MEETING ASTM C361 OR ASTM C443 IS ALSO ACCEPTABLE AT CROSSINGS.

SEE SHEET C4.2 FOR KELLER
LAKE DRIVE PLAN AND PROFILE

KEY NOTES

- 1 CURB TRANSITION (B6.12 CONCRETE CURB AND GUTTER TO BARRIER CURB (SEE DETAILS)
- 2 CURB TRANSITION (B6.12 CONCRETE CURB AND GUTTER TO B6.18 CONCRETE CURB AND GUTTER (SEE DETAILS)
- 3 BARRIER CURB AND GUTTER (RESIDENTIAL, PER VILLAGE DETAILS)
- 4 6" LANDSCAPE CURB



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GRADING NOTES

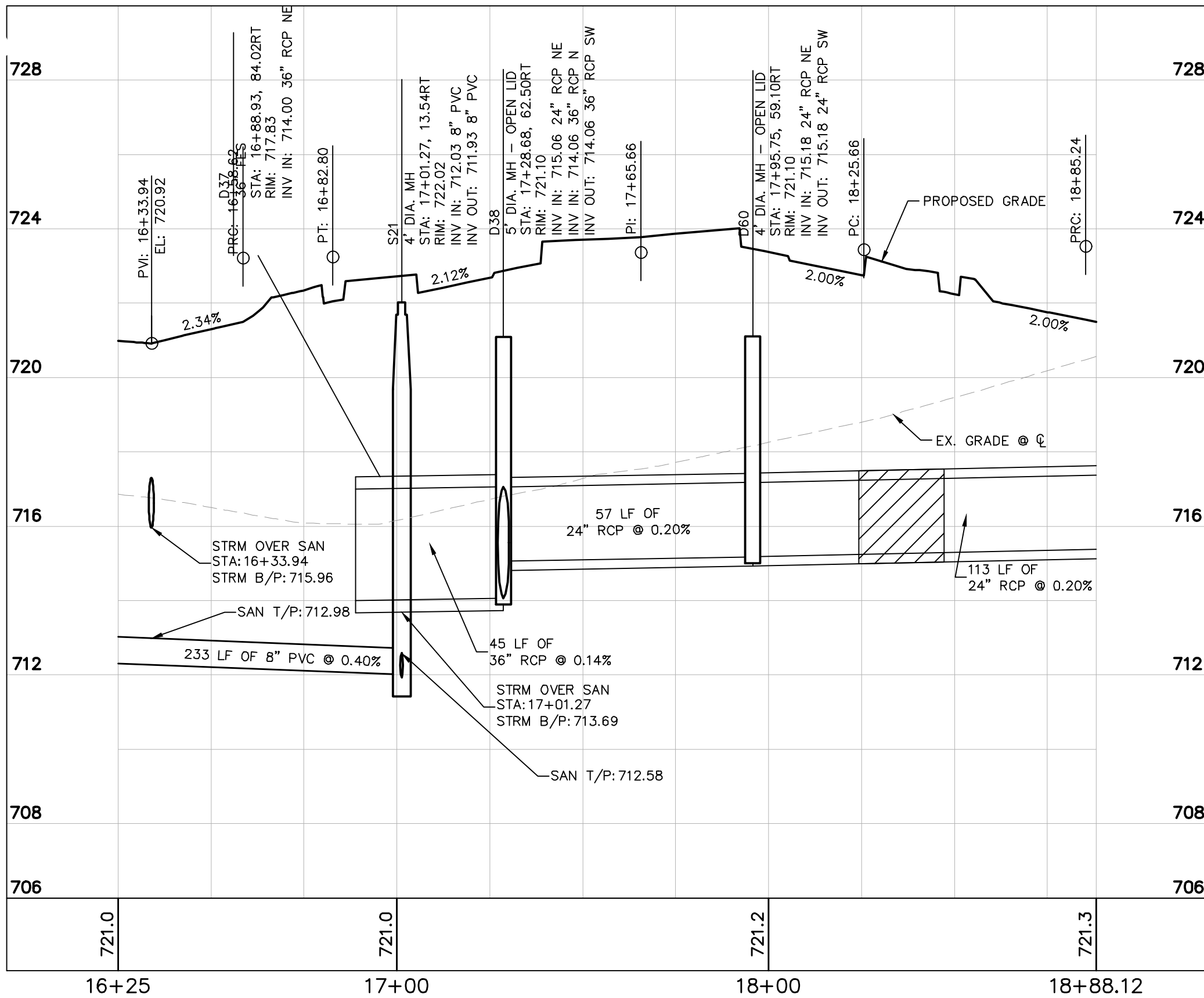
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3. NO EARTHEN SLOPE SHALL BE GREATER THAN 4:1, UNLESS OTHERWISE NOTED.
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EXISTING CONTOUR
RIDGE LINE
SLOPE AND FLOW DIRECTION
100-YEAR OVERLAND OVERFLOW ROUTE
DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
PROPOSED SWALE
PROPOSED RETAINING WALL
REVERSED PITCH CURB AND GUTTER
ACCESSIBLE ROUTE
RIP RAP (SEE DETAILS)
PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R-2540) (GRASS USE NEENAH R-4340-B BEEHIVE)
PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R-1772) (GRASS USE NEENAH R-1786)
PROPOSED COMBINATION CURB INLET (B6.12 C&G USE NEENAH R-3281-A) (FOR MOUNTABLE CURB USE NEENAH R-2540 REFER TO DETAILS)
PROPOSED STORM SEWER LINE

ROUNDABOUT PROFILE

1"=30' HORIZONTAL
1"=3' VERTICAL



LEGEND

- STANDARD PITCH CONCRETE CURB AND GUTTER
REVERSE PITCH CONCRETE CURB AND GUTTER
DENOTES ADA RAMP. CONTRACTOR TO INSTALL SPECIAL DEPRESSED CURB FOR RAMP CONSTRUCTION
CONCRETE SIDEWALK (SEE GRADING PLANS FOR DETAILED ELEVATIONS)
ASPHALT TRAIL (SEE GRADING PLANS FOR DETAILED ELEVATIONS)
GRANULAR TRENCH BACKFILL (SEE DETAILS)
SEWER PIPE WITHIN 10' OF WATERMAIN HORIZONTAL OR 18" VERTICAL DISTANCE TO BE PROTECTED PER UTILITY CROSSING LEGEND NOTE

WATER STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
W17	8" VALVE IN VAULT FG ELEV: 723.03
W40	8" VALVE IN VAULT FG ELEV: 703.55

FES TABLE

STRUCTURE NAME:	DETAILS:
D37	36" FES INV IN: 714.00 (NE)
D74	12" FES INV IN: 715.00 (NW)

STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
D38	5' DIA. MH - OPEN LID RIM: 721.10 INV IN: 715.06 (NE) INV IN: 714.06 (N) INV OUT: 714.06 (SW)
D39	4' DIA. MH - OPEN LID RIM: 722.23 INV IN: 714.21 (N) INV OUT: 714.21 (S)
D40	4' DIA. MH - OPEN LID RIM: 721.45 INV IN: 714.30 (N) INV OUT: 714.30 (S)
D60	4' DIA. MH - OPEN LID RIM: 721.10 INV IN: 715.18 (NE) INV OUT: 715.18 (SW)
D75	4' DIA. MH - OPEN LID RIM: 720.58 INV IN: 715.83 (NW) INV OUT: 715.83 (SE)
D76	2' INLET RIM: 720.55 INV OUT: 716.46 (SE)

SANITARY STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
S8A	4' DIA. MH RIM: 721.42 INV OUT: 712.75 (NW)
S21	4' DIA. MH RIM: 722.02 INV IN: 712.03 (SW) INV OUT: 711.93 (SE)

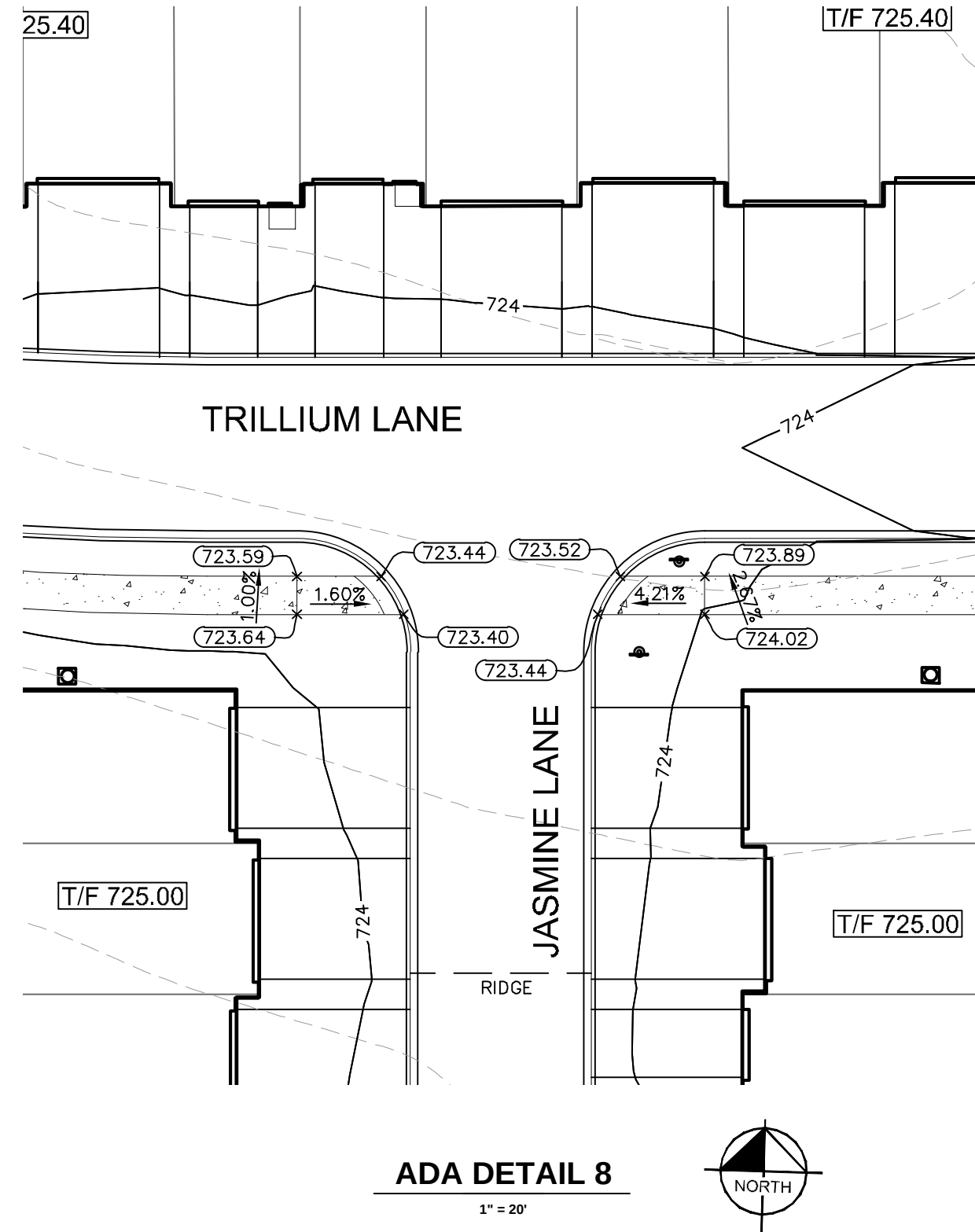
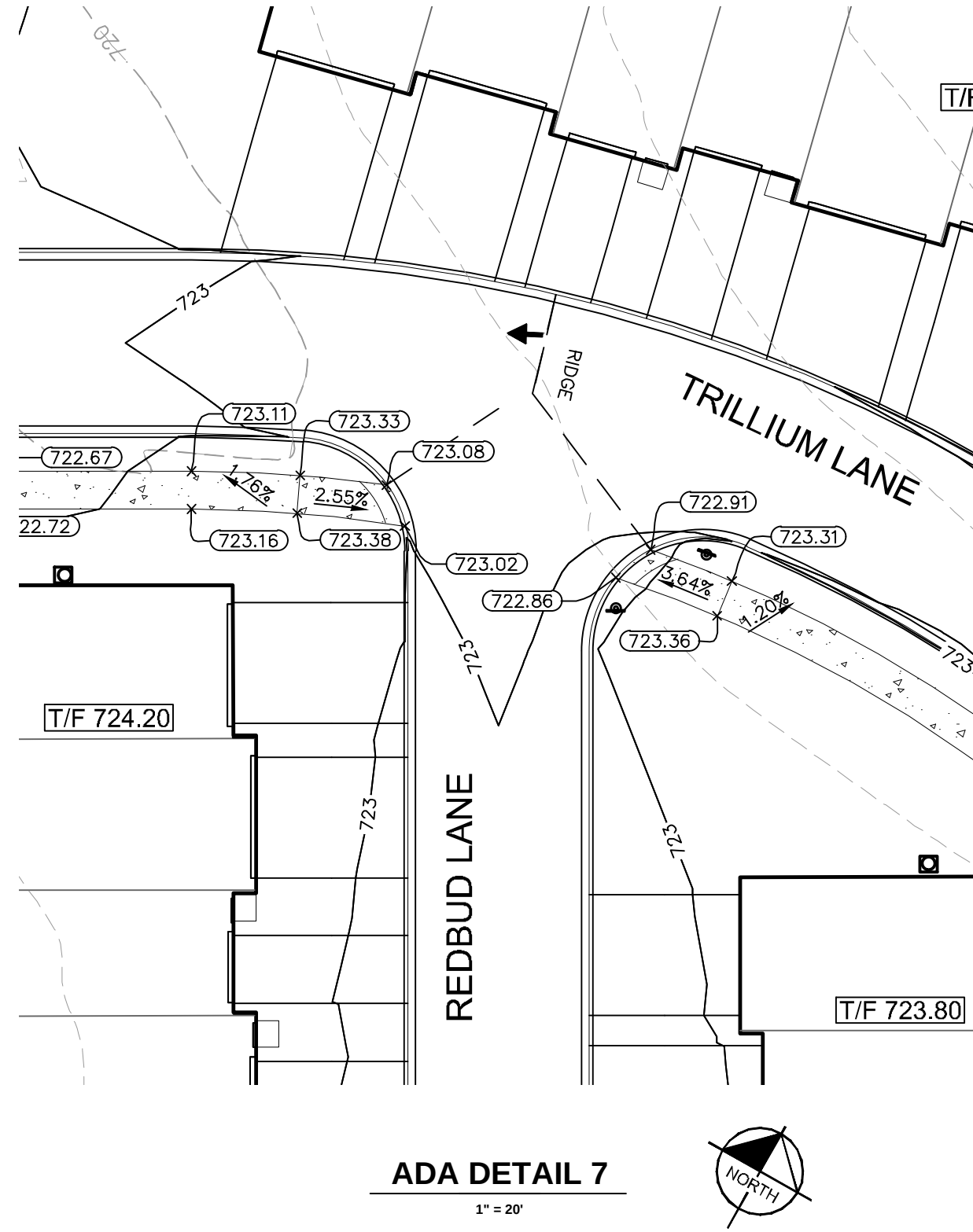
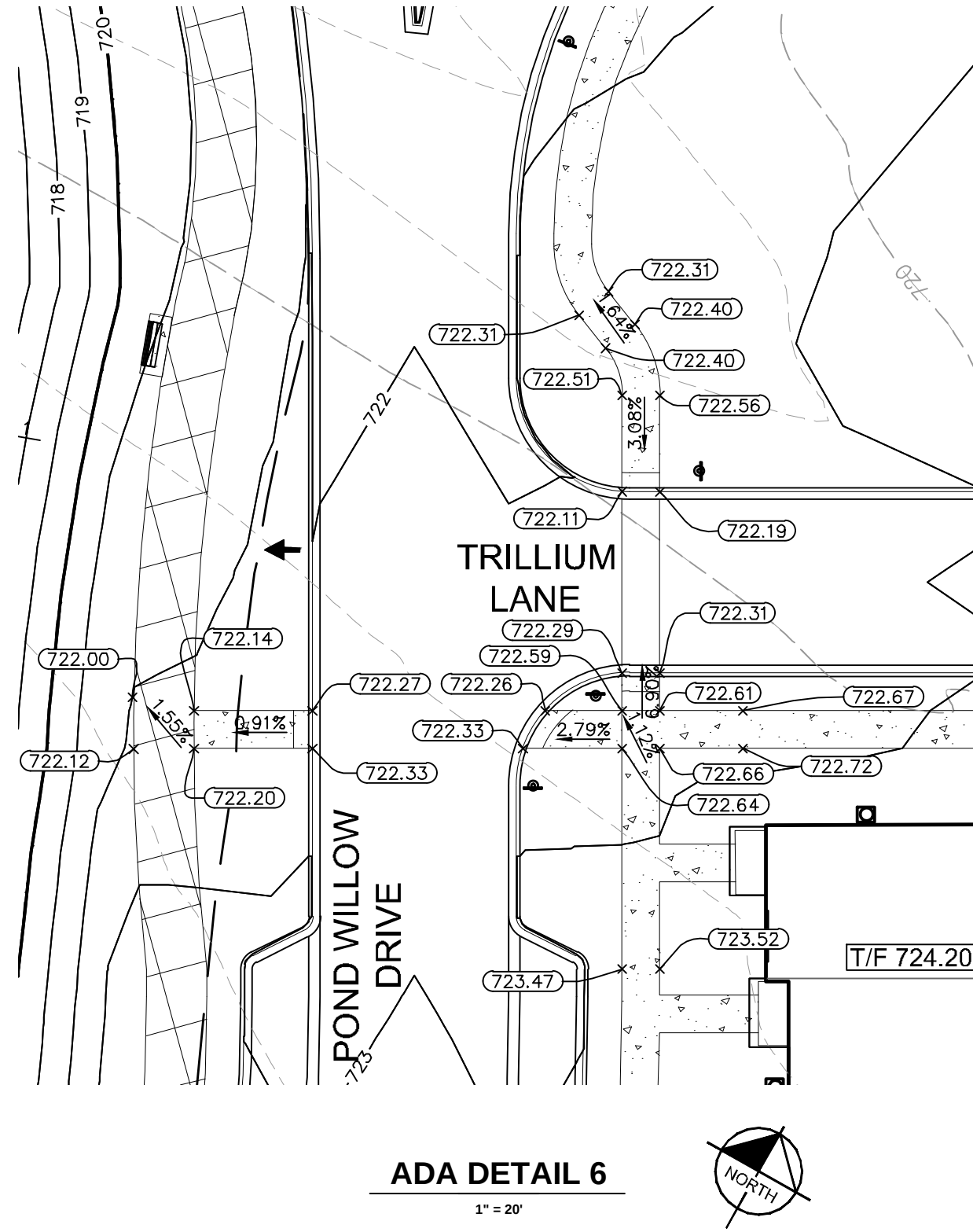
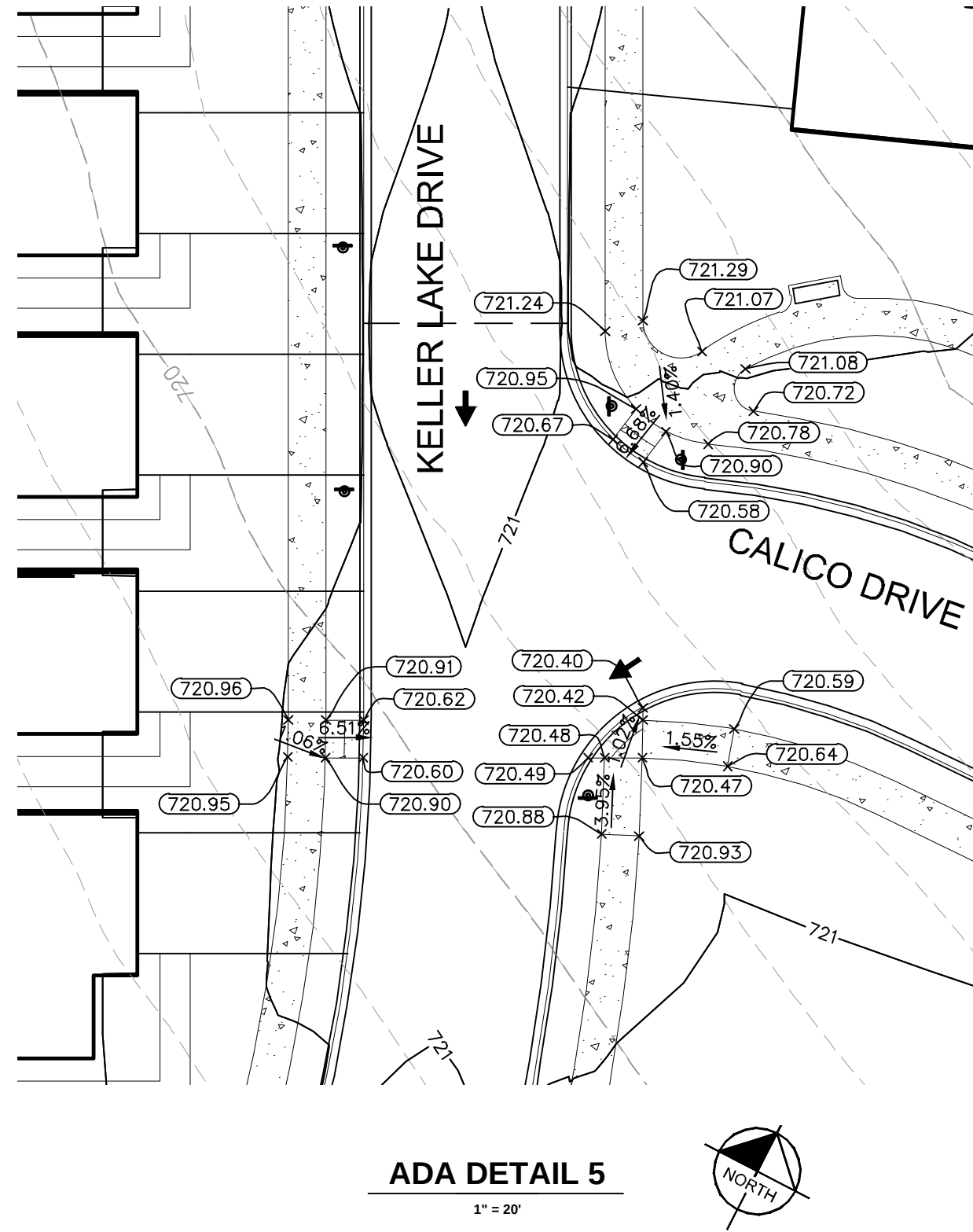
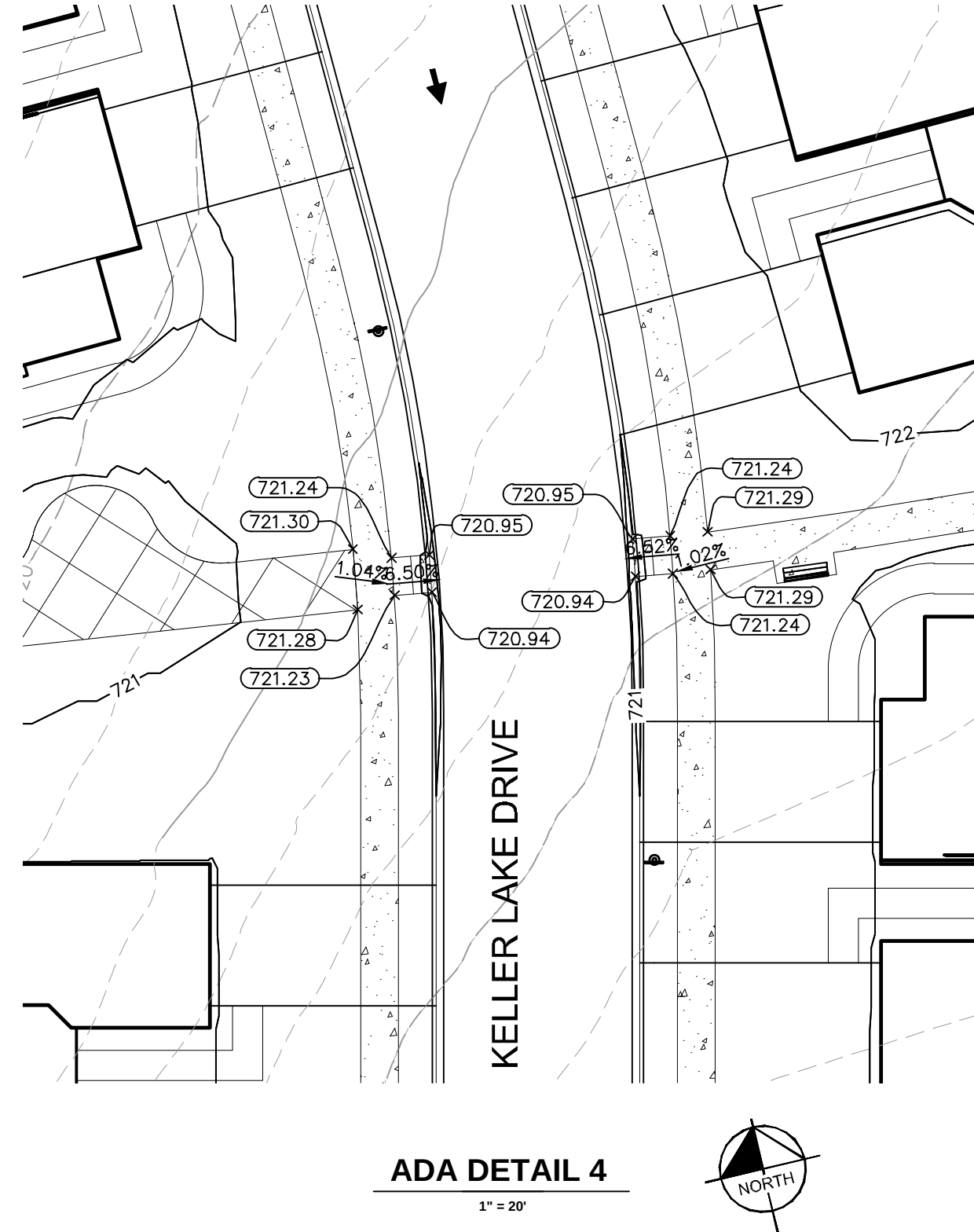
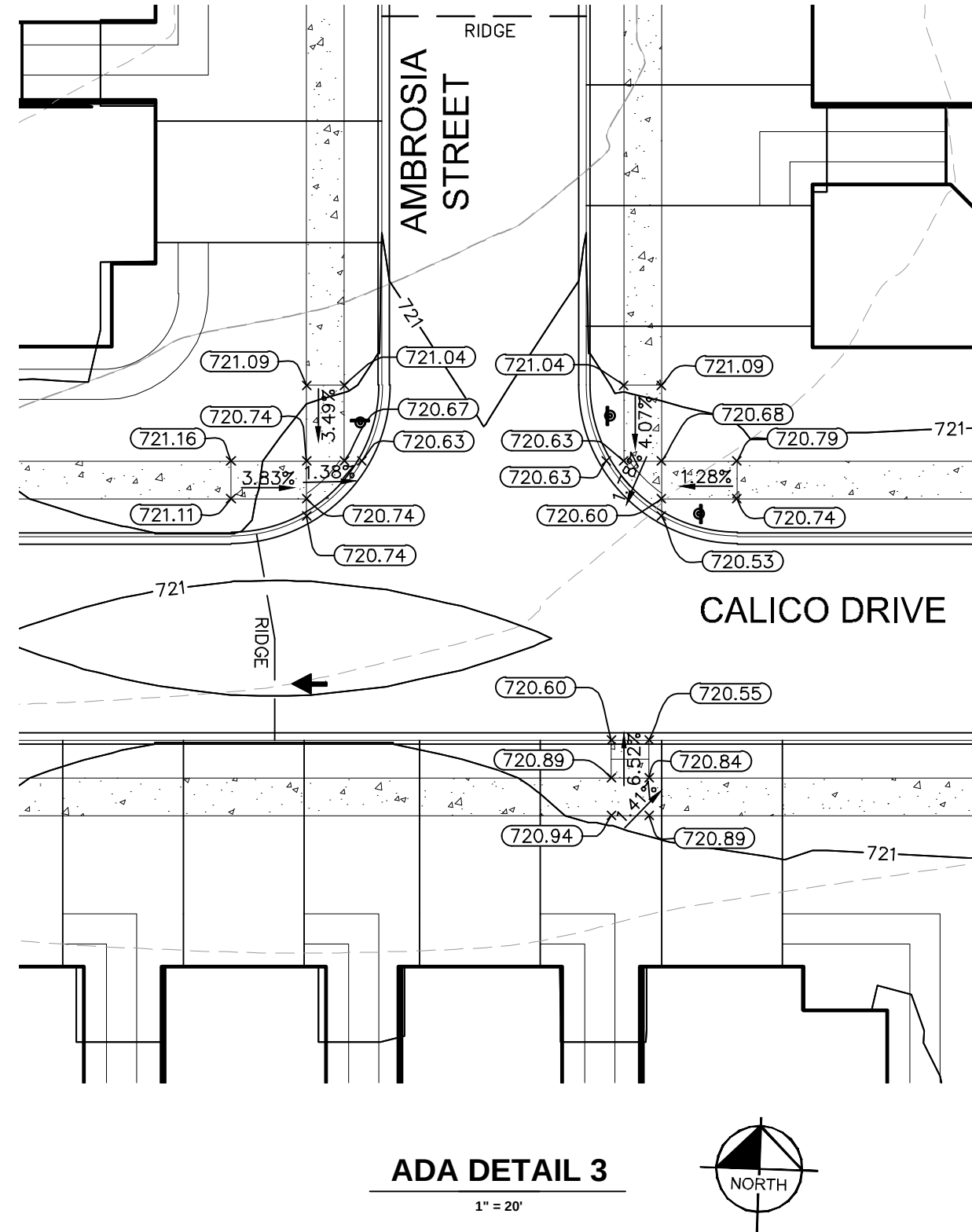
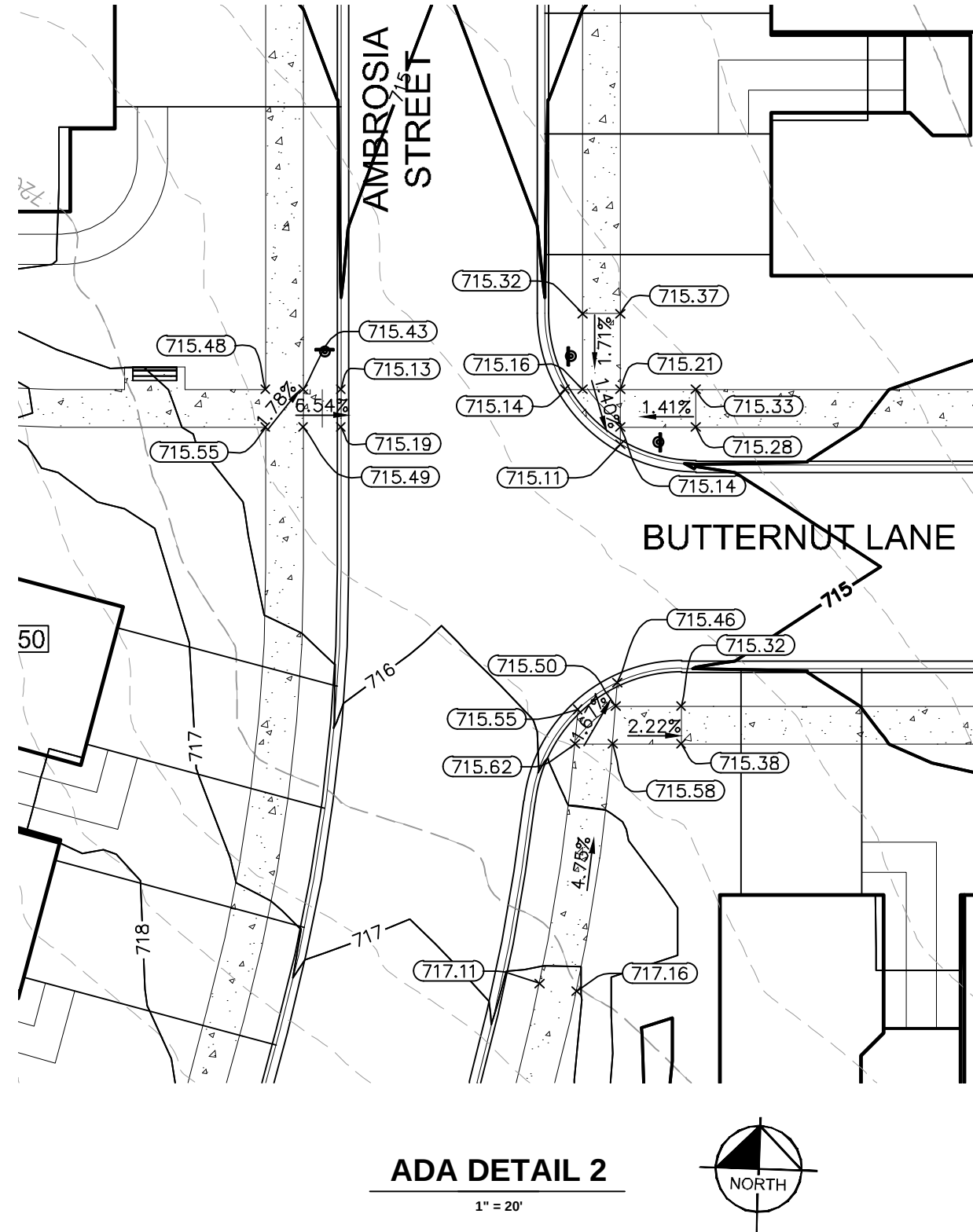
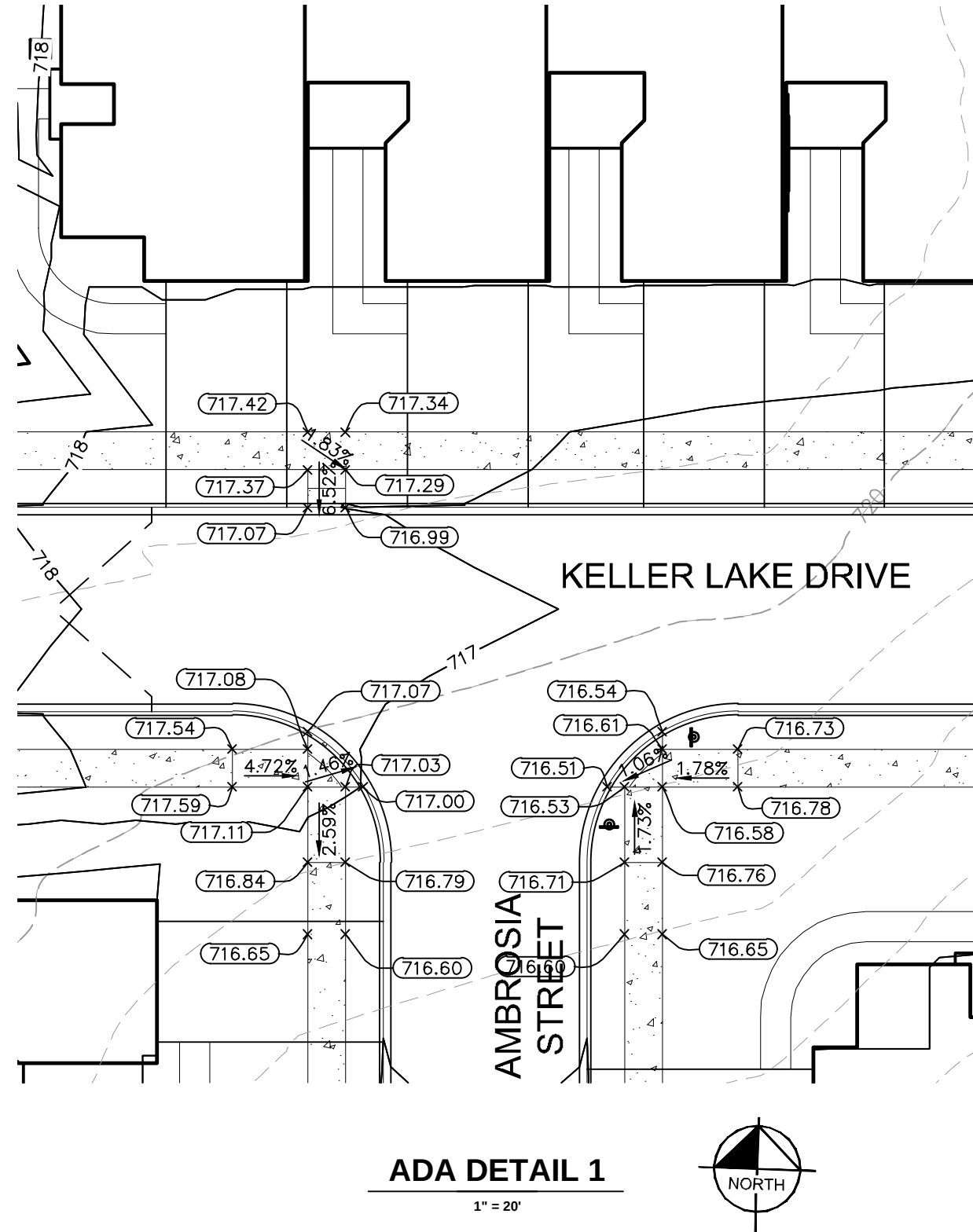
ROUNDABOUT
GRADING AND
UTILITY PLAN

ORLAND RIDGE
LAGRANGE ROAD & 171ST STREET
ORLAND PARK, IL 60487

ORIGINAL ISSUE:
07/17/2019
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SHEET NUMBER

C3.8

Drawing name: K:\GIS_LDEV\168626000_SR Jacobson_Grand Park_IL\2 Design\CAD\PlanSheets\Final Engineering\C3.9 ADA GRADING DETAILS.dwg C3.9 Feb 13, 2020 3:00pm by: Taylor-Eschbach
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ORLAND RIDGE LAGRANGE ROAD & 171ST STREET ORLAND PARK, IL 60487	SR JACOBSON CONSULTING ENGINEERS	ADA GRADING DETAILS	ORIGINAL ISSUE: 07/17/2019				KHA PROJECT NO. 168626000				SHEET NUMBER			
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