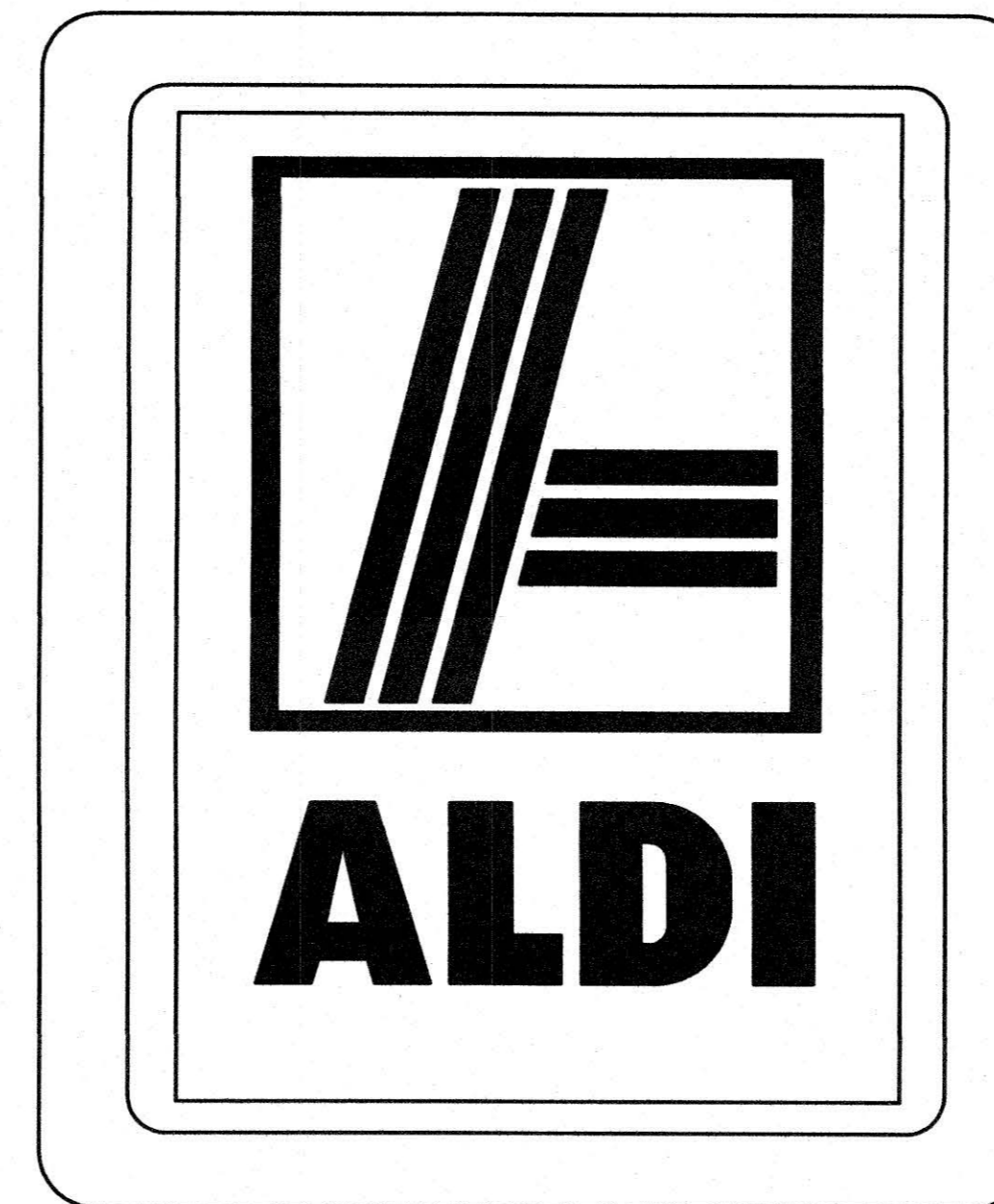


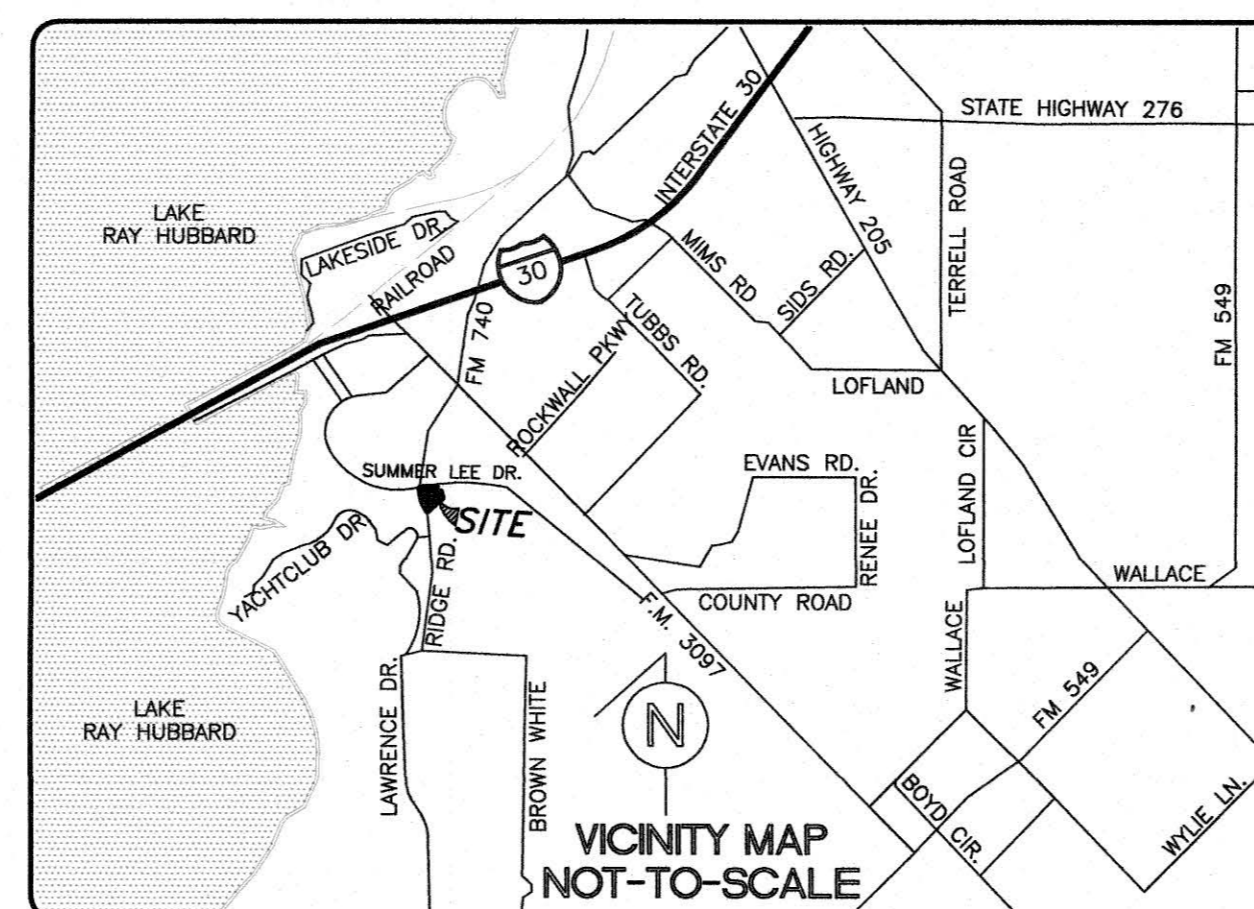
BUILDING EXPANSION PLANS FOR



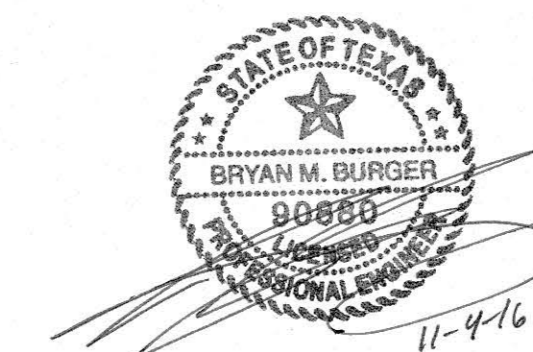
LOT 1, BLOCK A RIDGE/SUMMER LEE ADDITION S.E.C. RIDGE ROAD (F.M. 740) & SUMMER LEE DRIVE THE CITY OF ROCKWALL, TEXAS

OWNER:
ALDI, INC.
2500 WESTCOURT ROAD
DENTON, TEXAS 76207
(940) 220-5400
CONTACT: CHRIS WARWICK

CIVIL ENGINEER:
BURGER ENGINEERING, LLC
TEXAS REGISTERED ENGINEERING FIRM F-12997
17103 PRESTON ROAD, SUITE 180N
DALLAS, TEXAS 75248
(972) 630-3360
FAX: (972) 630-3380
CONTACT: BRYAN M. BURGER, P.E.



As-Built: 6-22-17

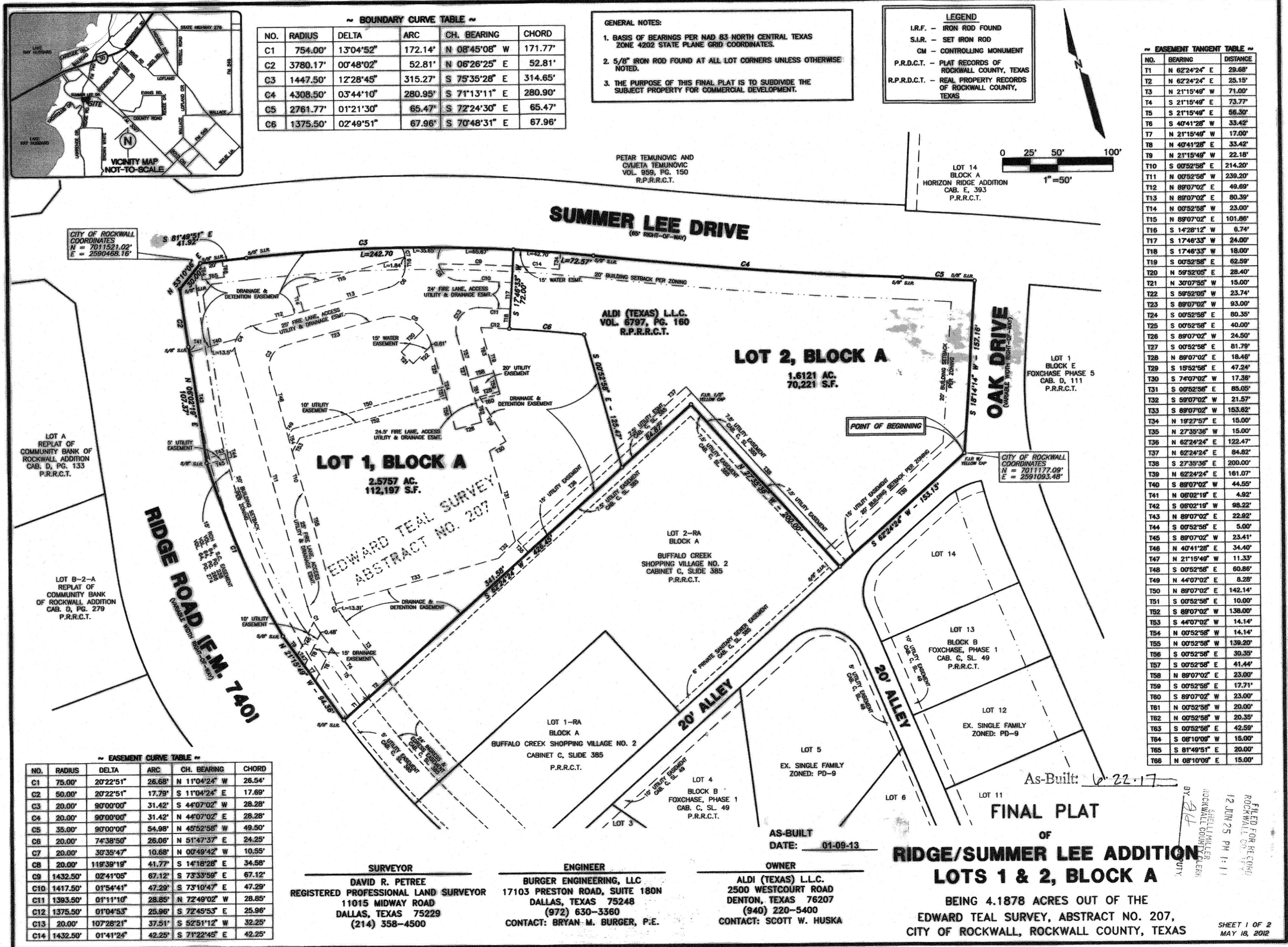


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B | BURGER
ENGINEERING
Civil Consultants

17103 Preston Road, Suite 180N
Dallas, Texas 75248
Office: 972.630.3360 Fax: 972.630.3380
TBPE F-12997



OWNER'S CERTIFICATE

STATE OF TEXAS
COUNTY OF ROCKWALL

WHEREAS, ALDI (TEXAS) L.L.C. IS THE OWNER OF A TRACT OF LAND SITUATED IN THE EDWARD TEAL SURVEY, ABSTRACT NO. 207, CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS AND BEING ALL OF A 4.1878 ACRE TRACT OF LAND AS DESCRIBED IN A GENERAL WARRANTY DEED TO ALDI (TEXAS) L.L.C., RECORDED IN VOLUME 6797, PAGE 160, OF THE REAL PROPERTY RECORDS OF ROCKWALL COUNTY, TEXAS AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 5/8" IRON ROD WITH YELLOW CAP FOUND FOR CORNER AT THE SOUTHEAST CORNER OF SAID 4.1878 ACRE TRACT, AND BEING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF OAK DRIVE (VARIABLE WIDTH RIGHT-OF-WAY) AND THE NORTHWEST LINE OF A 20 FOOT ALLEY PER PLAT OF FOXCHASE PHASE 1, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS, ACCORDING TO THE PLAT THEREOF RECORDED IN CABINET C AT SLIDE 49 OF THE PLAT RECORDS OF ROCKWALL COUNTY, TEXAS;

THENCE SOUTH 62° 24' 24" WEST AND DEPARTING THE WEST RIGHT-OF-WAY LINE OF SAID OAK DRIVE AND FOLLOWING ALONG THE NORTHWEST RIGHT-OF-WAY LINE OF SAID ALLEY, FOR A DISTANCE OF 153.13 FEET TO A 5/8" IRON ROD SET FOR CORNER AT THE EAST CORNER OF LOT 2-RA, BLOCK A OF THE AMENDED PLAT FOR BUFFALO CREEK SHOPPING VILLAGE NO. 2, BEING A REPLAT OF LOT 1, BLOCK A, AN ADDITION TO THE CITY OF ROCKWALL, TEXAS, ACCORDING TO THE PLAT THEREOF RECORDED IN CABINET C AT SLIDE 365, OF THE PLAT RECORDS OF ROCKWALL COUNTY, TEXAS;

THENCE NORTH 27° 35' 36" WEST AND FOLLOWING ALONG THE EASTERLY LINE OF SAID LOT 2-RA, BLOCK A FOR A DISTANCE OF 200.00 FEET TO A 1/2" IRON ROD WITH YELLOW CAP FOUND FOR THE NORTHEAST CORNER OF SAID LOT 2-RA, BLOCK A;

THENCE SOUTH 62° 24' 24" WEST AND FOLLOWING ALONG THE NORTHWEST LINE OF SAID LOT 2-RA, BLOCK A FOR A DISTANCE OF 426.45 FEET TO A 5/8" IRON ROD SET FOR CORNER IN THE EAST RIGHT-OF-WAY LINE OF RIDGE ROAD - F.M. 740 (A VARIABLE WIDTH RIGHT-OF-WAY), AS ESTABLISHED BY DEED CONVEYED TO THE STATE OF TEXAS CALLED 0.1366 ACRES AS RECORDED IN DOCUMENT NUMBER 2008-00411059 OF THE REAL PROPERTY RECORDS OF ROCKWALL COUNTY, TEXAS;

THENCE NORTH 21° 15' 49" WEST AND FOLLOWING ALONG THE EAST RIGHT-OF-WAY LINE OF SAID RIDGE ROAD - F.M. 740 AS CONVEYED TO THE STATE OF TEXAS AS RECORDED IN DOCUMENT NUMBER 2008-00411059 OF THE REAL PROPERTY RECORDS OF ROCKWALL COUNTY, TEXAS, FOR A DISTANCE OF 94.36 FEET TO A 5/8" IRON ROD SET FOR CORNER, SAID POINT BEING THE BEGINNING OF A ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 754.00 FEET WITH A CENTRAL ANGLE OF 13° 04' 52" AND A CHORD BEARING NORTH 08° 45' 08" WEST AT A DISTANCE OF 171.77 FEET;

THENCE NORTHWESTERLY ALONG SAID CURVE TO THE RIGHT AND ALONG THE EAST RIGHT-OF-WAY LINE OF SAID RIDGE ROAD - F.M. 740, FOR AN ARC DISTANCE OF 172.14 FEET TO A 5/8" IRON ROD SET FOR CORNER;

THENCE NORTH 08° 02' 19" EAST AND CONTINUING ALONG THE EAST RIGHT-OF-WAY LINE OF SAID RIDGE ROAD - F.M. 740, FOR A DISTANCE OF 107.37 FEET TO A 5/8" IRON ROD SET FOR CORNER AT THE BEGINNING OF A CURVE TO THE RIGHT HAVING A RADIUS OF 3780.17 FEET WITH A CENTRAL ANGLE OF 00° 48' 02" AND A CHORD BEARING NORTH 06° 26' 25" EAST AT A DISTANCE OF 52.81 FEET;

THENCE NORTHEASTERLY ALONG SAID CURVE TO THE RIGHT AND FOLLOWING ALONG THE EAST RIGHT-OF-WAY LINE OF SAID RIDGE ROAD - F.M. 740, FOR AN ARC DISTANCE OF 52.81 FEET TO A 5/8" IRON ROD SET FOR CORNER AT THE SOUTH END OF A CORNER CLIP FOUND AT THE INTERSECTION OF EAST RIGHT-OF-WAY LINE OF SAID RIDGE ROAD - F.M. 740 AND THE SOUTHWEST RIGHT-OF-WAY LINE OF SUMMER LEE DRIVE AS ESTABLISHED BY RIGHT OF WAY DEED TO THE CITY OF ROCKWALL AS RECORDED IN DOCUMENT NO. 2008-00396193 OF THE REAL PROPERTY RECORDS OF ROCKWALL COUNTY, TEXAS;

THENCE NORTH 53° 10' 06" EAST AND FOLLOWING ALONG SAID CORNER CLIP, FOR A DISTANCE OF 30.00 FEET TO A 5/8" IRON ROD SET FOR CORNER, SAME BEING THE NORTH END OF SAID CORNER CLIP IN THE SOUTHWEST RIGHT-OF-WAY LINE OF SUMMER LEE DRIVE (65 FOOT WIDE);

THENCE SOUTH 81° 49' 51" EAST AND FOLLOWING ALONG THE SOUTHWEST RIGHT-OF-WAY LINE OF SAID SUMMER LEE DRIVE, FOR A DISTANCE OF 41.92 FEET TO A 5/8" IRON ROD SET FOR CORNER AT THE BEGINNING OF A CURVE TO THE RIGHT HAVING A RADIUS OF 1447.50 FEET WITH A CENTRAL ANGLE OF 12° 28' 45" AND A CHORD BEARING SOUTH 75° 35' 28" EAST AT A DISTANCE OF 314.65 FEET;

THENCE SOUTHEASTERLY ALONG SAID CURVE TO THE RIGHT AND FOLLOWING ALONG THE SOUTHWEST RIGHT-OF-WAY LINE OF SAID SUMMER LEE DRIVE, FOR AN ARC DISTANCE OF 315.27 FEET TO A 5/8" IRON ROD SET FOR CORNER AT THE BEGINNING OF A CURVE TO THE LEFT HAVING A RADIUS OF 4308.50 FEET WITH A CENTRAL ANGLE OF 03° 44' 10" AND A CHORD BEARING OF SOUTH 71° 13' 11" EAST AT A DISTANCE OF 280.90 FEET;

THENCE SOUTHEASTERLY ALONG SAID CURVE TO THE LEFT AND FOLLOWING ALONG THE SOUTHWEST RIGHT-OF-WAY LINE OF SAID SUMMER LEE DRIVE, FOR AN ARC DISTANCE OF 280.95 FEET TO A 5/8" IRON ROD SET FOR CORNER AT THE BEGINNING OF A CURVE TO THE LEFT HAVING A RADIUS OF 2781.77 FEET WITH A CENTRAL ANGLE OF 01° 21' 30" AND A CHORD BEARING OF SOUTH 72° 24' 30" EAST AT A DISTANCE OF 65.47 FEET;

THENCE SOUTHEASTERLY ALONG SAID CURVE TO THE LEFT AND ALONG THE SOUTHWEST RIGHT-OF-WAY LINE OF SAID SUMMER LEE DRIVE, FOR AN ARC DISTANCE OF 65.47 FEET TO A 5/8" IRON ROD SET FOR CORNER AT THE INTERSECTION OF SOUTHWEST RIGHT-OF-WAY LINE OF SAID SUMMER LEE DRIVE AND THE NORTHWEST RIGHT-OF-WAY LINE OF AFOREMENTIONED OAK DRIVE;

THENCE SOUTH 18° 14' 14" WEST AND DEPARTING THE SOUTHWEST RIGHT-OF-WAY LINE OF SAID SUMMER LEE DRIVE AND FOLLOWING ALONG THE NORTHWEST RIGHT-OF-WAY LINE OF AFOREMENTIONED OAK DRIVE, FOR A DISTANCE OF 157.16 FEET TO THE POINT OF BEGINNING AND CONTAINING WITHIN THESE METES AND BOUNDS, 4.1878 ACRES OR 182,419 SQUARE FEET OF LAND, MORE OR LESS.

OWNER'S DEDICATION

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

STATE OF TEXAS
COUNTY OF ROCKWALL

WE, THE UNDERSIGNED OWNERS OF THE LAND SHOWN ON THIS PLAT, AND DESIGNATED HEREIN AS THE RIDGE/SUMMER LEE ADDITION TO THE CITY OF ROCKWALL, TEXAS, AND WHOSE NAME IS SUBSCRIBED HERETO, HEREBY DEDICATE TO THE USE OF THE PUBLIC FOREVER ALL STREETS, ALLEYS, PARKS, WATER COURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN ON THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED. WE FURTHER CERTIFY THAT ALL OTHER PARTIES WHO HAVE A MORTGAGE OR LIEN INTEREST IN THE RIDGE/SUMMER LEE ADDITION HAVE BEEN NOTIFIED AND SIGNED THIS PLAT.

WE UNDERSTAND AND DO HEREBY RESERVE THE EASEMENT STRIPS SHOWN ON THIS PLAT FOR THE PURPOSE STATED AND FOR THE MUTUAL USE AND ACCOMMODATION OF ALL UTILITIES DESIRING TO USE OR USING SAME. WE ALSO UNDERSTAND THE FOLLOWING:

1. NO BUILDINGS SHALL BE CONSTRUCTED OR PLACED UPON, OVER, OR ACROSS THE UTILITY EASEMENTS AS DESCRIBED HEREIN.
2. ANY PUBLIC UTILITY SHALL HAVE THE RIGHT TO REMOVE AND KEEP REMOVED ALL OR PART OF ANY BUILDINGS, FENCES, TREES, SHRUBS, OR OTHER GROWTHS OF IMPROVEMENTS WHICH IN ANY WAY ENDANGER OR INTERFERE WITH CONSTRUCTION, MAINTENANCE OR EFFICIENCY OF THEIR RESPECTIVE SYSTEM ON ANY OF THESE EASEMENT STRIPS; AND ANY PUBLIC UTILITY SHALL AT ALL TIMES HAVE THE RIGHT OF INGRESS OR EGRESS TO, FROM AND UPON THE SAID EASEMENT STRIPS FOR PURPOSE OF CONSTRUCTION, RECONSTRUCTION, INSPECTING, PATROLLING, MAINTAINING, AND EITHER ADDING TO OR REMOVING ALL OF PART OF THEIR RESPECTIVE SYSTEM WITHOUT THE NECESSITY OF, AT ANY TIME, PROCURING THE PERMISSION OF ANYONE.
3. THE CITY OF ROCKWALL WILL NOT BE RESPONSIBLE FOR ANY CLAIMS OF ANY NATURE RESULTING FROM OR OCCASIONED BY THE ESTABLISHMENT OF GRADE OF STREETS IN THE SUBDIVISION.
4. THE DEVELOPER AND SUBDIVISION ENGINEER SHALL BEAR TOTAL RESPONSIBILITY FOR STORM DRAIN IMPROVEMENTS.
5. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE NECESSARY FACILITIES TO PROVIDE DRAINAGE PATTERNS AND DRAINAGE CONTROLS SUCH THAT PROPERTIES WITHIN THE DRAINAGE AREA ARE NOT ADVERSELY AFFECTED BY STORM DRAINAGE FROM THE DEVELOPMENT.
6. NO HOUSE DWELLING UNIT, OR OTHER STRUCTURE SHALL BE CONSTRUCTED ON ANY LOT IN THIS ADDITION BY THE OWNER OR ANY OTHER PERSON UNTIL THE DEVELOPER AND/OR OWNER HAS COMPLIED WITH ALL REQUIREMENTS OF THE SUBDIVISION REGULATIONS OF THE CITY OF ROCKWALL REGARDING IMPROVEMENTS WITH RESPECT TO THE ENTIRE BLOCK ON THE STREET OR STREETS ON WHICH PROPERTY ABUTS, INCLUDING THE ACTUAL INSTALLATION OF STREETS WITH THE REQUIRED BASE AND PAVING, CURB AND GUTTER, WATER AND SEWER, DRAINAGE STRUCTURES, STORM STRUCTURES, STORM SEWERS, AND ALLEYS, ALL ACCORDING TO THE SPECIFICATIONS OF THE CITY OF ROCKWALL; OR

UNTIL AN ESCROW DEPOSIT, SUFFICIENT TO PAY FOR THE COST OF SUCH IMPROVEMENTS, AS DETERMINED BY THE CITY'S ENGINEER AND/OR CITY ADMINISTRATOR, COMPUTED ON A PRIVATE COMMERCIAL RATE BASIS, HAS BEEN MADE WITH THE CITY SECRETARY, ACCOMPANIED BY AN AGREEMENT SIGNED BY THE DEVELOPER AND/OR OWNER, AUTHORIZING THE CITY TO MAKE SUCH IMPROVEMENTS AT PREVAILING PRIVATE COMMERCIAL RATES, OR HAVE THE SAME MADE BY A CONTRACTOR AND PAY FOR THE SAME OUT OF THE ESCROW DEPOSIT. SUCH DEPOSIT MAY BE USED BY THE OWNER AND/OR DEVELOPER AS PROGRESS PAYMENTS AS THE WORK PROGRESSES IN MAKING SUCH IMPROVEMENTS BY MAKING CERTIFIED REQUESTIONS TO THE CITY SECRETARY, SUPPORTED BY EVIDENCE OF WORK DONE; OR

UNTIL THE DEVELOPER AND/OR OWNER FILES A CORPORATE SURETY BOND WITH THE CITY SECRETARY IN A SUM EQUAL TO THE COST OF SUCH IMPROVEMENTS FOR THE DESIGNATED AREA, GUARANTEEING THE INSTALLATION THEREOF WITHIN THE TIME STATED IN THE BOND, WHICH TIME SHALL BE FIXED BY THE CITY COUNCIL OF THE CITY OF ROCKWALL.

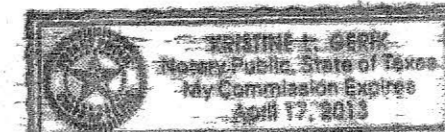
WE FURTHER ACKNOWLEDGE THAT THE DEDICATIONS AND/OR EXACTION'S MADE HEREIN ARE PROPORTIONAL TO THE IMPACT OF THE SUBDIVISION UPON THE PUBLIC SERVICES REQUIRED IN ORDER THAT THE DEVELOPMENT WILL COMPORT WITH THE PRESENT AND FUTURE GROWTH NEEDS OF THE CITY; WE, OUR SUCCESSORS AND ASSIGNS HEREBY WAIVE ANY CLAIM, DAMAGE, OR CAUSE OF ACTION THAT WE MAY HAVE AS A RESULT OF THE DEDICATION OF EXACTIONS MADE HEREIN.

WITNESS, MY HAND AT Denton, TEXAS, THIS 29 DAY OF May, 2012.ALDI (TEXAS), L.L.C.
A TEXAS LIMITED LIABILITY COMPANYBY: ALDI INC. (PENNSYLVANIA),
A PENNSYLVANIA CORPORATION,
ITS: SOLE MEMBERBY: Scott W. Huska
NAME: SCOTT W. HUSKA
TITLE: VICE PRESIDENTSTATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED SCOTT W. HUSKA, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSE AND CONSIDERATION THEREIN STATED.

GIVEN UPON MY HAND AND SEAL OF OFFICE THIS 29 DAY OF May, 2012.

Kristine L. Gervy
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS



SURVEYOR'S STATEMENT

KNOW ALL MEN BY THESE PRESENTS:

THAT I, DAVID R. PETREE, DO HEREBY CERTIFY THAT I PREPARED THIS PLAT FROM AN ACTUAL SURVEY OF LAND AND THAT THE CORNER MONUMENTS SHOWN THEREON WERE PLACED UNDER MY PERSONAL SUPERVISION.

DATED THIS THE 28TH DAY OF MAY, 2012.

David R. Petree
DAVID R. PETREE, R.P.L.S.
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 1890

STATE OF TEXAS
COUNTY OF DALLAS

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED DAVID R. PETREE, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSE AND CONSIDERATION THEREIN STATED.

GIVEN UPON MY HAND AND SEAL OF OFFICE THIS 28TH DAY OF MAY, 2012.

David R. Petree
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS
MY COMMISSION EXPIRES 01/31/16



RECOMMENDED FOR FINAL APPROVAL

Paula S. Smith
PLANNING AND ZONING COMMISSION

03-27-12
DATE

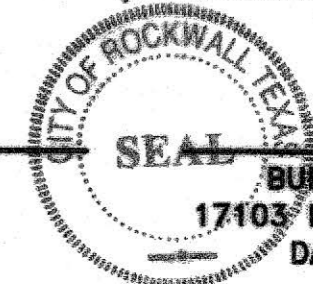
APPROVED

I HEREBY CERTIFY THAT THE ABOVE AND FORGOING PLAT OF AND ADDITION TO THE CITY OF ROCKWALL, TEXAS, WAS APPROVED BY THE CITY COUNCIL OF THE CITY OF ROCKWALL ON THE 22ND DAY OF April, 2012.

THIS APPROVAL SHALL BE INVALID UNLESS THE APPROVED PLAT FOR SUCH ADDITION IS RECORDED IN THE OFFICE OF THE COUNTY CLERK OF ROCKWALL, COUNTY, TEXAS, WITHIN ONE HUNDRED EIGHTY (180) DAY FROM SAID DATE OF FINAL APPROVAL.

WITNESS OUR HANDS, THIS 20TH DAY OF June, 2012.

Paul Sweet Kristy Robinson Chad Hill
MAYOR, CITY OF ROCKWALL CITY SECRETARY CITY ENGINEER



OWNER
ALDI (TEXAS) L.L.C.
2500 WESTCOURT ROAD
DENTON, TEXAS 76207
(940) 220-5400
CONTACT: SCOTT W. HUSKA

ENGINEER
BURGER ENGINEERING, LLC
17103 PRESTON ROAD, SUITE 180N
DALLAS, TEXAS 75248
(972) 630-3360
CONTACT: BRYAN M. BURGER, P.E.

SURVEYOR
DAVID R. PETREE
REGISTERED PROFESSIONAL LAND SURVEYOR
11015 MIDWAY ROAD
DALLAS, TEXAS 75229
(214) 358-4500

As-Built: 6-22-17

FINAL PLAT

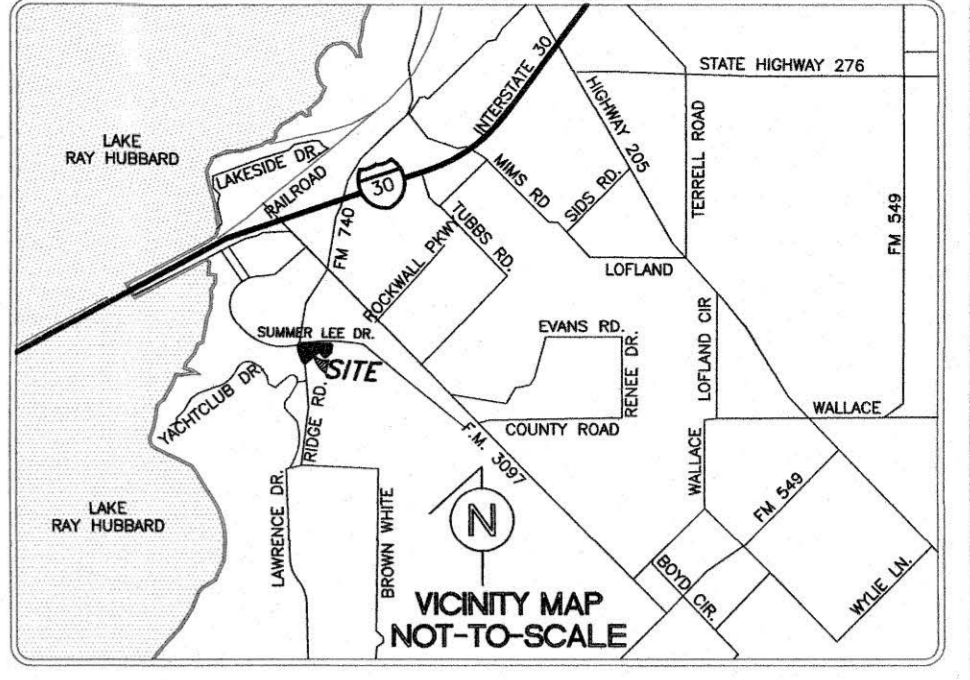
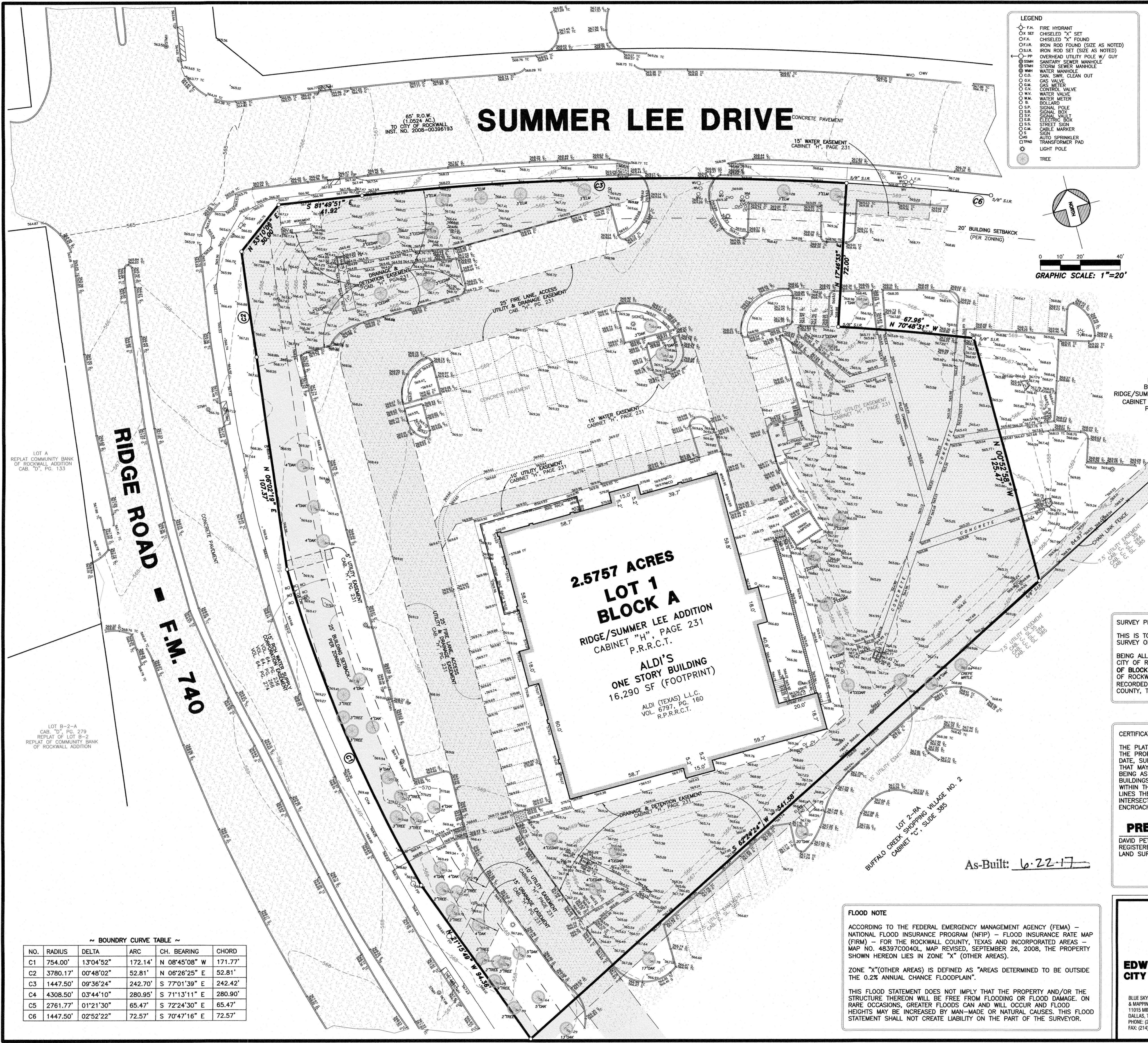
OF

RIDGE/SUMMER LEE ADDITION
LOTS 1 & 2, BLOCK A

BEING 4.1878 ACRES OUT OF THE
EDWARD TEAL SURVEY, ABSTRACT NO. 207,
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

SHEET 2 OF 2
MAY 18, 2012

4-225 C-1.2



CITY OF ROCKWALL BENCH MARKS
GPS CONTROL MONUMENT #R014, NAD83:
NORTHING= 7007583.687
EASTING= 2589828.481
ELEVATION= 561.017
GPS CONTROL MONUMENT #RESET 1, NAD83:
NORTHING= 7011544.252
EASTING= 2590135.160
ELEVATION= 567.704

SURVEY PLAT
THIS IS TO CERTIFY THAT I HAVE, THIS DATE, MADE A CAREFUL AND ACCURATE SURVEY ON THE GROUND OF FOLLOWING DESCRIBED PROPERTY.
BEING ALL THAT CERTAIN LOT, TRACT OR PARCEL OF LAND SITUATED IN THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS AND BEING ALL OF LOT 1 OF BLOCK A OF RIDGE/SUMMER LEE ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS, ACCORDING TO THE PLAT THEREOF RECORDED IN CABINET "H", PAGE 231 OF THE PLAT RECORDS OF ROCKWALL COUNTY, TEXAS.

CERTIFICATION
THE PLAT HEREON IS A TRUE, CORRECT AND ACCURATE REPRESENTATION OF THE PROPERTY AS DETERMINED BY SURVEY, MADE ON THE GROUND, THIS DATE, SUBJECT TO ANY AND ALL EASEMENTS, RESERVATIONS OR RESTRICTIONS THAT MAY BY OF RECORD, THE LINES AND DIMENSIONS OF SAID PROPERTY BEING AS INDICATED BY THE PLAT; THE SIZE, LOCATION AND TYPE OF BUILDINGS AND IMPROVEMENTS ARE AS SHOWN, ALL IMPROVEMENTS BEING WITHIN THE BOUNDARIES OF THE PROPERTY, SET BACK FROM THE PROPERTY LINES THE DISTANCES INDICATED AND THAT THE DISTANCE FROM THE NEAREST INTERSECTING STREET OR ROAD IS AS SHOWN ON SAID PLAT. THERE ARE NO ENCROACHMENTS, CONFLICTS OR PROTRUSIONS, EXCEPT AS SHOWN.
PRELIMINARY / FOR REVIEW
DAVID PETREE,
REGISTERED PROFESSIONAL
LAND SURVEYOR NO. 1890

FLOOD NOTE
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) - NATIONAL FLOOD INSURANCE PROGRAM (NFIP) - FLOOD INSURANCE RATE MAP (FIRM) - FOR THE ROCKWALL COUNTY, TEXAS AND INCORPORATED AREAS - MAP NO. 48397C0040L, MAP REVISED, SEPTEMBER 26, 2008, THE PROPERTY SHOWN HEREON LIES IN ZONE "X" (OTHER AREAS).
ZONE "X"(OTHER AREAS) IS DEFINED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN".
THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURE THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. ON RARE OCCASIONS, GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

TOPOGRAPHIC SURVEY
ALDI'S SITE
LOT 1 - BLOCK A
RIDGE/SUMMER LEE ADDITION
EDWARD TEAL SURVEY, ABSTRACT NO. 207
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

BLUE SKY SURVEYING & MAPPING, CORPORATION
11015 MIDWAY ROAD
DALLAS, TEXAS 75229
PHONE: (214) 558-4500
FAX: (214) 558-4600

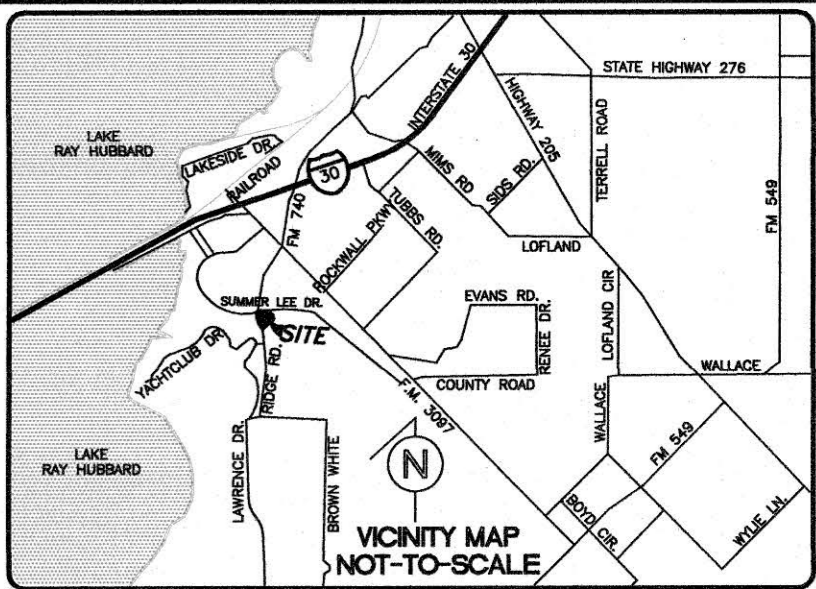
DATE: JULY 17, 2016
SCALE: 1"=20'
DTPETREE@BLUESKYSURVEYING.COM
TSPLS REGISTRATION NO. 10105700

~ BOUNDARY CURVE TABLE ~					
NO.	RADIUS	DELTA	ARC	CH. BEARING	CHORD
C1	754.00'	13°04'52"	172.14'	N 08°45'08" W	171.77'
C2	3780.17'	00°48'02"	52.81'	N 06°26'25" E	52.81'
C3	1447.50'	09°36'24"	242.70'	S 77°01'39" E	242.42'
C4	4308.50'	03°44'10"	280.95'	S 71°13'11" E	280.90'
C5	2761.77'	01°21'30"	65.47'	S 72°24'30" E	65.47'
C6	1447.50'	02°52'22"	72.57'	S 70°47'16" E	72.57'

PETER TEMUNOVIC AND
CIVIETA TEMUNOVIC
VOL. 959, PG. 150
R.P.R.C.T.
(VACANT)

~ CURVE TABLE ~					
NO.	RADIUS	DELTA	ARC	CH. BEARING	CHORD
C1	754.00'	13°04'52"	172.14'	N 08°45'08" W	171.77'
C2	3780.17'	00°48'02"	52.81'	N 06°26'25" E	52.81'
C3	1447.50'	09°36'24"	242.70'	S 77°01'39" E	242.42'
C4	1375.50'	02°49'51"	67.96'	S 70°48'31" E	67.96'

LOT 14
HORIZON RIDGE ADDITION
CAB. E, SL. 393
P.R.R.C.T.



SUMMER LEE DRIVE

(65' RIGHT-OF-WAY)

OAK DRIVE

(VARIABLE WIDTH RIGHT-OF-WAY)

LEGEND

- F.H. FIRE HYDRANT
- CHISELED "X" SET
- CHISELED "X" FOUND
- IRON ROD FOUND (SIZE AS NOTED)
- IRON ROD SET (SIZE AS NOTED)
- OVERHEAD UTILITY POLE W/ GUY
- UNDERGROUND ELECTRIC OR TELEPHONE
- L.P. LIGHT POLE
- SMH SANITARY SEWER MANHOLE
- C.O. SAN. SW. CLEAN OUT
- G.V. GAS VALVE
- W.V. WATER VALVE
- TREE
- LS LANDSCAPE
- BFR CONSTRUCT BARRIER FREE RAMP
- PROPOSED LIGHT POLE
- AREA TO BE DEMOLISHED
- FULL DEPTH SAWCUT & REMOVE

0 15' 30' 60'
1"=30'

GENERAL NOTES:

- CONTRACTOR SHALL ARRANGE AND PAY FOR DISCONNECTING, REMOVING, AND PLUGGING UTILITY SERVICES. CONTRACTOR TO NOTIFY AFFECTED UTILITY COMPANIES AND OBTAIN APPROVAL BEFORE STARTING WORK.
- CONTRACTOR TO REMOVE VEGETATION, IMPROVEMENTS, OR OBSTRUCTIONS INTERFERING WITH INSTALLATION OF NEW CONSTRUCTION.
- DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED OR IN USE WITHOUT PRIOR WRITTEN APPROVAL FROM ARCHITECT. CONTRACTOR TO ENSURE TEMPORARY UTILITY SERVICES ARE OPERATIONAL BEFORE INTERRUPTION OF EXISTING SERVICES.
- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL BE FAMILIAR WITH CONTRACT DOCUMENTS, SPECIFICATIONS, CONSTRUCTION PLANS, ALL NOTES, CITY OF ROCKWALL STANDARDS, AND ANY OTHER SPECIFICATIONS APPLICABLE TO THE PROPER COMPLETION OF THIS PROJECT.
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION, PRIOR TO ANY DEMOLITION OR CONSTRUCTION, ALL NECESSARY PERMITS AND LICENSES. CONTRACTOR SHALL HAVE AT LEAST ONE SET OF APPROVED ENGINEERING PLANS AND SPECIFICATIONS ON SITE AT ALL TIMES.
- ALL WORK SHALL CONFORM TO CITY OF ROCKWALL SPECIFICATIONS, STANDARDS, AND DETAILS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING EXISTING UTILITIES AND IMPROVEMENTS PRIOR TO CONSTRUCTION.
- BARRICADING, TRAFFIC CONTROL, AND PROJECT SIGNS SHALL CONFORM TO "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", AS CORRECTLY AMENDED, AND CITY OF ROCKWALL STANDARDS.
- ALL DEMOLITION AND EXCAVATED MATERIALS SHALL BE LEGALLY DISPOSED OF OFF SITE BY THE CONTRACTOR. TOP SOIL SHALL BE STOCK PILED AT THE SITE FOR USE IN LANDSCAPED AREAS.
- CONTRACTOR TO COORDINATE W/ALL FRANCHISE & CITY UTILITY COMPANIES PRIOR TO REMOVAL OF ANY EXISTING FACILITIES.
- ALL PAVEMENT REMOVAL ADJACENT TO EX. PAVEMENT TO BE REMOVED BY FULL DEPTH SAWCUT.
- PRIOR TO BID THE CONTRACTOR SHALL VISIT THE SITE & BE RESPONSIBLE FOR REMOVAL OF ALL EXISTING FACILITIES, TREES AND UTILITIES LOCATED WITHIN PROJECT.

DEMOLITION PLAN

ALDI FOOD MARKET

LOT 1, BLOCK A - RIDGE/SUMMER LEE ADDITION

THE CITY OF ROCKWALL, TEXAS

BURGER
ENGINEERING

17103 Preston Road, Suite 1800
Dallas, Texas 75248
Office: 972.630.3360 Fax: 972.630.3380
TBPE F-12997

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
BMB	JAC	6/16	1"=30'	D.P.	007-116 DEMO	C-3

CITY OF ROCKWALL BENCH MARKS

GPS CONTROL MONUMENT #R014, NAD83:
NORTHING= 7007583.687
EASTING= 2589828.481
ELEVATION= 581.017'

GPS CONTROL MONUMENT #RESET 1, NAD83:
NORTHING= 7011544.252
EASTING= 2590135.160
ELEVATION= 567.704'

ENGINEER:

BURGER ENGINEERING, LLC
17103 PRESTON ROAD, SUITE 1800
DALLAS, TEXAS 75248
(972) 630-3360
CONTACT: BRYAN M. BURGER, P.E.

APPLICANT:

ALDI, INC.
2500 WESTCOURT ROAD
DENTON, TEXAS 76207
(940) 220-5400
CONTACT: CHRIS WARWICK

As-Built: 6.22.17

THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED BY
BRYAN M. BURGER, P.E. 90880
ON 11-17-16



PETER TEMUNOVIC AND
CIVILIA TEMUNOVIC
VOL. 959, PG. 150
R.P.R.C.T.
(VACANT)

SUMMER LEE DRIVE

(65' RIGHT-OF-WAY)

~ CURVE TABLE ~					
NO.	RADIUS	DELTA	ARC	CH. BEARING	CHORD
C1	754.00'	13°04'52"	172.14'	N 08°45'08" W	171.77'
C2	3780.17'	00°48'02"	52.81'	N 06°26'25" E	52.81'
C3	1447.50'	09°36'24"	242.70'	S 77°01'39" E	242.42'
C4	1375.50'	02°49'51"	87.96'	S 70°48'31" E	87.96'

LOT 1, BLOCK A - SITE DATA	
SITE AREA:	2,575.7 AC. (112,197 S.F.)
ZONING DISTRICT:	GENERAL RETAIL (GR)
PROPOSED USE:	GROCERY STORE
EX. BUILDING AREA:	15,945 S.F.
PROP. BUILDING EXPANSION:	2,472 S.F.
TOTAL NEW BUILDING AREA:	18,417 S.F.
BUILDING HEIGHT:	28' (SINGLE STORY)
PARKING:	
REQUIRED: 1 SPACE/250 SF OF BUILDING AREA	74
PROVIDED:	74 (3 H.C.)
OFF-STREET LOADING:	
REQUIRED:	1
PROVIDED:	1
LANDSCAPE AREA:	
REQUIRED:	16,830 S.F. (15%)
PROVIDED:	45,629 S.F. (40.67%)
IMPERVIOUS AREA:	66,568 S.F. (59.33%)

PROJECT NOTES.

- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- TOPOGRAPHIC BOUNDARY SURVEY, INCLUDING PROPERTY LINE, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS WAS PROVIDED BY:
BLUE SKY SURVEYING & MAPPING, CORPORATION
11015 MIDWAY ROAD
DALLAS, TEXAS 75229
(214) 358-4500
- REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS, SIDEWALK & RAMPING BETWEEN CURB & BUILDING.
- ALL RADII ARE 2' UNLESS OTHERWISE NOTED.
- COORDINATE & CONFIRM ALL BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
- REFERENCE FINAL PLAT FOR ALL PROPERTY LINE INFORMATION.
- NO TREES TO BE PLANTED WITHIN 5' OF ANY UTILITIES.

LAYOUT NOTES

- | | | | |
|----|---|----|--|
| 1 | PAINTED HANDICAP PARKING SYMBOL | 20 | EX. FIRE LANE STRIPING |
| 2 | PARKING STALLS / 4" PAINTED STRIPE (YELLOW - 2 COATS) | 21 | MATCH EX. FIRE LANE STRIPE |
| 3 | DIRECTIONAL SIGNAGE | 22 | FIRE LANE STRIPING |
| 4 | INTEGRAL CONCRETE CURB | 23 | EX. STRIPING |
| 5 | TYPICAL BUILDING SIDEWALK (REF. ARCH. PLANS FOR DETAILS) | 24 | MATCH EX. CONCRETE PAVEMENT |
| 6 | TURN DOWN CURB | 25 | EX. PAINTED STRIPE |
| 7 | STRIPING | 26 | MATCH EX. STRIPING |
| 8 | STRIPING W/ "NO PARKING" WORDS | 27 | PROP. CANOPY (REF. ARCH. PLANS FOR DETAILS) |
| 9 | CONCRETE PAVEMENT | 28 | PROP. PIPE BOLLARD (REF. ARCH. PLANS FOR DETAILS) |
| 10 | EX. PAD MOUNTED TRANSFORMER | 29 | PROP. F.D.C. LOCATION |
| 11 | DUMPSTER / STORAGE AREA W/SCREENING | 30 | END CURB @ BUILDING (NOT USED) |
| 12 | EX. MONUMENT SIGN | 31 | PROP. CART STORAGE AREA (REF. ARCH. PLANS FOR DETAILS) |
| 13 | EX. PYLON SIGN (NOT USED) | 32 | EX. TREE TO REMAIN |
| 14 | MATCH LOCATION & ELEVATION OF EX. CONCRETE CURB | 33 | RADIUS PROTECTION (NOT USED) |
| 15 | MATCH EX. CONCRETE SIDEWALK | 34 | EX. RADIUS PROTECTION / CONC. STEP OUT |
| 16 | EX. DIRECTIONAL SIGNAGE | 35 | 1' CURB OPENING (NOT USED) |
| 17 | EX. GAS METER | 36 | CURB TURN DOWN (NOT USED) |
| 18 | ADJUST EX. LANDSCAPING & IRRIGATION (REF. LANDSCAPE PLAN) | 37 | EX. INLET |
| 19 | EX. PIPE BOLLARD | 38 | EX. LIGHT POLE |
| | | 39 | RELOCATED OAK TREE |
| | | 40 | CURBED RAMP "A" FLARED SIDES
"B" SHORT FLARED SIDES |

As-Built: 6-22-17

THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED BY
BRYAN M. BURGER, P.E. 90880
ON 11-17-16



ENGINEER:

BURGER ENGINEERING, LLC
17103 PRESTON ROAD, SUITE 180N
DALLAS, TEXAS 75248
(972) 630-3360
CONTACT: BRYAN M. BURGER, P.E.

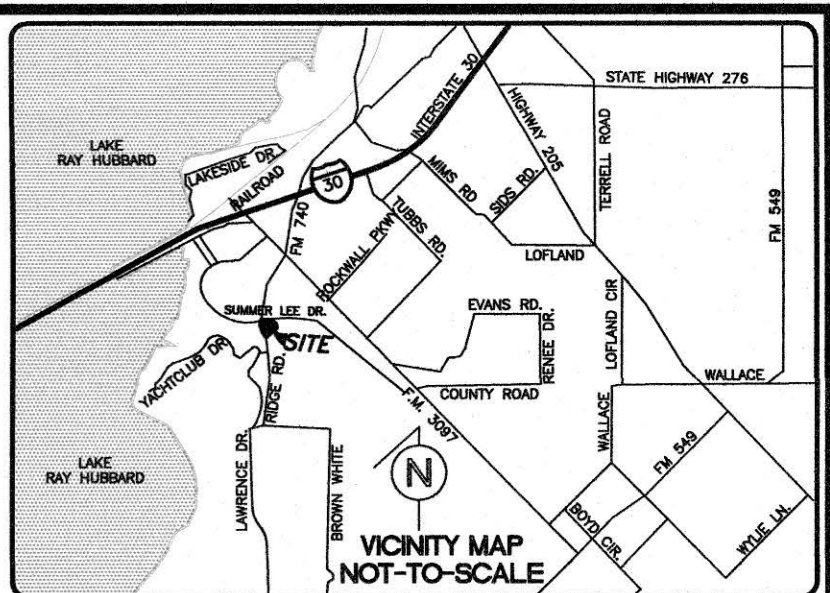
APPLICANT:

ALDI, INC.
2500 WESTCOURT ROAD
DENTON, TEXAS 76207
(940) 220-5400
CONTACT: CHRIS WARWICK

CITY OF ROCKWALL BENCH MARKS

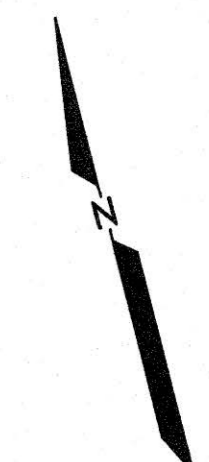
GPS CONTROL MONUMENT #R014, NAD83:
NORTHING= 7007583.687
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ELEVATION= 581.017'

GPS CONTROL MONUMENT #RESET 1, NAD83:
NORTHING= 7011544.252
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LEGEND

- F.H. FIRE HYDRANT
- CHISELED "X" SET
- CHISELED "X" FOUND
- IRON ROD FOUND (SIZE AS NOTED)
- IRON ROD SET (SIZE AS NOTED)
- OVERHEAD UTILITY POLE W/ GUY
- UNDERGROUND ELECTRIC OR TELEPHONE
- L.P. LIGHT POLE
- SSMH SANITARY SEWER MANHOLE
- SAN. SWR. CLEAN OUT
- G.V. GAS VALVE
- W.V. WATER VALVE
- TREE
- LS LANDSCAPE



0 15' 30' 60'
1"=30'



REV	DATE	REMARKS
SITE PLAN		
ALDI FOOD MARKET		
LOT 1, BLOCK A - RIDGE/SUMMER LEE ADDITION		
THE CITY OF ROCKWALL, TEXAS		
Burger Engineering, Inc. 17103 Preston Road, Suite 180N Dallas, Texas 75248 Office: 972.630.3360 Fax: 972.630.3380 TBPE F-12997		
DESIGN	DRAWN	DATE
BMB	JAC	6/16
SCALE	NOTES	FILE
1"=30'	D.P.	007-116 SITE PLAN
NO.		
C-4		

PETER TEMUNOVIC AND
CVIJETA TEMUNOVIC
VOL. 959, PG. 150
R.P.R.R.C.T.
(VACANT)

SUMMER LEE DRIVE

LOT 2, BLOCK 1
RIDGE/SUMMER LEE ADDITION
CAB. H, PG. 231
P.R.R.C.T.

LOT A
REPLAT OF
COMMUNITY BANK OF
ROCKWALL ADDITION
CAB. D, PG. 133
P.R.R.C.T.

LOT B-2-A
REPLAT OF
COMMUNITY BANK
OF ROCKWALL ADDITION
CAB. D, PG. 279
P.R.R.C.T.



VERSION 4.0 PROTOTYP
MODIFIED
F.F. = ± 570.08

REFER TO ARCHITECT PLANS FOR EXACT BUILDING
DIMENSIONS. TRUCK DOCK & SIDEWALK DETAILS

LOT 2-RA
BUFFALO CREEK SHOPPING VILLAGE NO. 2
CABINET C, SLIDE 385
P.R.R.C.T.

EX. DAYCARE CENTER

LOT 1-RA
BUFFALO CREEK SHOPPING VILLAGE NO. 2
CABINET C, SLIDE 385
P.R.R.C.T.
EX. RETAIL CENTER

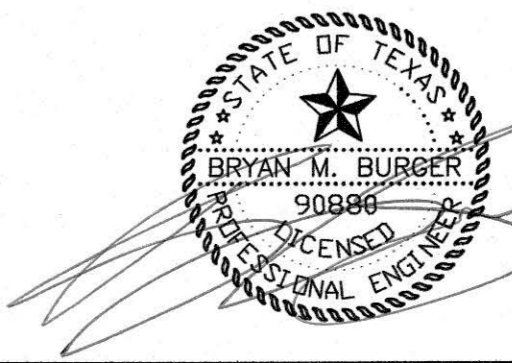
20' ALLEY

CITY OF ROCKWALL BENCH MARKS

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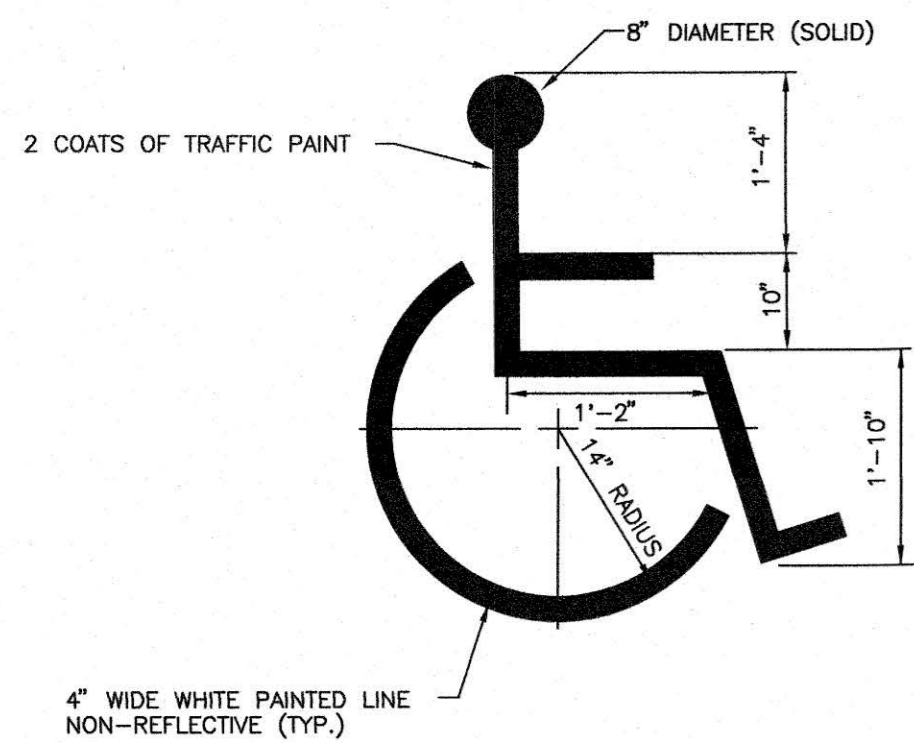
THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED BY
BRYAN M. BURGER, P.E. 90880
ON 11-17-16



As-Built: 6.22.17

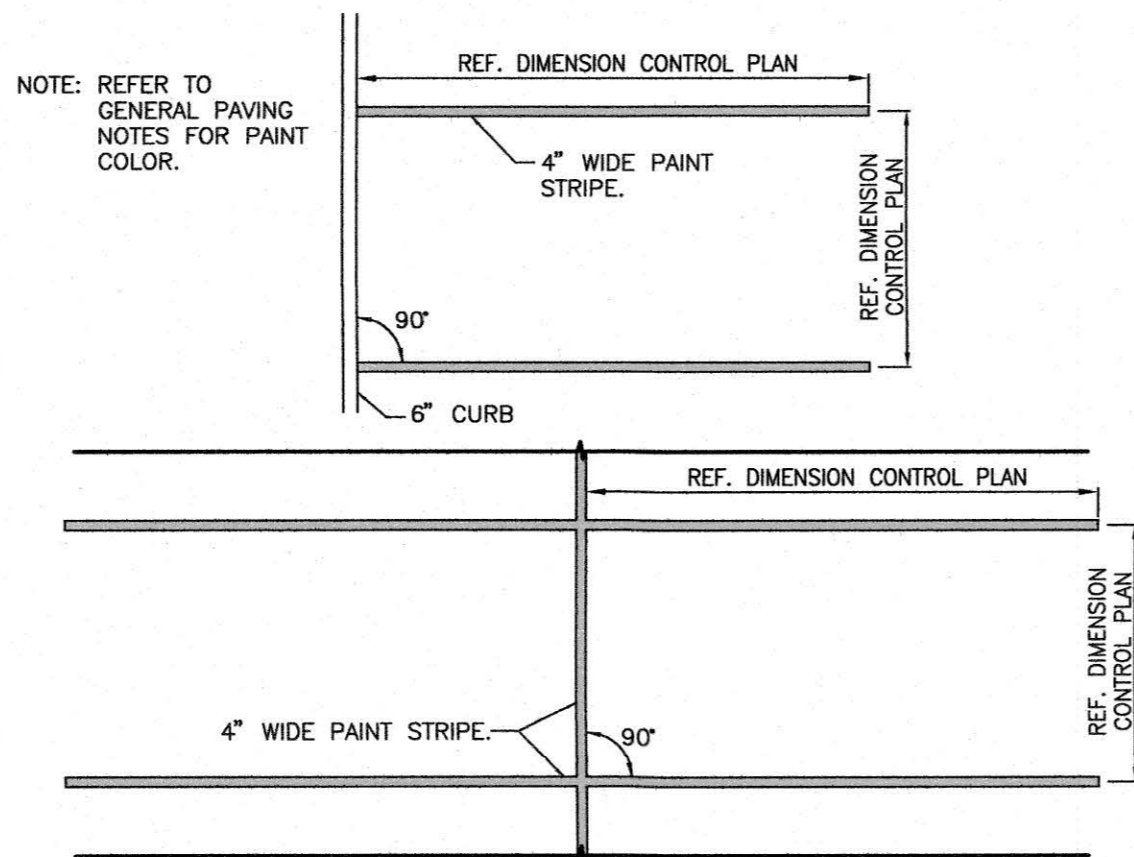


REV	DATE	REMARKS								
PAVING PLAN										
ALDI FOOD MARKET										
LOT 1, BLOCK A – RIDGE/SUMMER LEE ADDITION										
THE CITY OF ROCKWALL, TEXAS										
B	BURGER ENGINEERING					17103 Preston Road, Suite 180N Dallas, Texas 75248 Office: 972.630.3360 Fax: 972.630.3380 TBPE F-12097				
Civil Consultants										
DESIGN	DRAWN	DATE	SCALE	NOTES		FILE	NO.			
BMB	JAC	6/16	1"=30'	D.P.		007--116 PAVING	C—5			



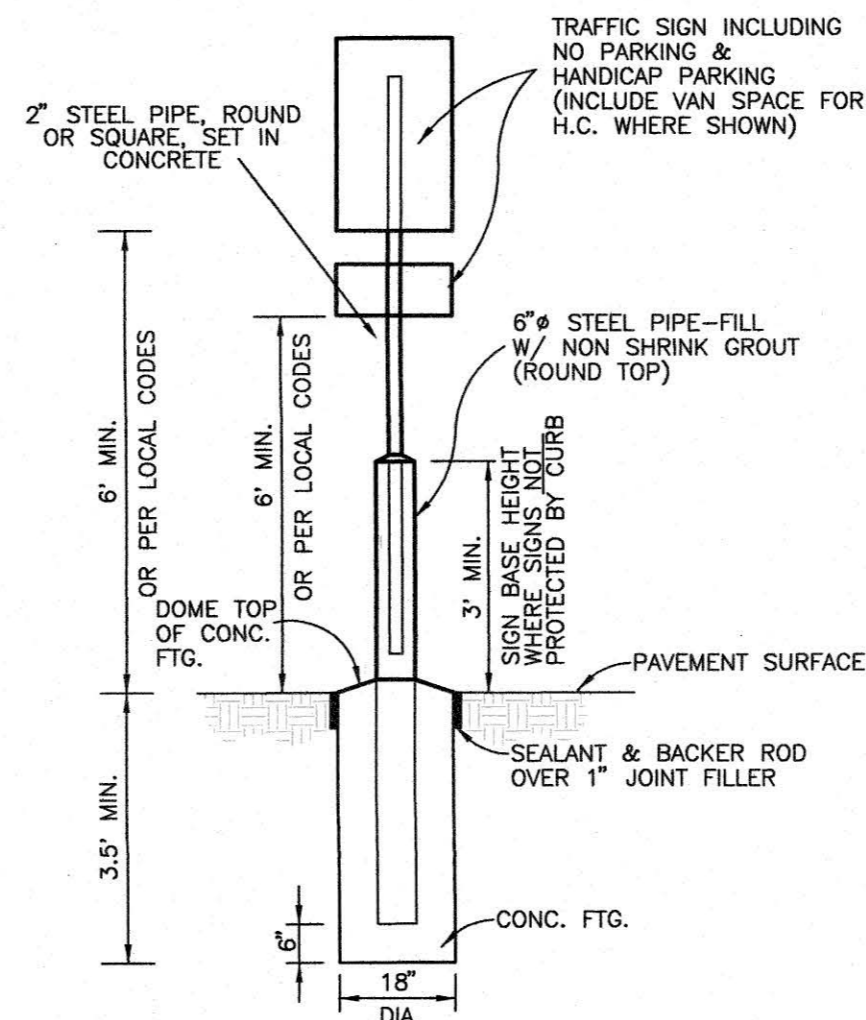
0.1 ACCESSIBLE PARKING SYMBOL

N.T.S.



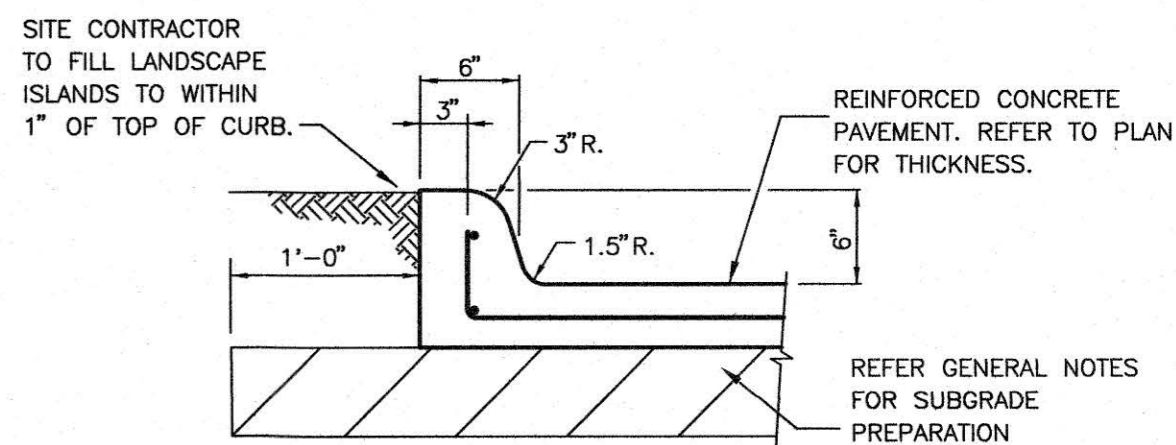
0.2 PARKING STALL STRIPING

N.T.S.



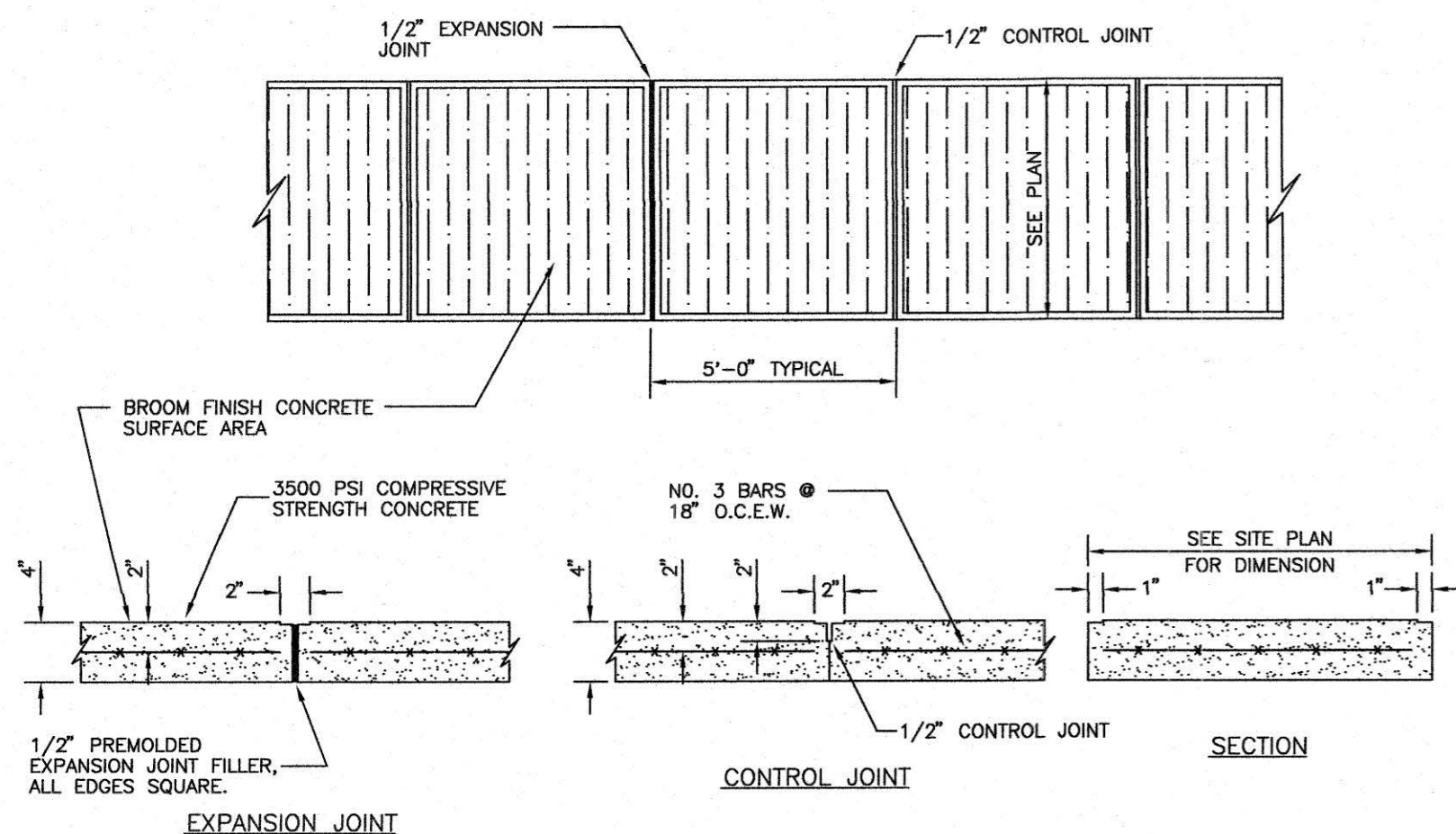
0.3 HANDICAP SIGNAGE DETAIL

N.T.S.



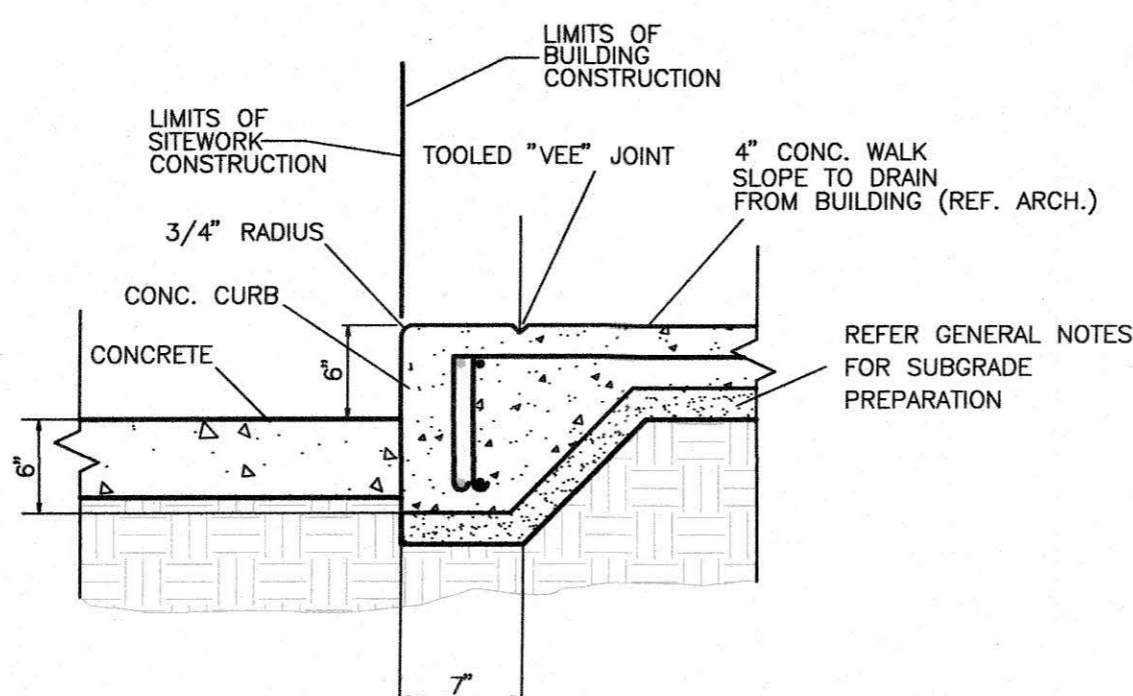
0.4 INTEGRAL CURB DETAIL

N.T.S.



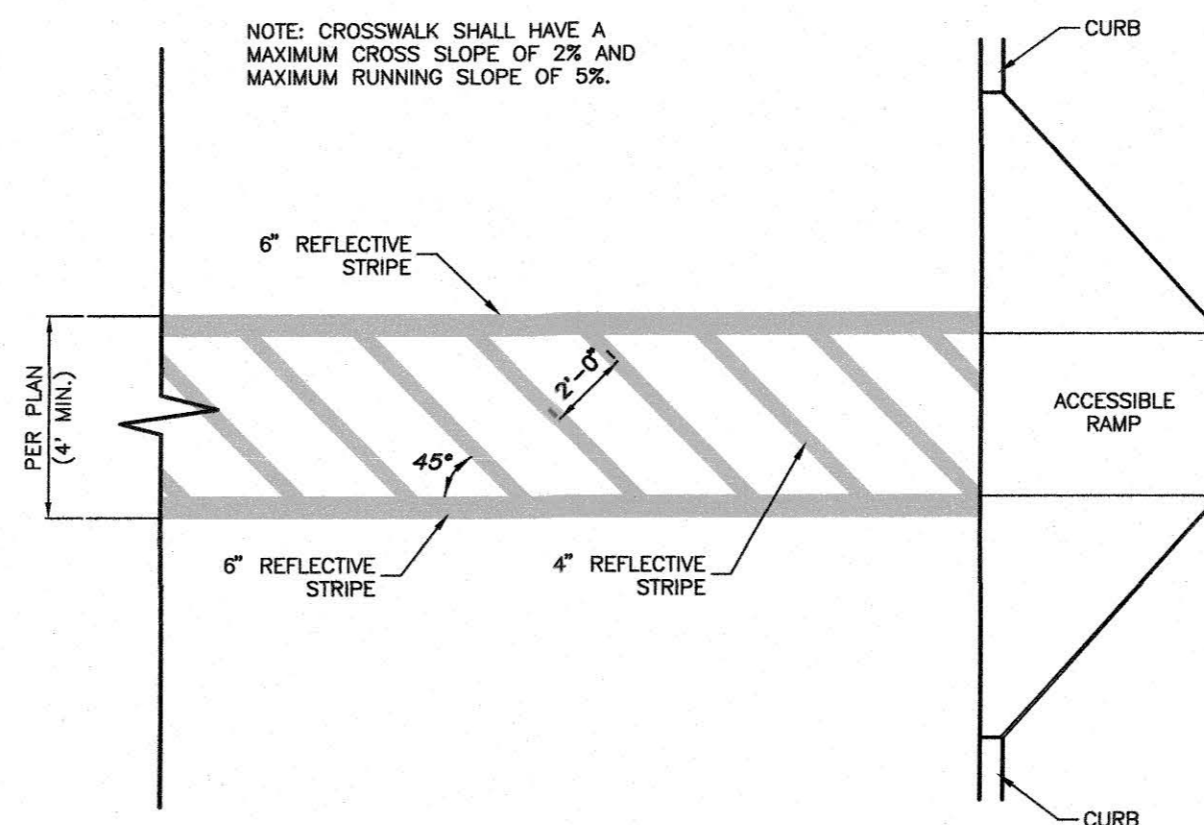
0.5 TYPICAL CONCRETE SIDEWALK

N.T.S.



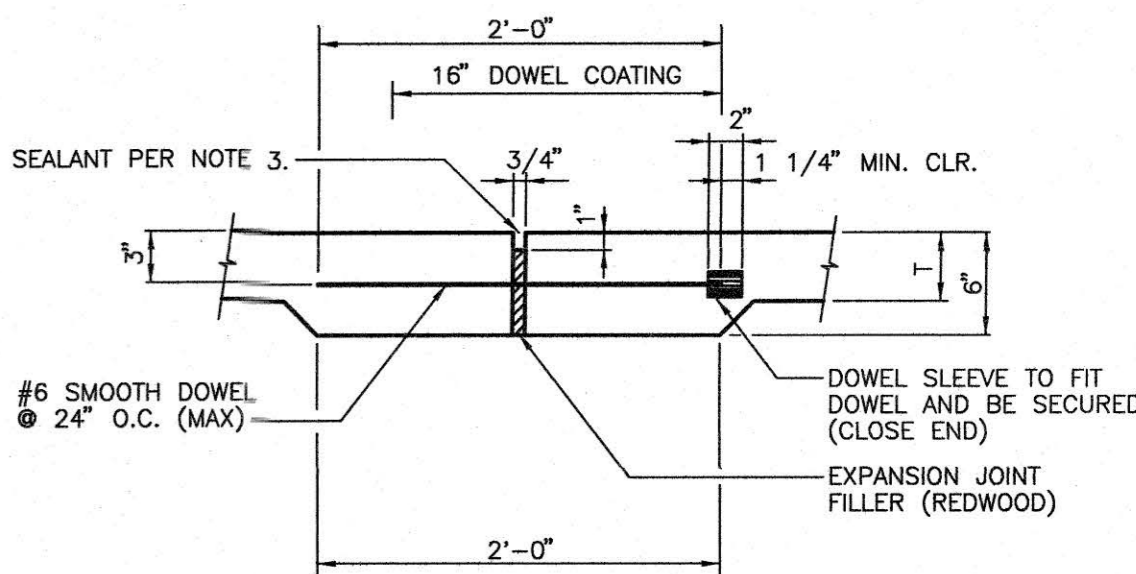
0.6 TURN DOWN CURB DETAIL

N.T.S.



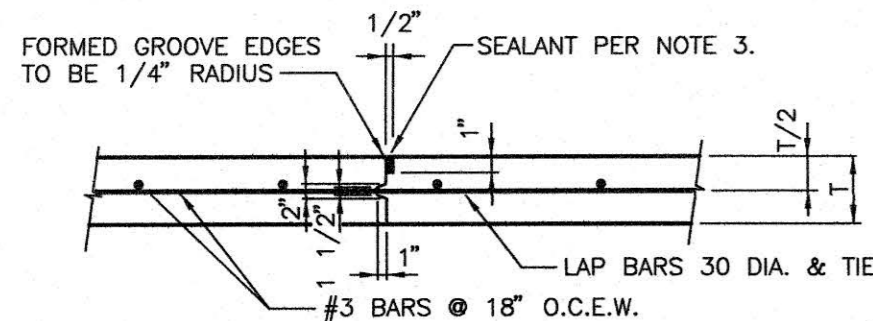
0.7 ACCESSIBLE CROSSWALK

N.T.S.



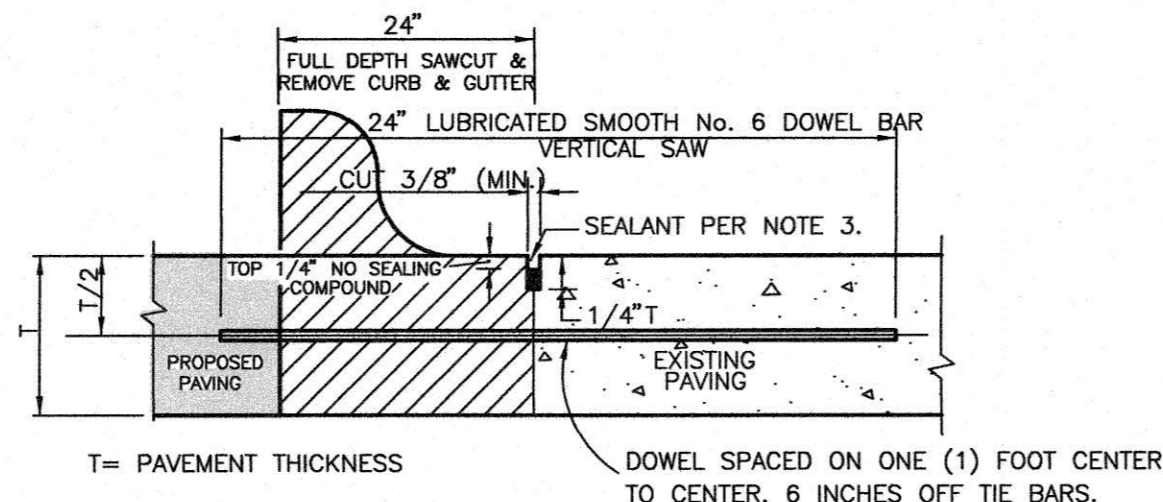
0.9 EXPANSION JOINT

N.T.S.



0.10 CONSTRUCTION JOINT

N.T.S.

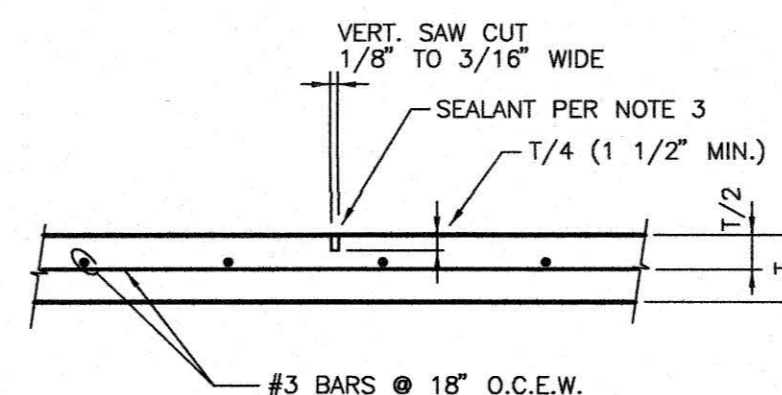


NOTES:

1. NO.5 SMOOTH DOWEL BAR MAY BE USED IN 5 INCH AND 6 INCH PAVEMENT THICKNESS.
2. LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
3. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.
4. DRILLING BY HAND IS NOT ACCEPTABLE, PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.

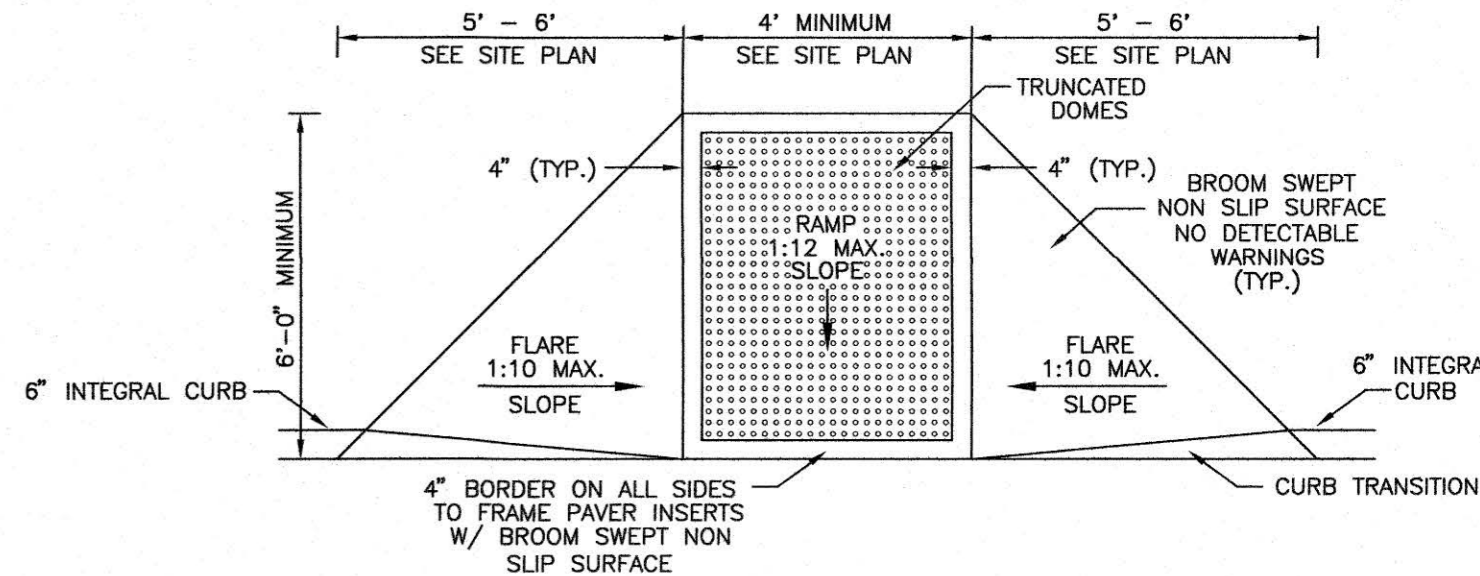
0.11 LONGITUDINAL BUTT JOINT

N.T.S.



0.12 CONTROL JOINT

N.T.S.



0.40A ACCESSIBLE RECESSED FLARE RAMP

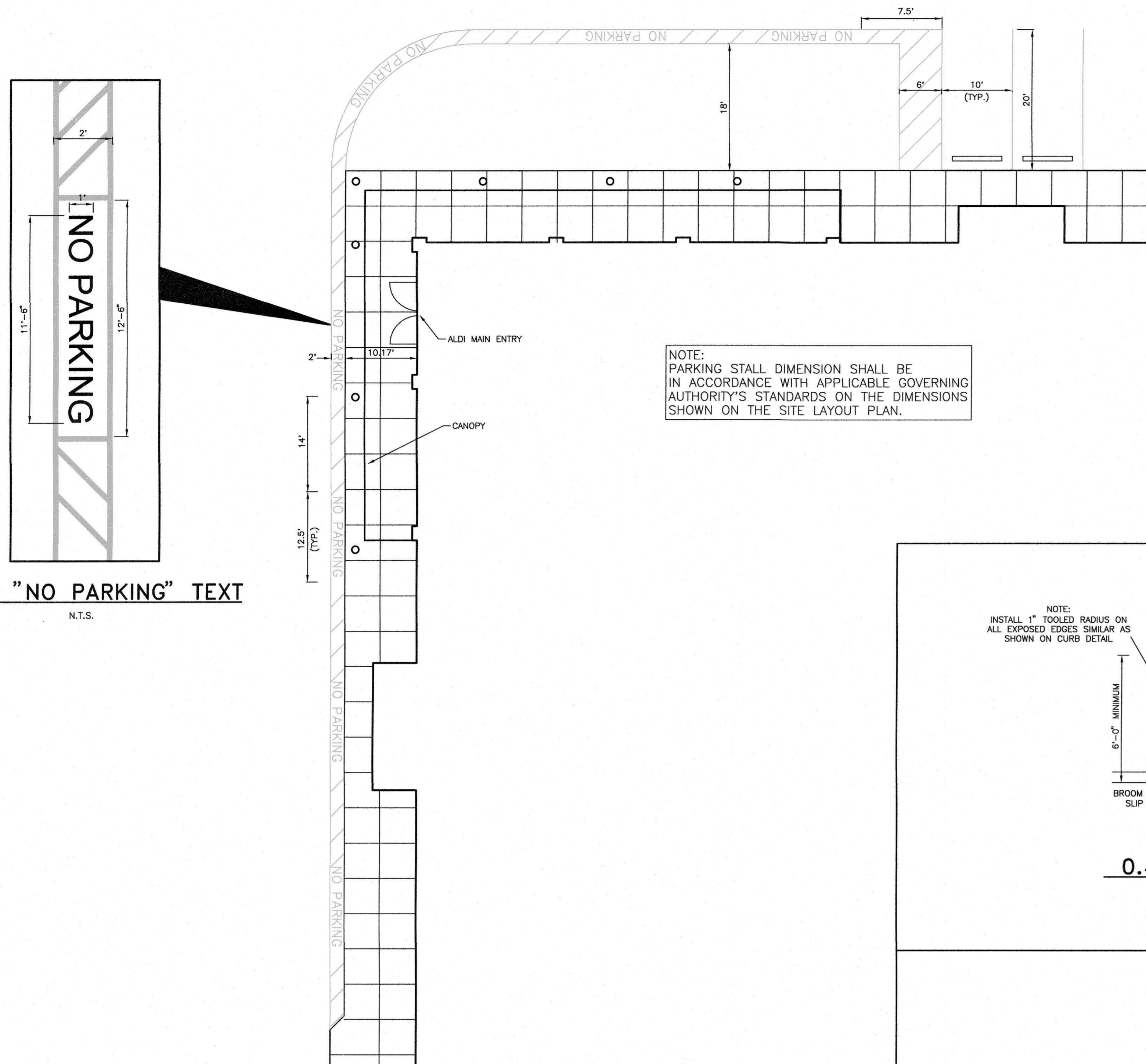
N.T.S.

As-Built: 6-22-17

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
BRYAN M. BURGER, P.E. 90880
ON 10-21-16

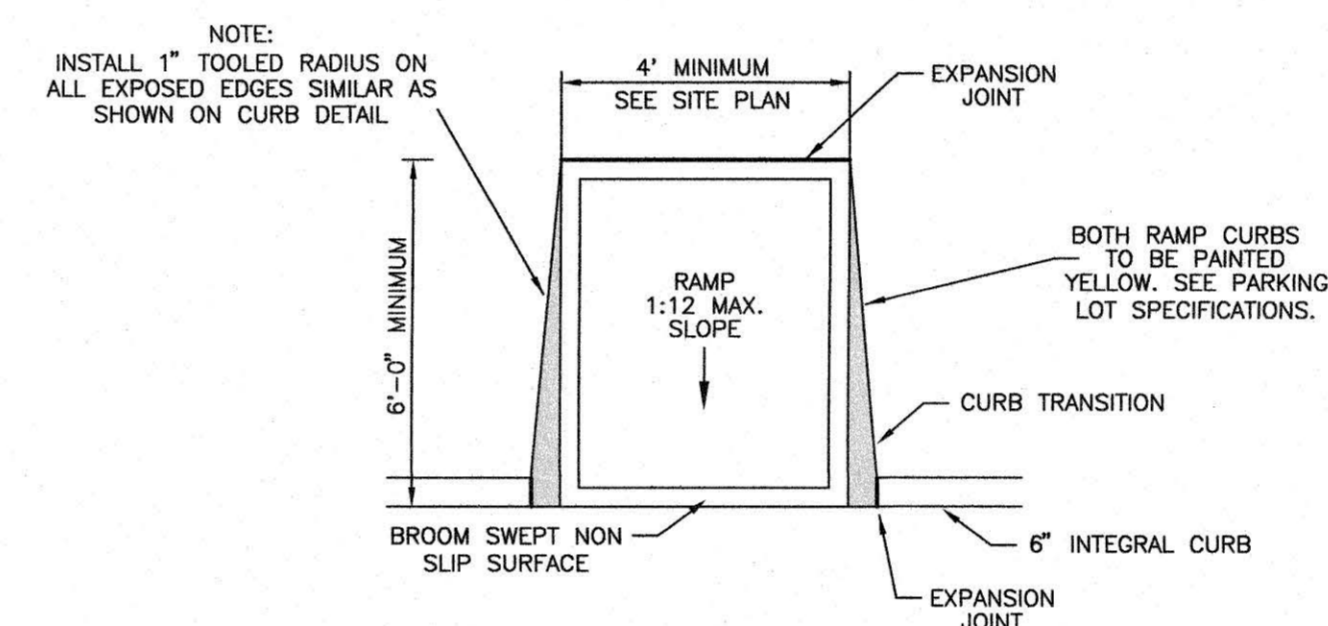


REV	DATE	REMARKS
ON-SITE PAVING DETAILS		
ALDI FOOD MARKET		
LOT 1, BLOCK A – RIDGE/SUMMER LEE ADDITION		
THE CITY OF ROCKWALL, TEXAS		
B BURGER ENGINEERING		17103 Preston Road, Suite 180N Dallas, Texas 75248 Office: 972.630.3360 Fax: 972.630.3380 TBPPE P-12997
DESIGN	DRAWN	DATE
BMB	JAC	6/16
SCALE	NOTES	FILE
	D.P.	007-116 PAVING DETAILS
NO.	C-5.1	



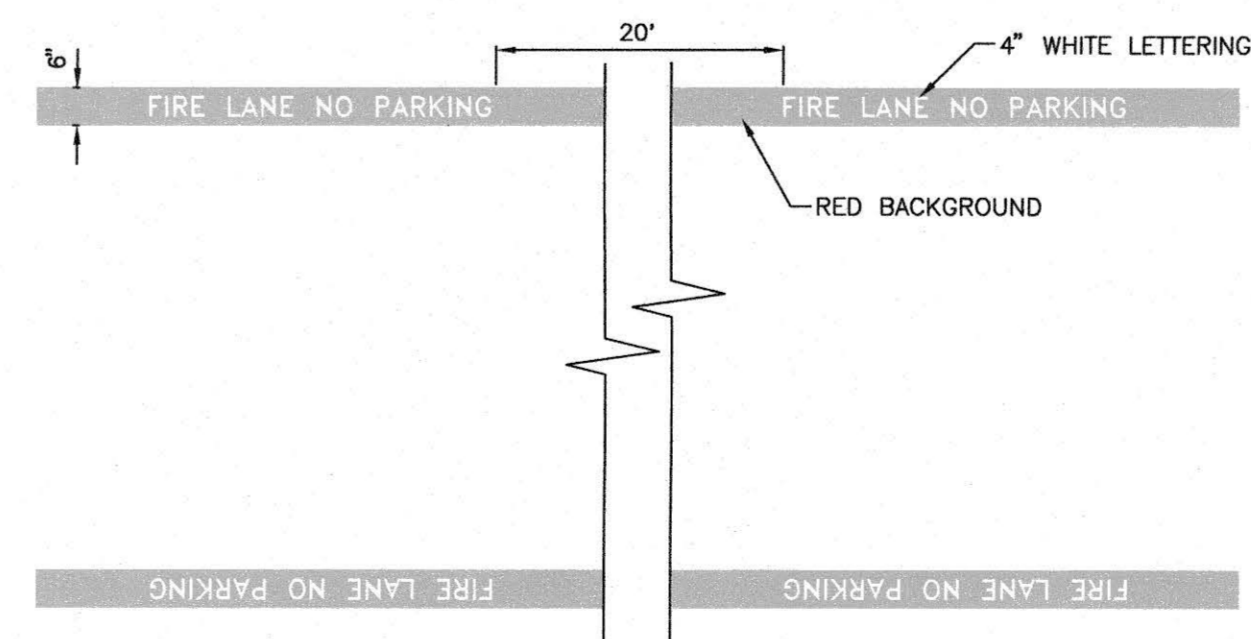
INSERT "NO PARKING" TEXT
N.T.S.

0.8 ACCESSIBLE / NO PARKING DETAIL
N.T.S.

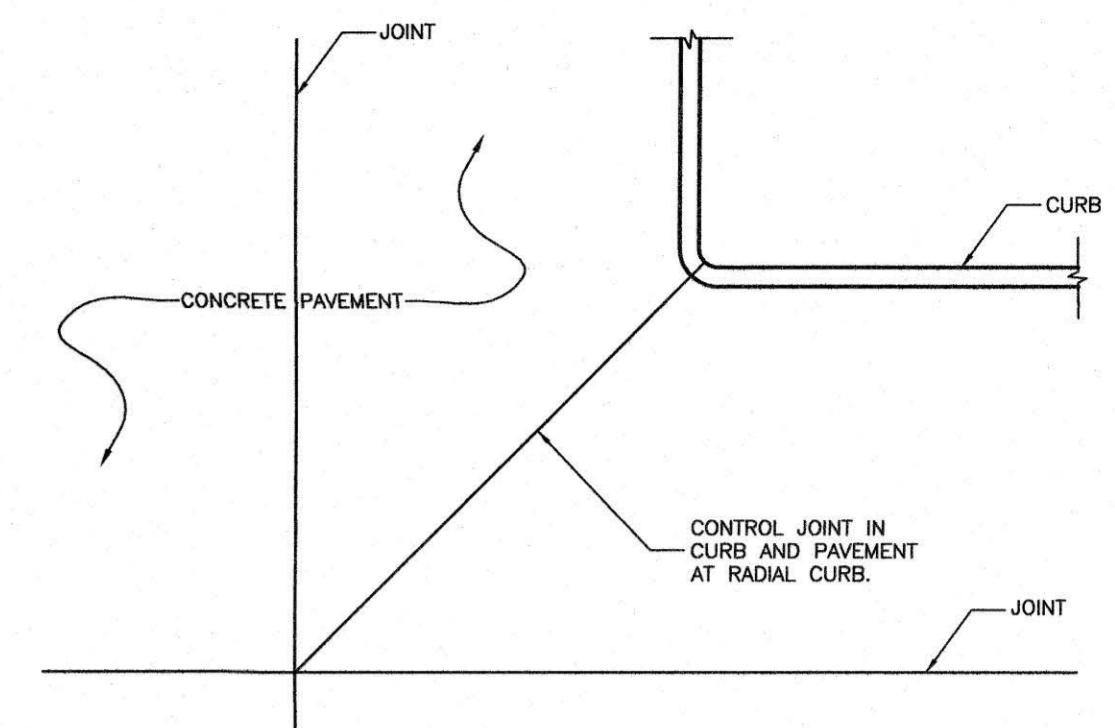


0.40B CURBED RAMP
N.T.S.

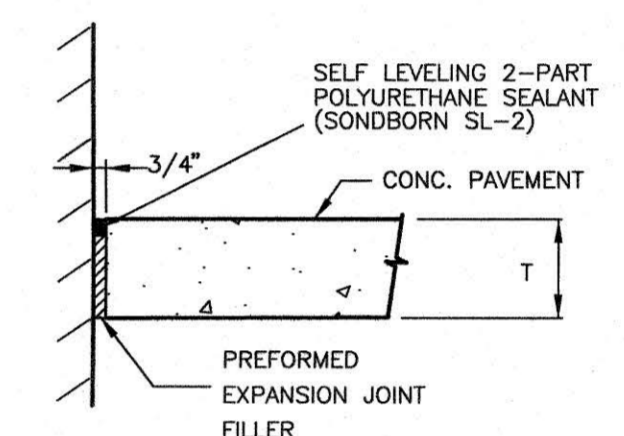
FIRE LANES SHALL BE MARKED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY. IF REQUIREMENTS ARE NOT AVAILABLE FROM THE LOCAL AUTHORITY, FIRE LANES SHALL BE MARKED BY PAINTED LINES OF RED TRAFFIC PAINT SIX INCHES(6") IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE. THE WORDS "NO PARKING FIRE LANE" OR "FIRE LANE NO PARKING" SHALL APPEAR IN FOUR INCH(4") WHITE LETTERS AT 20 FEET INTERVALS ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANES. WHERE A CURB IS AVAILABLE, THE STRIPING SHALL BE ON THE VERTICAL FACE OF THE CURB.



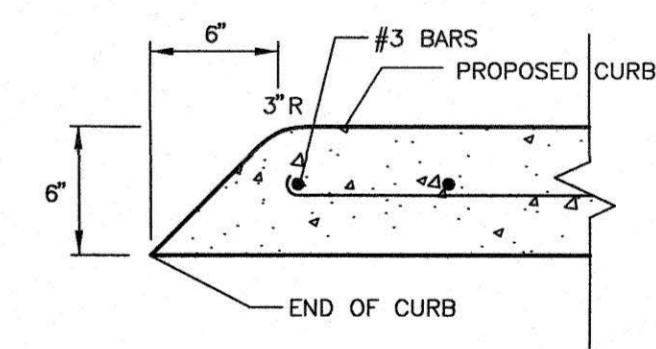
0.22 FIRE LANE MARKING
N.T.S.



0.13 JOINT AT RADIAL CURB
N.T.S.



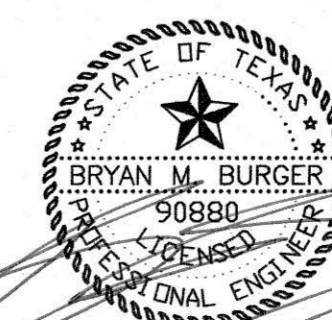
0.14 JOINT @ BUILDING
N.T.S.



0.36 CURB TURN DOWN DETAIL
N.T.S.

As-Built: 6-22-17

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY BRYAN M. BURGER, P.E. 90880 ON 10-21-16



REV	DATE	REMARKS				
ON-SITE PAVING DETAILS						
ALDI FOOD MARKET						
LOT 1, BLOCK A – RIDGE/SUMMER LEE ADDITION						
THE CITY OF ROCKWALL, TEXAS						
B	BURGER ENGINEERING		17103 Preston Road, Suite 180N Dallas, Texas 75248 Office: 972.630.3360 Fax: 972.630.3380 TBPPE F-12997			
	Civil Consultants					
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
BMB	JAC	6/16		D.P.	007-116 PAVING DETAILS	C-5.2

PETER TEMUNOVIC AN
CVIJETA TEMUNOVIC
VOL. 959, PG. 150
R.P.R.R.C.T.
(VACANT)

SUMMER LEE DRIVE

LOT 2, BLOCK 1
RIDGE/SUMMER LEE ADDITION
CAB. H, PG. 231
P.R.R.C.T.

LOT A
REPLAT OF
COMMUNITY BANK OF
ROCKWALL ADDITION
CAB. D, PG. 133
P.B.R.C.T.

CONTRACTOR TO ENSURE GRADE
IN ACCESSIBLE AREA NOT TO
EXCEED 2% IN ANY DIRECTION



VERSION 4.0 PROTOTYP
MODIFIED
F.F. = ± 570.08

LOT 2-RA
BUFFALO CREEK SHOPPING VILLAGE NO. 2
CABINET C, SLIDE 385
P.R.R.C.T.

EX. DAYCARE CENTER

LOT 1-RA
BUFFALO CREEK SHOPPING VILLAGE NO.
CABINET C, SLIDE 385
P.R.R.C.T.
EX. RETAIL CENTER

20' ALLEY

CITY OF ROCKWALL BENCH MARKS

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LEGEND

- F.H. FIRE HYDRANT
- X SET CHISELED "X" SET
- F.X. CHISELED "X" FOUND
- F.I.R. IRON ROD FOUND (SIZE AS NOTED)
- S.I.R. IRON ROD SET (SIZE AS NOTED)
- PP OVERHEAD UTILITY POLE W/ GUY
- UE UNDERGROUND ELECTRIC OR TELEPHONE
- L.P. LIGHT POLE
- ⊗ SSMH SANITARY SEWER MANHOLE
- C.O. SAN. SWR. CLEAN OUT
- G.V. GAS VALVE
- W.V. WATER VALVE
- ①2 TREE

EXIST. CONTOUR

• PROP. CONTOUR

78.30 PROP. SPOT ELEV.

79.67 TC	PROP. TOP OF CURB
79.17 G	& GUTTER ELEVATION

ALDI BUILDING PAD LIMITS

GENERAL NOTES

1. CONTRACTOR SHALL REMOVE & STOCK PILE TOPSOIL (4" TO 6" TYP.) PRIOR TO SITE EXCAVATION OR FILL PLACEMENT.
2. ALL AREAS TO RECEIVE FILL SHALL FIRST BE SCARIFIED TO A DEPTH OF 6 INCHES AND RECOMPACTED TO THE CRITERIA STATED IN THE GEOTECHNICAL REPORT PREPARED BY TERRACON CONSULTANTS, INC. (REPORT NO. 94125015 DATED FEBRUARY 10, 2012)
3. FILL SHALL BE PLACED IN MAXIMUM 8" LOOSE LIFTS.
4. FILL SHALL BE COMPACTED TO THE CRITERIA STATED IN THE GEOTECHNICAL REPORT PREPARED BY TERRACON CONSULTANTS, INC. (REPORT NO. 94125015 DATED FEBRUARY 10, 2012).
5. ALL COMPACTION TO BE MONITORED BY OWNER SUPPLIED GEOTECHNICAL CONSULTANT.
6. REF. GEOTECHNICAL REPORT PREPARED BY TERRACON CONSULTANTS, INC. DATED FEBRUARY 10, 2012 FOR ADDITIONAL EARTHWORK REQUIREMENTS.
7. REF. EROSION CONTROL PLAN FOR SILT FENCE, INLET PROTECTION & STABILIZED CONSTRUCTION ENTRANCE LOCATIONS.
8. ALL FILL TO BE COMPACTED TO A MINIMUM 95% STANDARD DENSITY USING A SHEEP'S FOOT ROLLER.

PAD PREPARATION NOTES:

For additional pad preparation notes & earthwork operations reference Terracon Consultants Inc. Geotechnical Report – (Project No. 94125015) Dated February 10, 2012

1' SELECT FILL OR FLEX BASE CAP PER TERRACON REPORT.

FINISHED PAD ELEVATION 569.16

COMPACTED FILL PER TERRACON REPORT

LIMITS OF PAD PER TERRACON REPORT

10' MOISTURE CONDITIONED SOIL PER TERRACON REPORT

EXISTING GROUND LINE

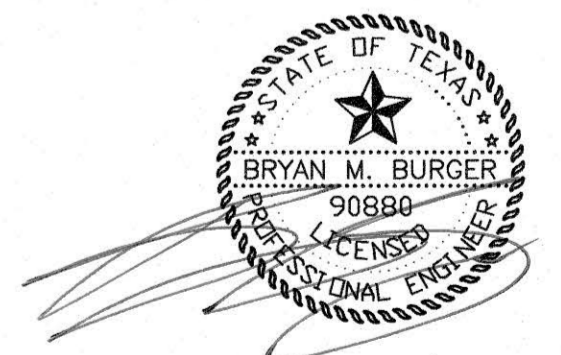
ELEVATION 11' BELOW FINISHED PAD

LIMITS OF EXCAVATION

ALDI PAD PREPARATION SECTION

NOT INSPECTED BY THE ENGINEERING DEPARTMENT

THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED BY
BRYAN M. BURGER, P.E. 90880
ON 10-21-76



As-Built: 6.77.17

REV	DATE	REMARKS																			
<div><div><div><div><div><div></div><div>B</div><div></div></div><div><div>BURGER</div><div>ENGINEERING</div><div>Civil Consultants</div></div></div><div><div>17103 Preston Road, Suite 180N</div><div>Dallas, Texas 75248</div><div>Office: 972.630.3360 Fax: 972.630.3380</div><div>TBPE F-12997</div></div></div></div><table><tr><th>DESIGN</th><th>DRAWN</th><th>DATE</th><th>SCALE</th><th>NOTES</th><th>FILE</th><th>No.</th></tr><tr><td>BMB</td><td>JAC</td><td>6/16</td><td>1"=30'</td><td>D.P.</td><td>007--116 GRADING</td><td>C-6</td></tr></table></div>								DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	No.	BMB	JAC	6/16	1"=30'	D.P.	007--116 GRADING	C-6
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CIVIETA TEMUNOVIC
VOL. 959, PG. 150
R.P.R.C.T.
(VACANT)

SUMMER LEE DRIVE

(65' RIGHT-OF-WAY)

LOT 2, BLOCK 1
RIDGE/SUMMER LEE ADDITION
CAB. H, PG. 231
P.R.R.C.T.

LOT A
REPLAT OF
COMMUNITY BANK OF
ROCKWALL ADDITION
CAB. D, PG. 133
P.R.R.C.T.

LOT B-2-A
REPLAT OF
COMMUNITY BANK
OF ROCKWALL ADDITION
CAB. D, PG. 279
P.R.R.C.T.

RIDGE ROAD (F.M. 740)

(VARIABLE WIDTH RIGHT-OF-WAY)



EXISTING
VERSION 4.0 PROTOTYPE
MODIFIED
F.F. = ±570.08

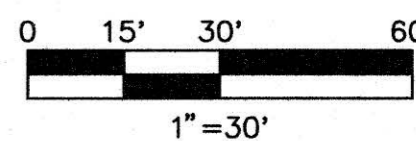
LOT 2-RA
BUFFALO CREEK SHOPPING VILLAGE NO. 2
CABINET C, SLIDE 385
P.R.R.C.T.

EX. DAYCARE CENTER

LOT 1-RA
BUFFALO CREEK SHOPPING VILLAGE NO. 2
CABINET C, SLIDE 385
P.R.R.C.T.
EX. RETAIL CENTER

20' ALLEY

- LEGEND
- F.H. FIRE HYDRANT
 - OX SET CHISELED "X" SET
 - OFX CHISELED "X" FOUND
 - OFJR IRON ROD FOUND (SIZE AS NOTED)
 - OSJR IRON ROD SET (SIZE AS NOTED)
 - PP OVERHEAD UTILITY POLE W/ GUY
 - UEBUT UNDERGROUND ELECTRIC OR TELEPHONE
 - LP LIGHT POLE
 - SSMH SANITARY SEWER MANHOLE
 - C.O. SAN. SWR. CLEAN OUT
 - G.V. GAS VALVE
 - W.V. WATER VALVE
 - TREE



DRAINAGE GENERAL NOTES

- ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO CITY STANDARD SPECIFICATIONS.
- THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. CONTRACTOR SHALL VERIFY THAT NECESSARY CROSSING CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION OF ANY SUCH CROSSING.
- CONTRACTOR SHALL COORDINATE WITH THE OWNER, ENGINEER, OR HIS REPRESENTATIVE AND CITY REPRESENTATIVE REGARDING ANY DEVIATIONS FROM THESE PLANS.
- CONTRACTOR SHALL MAINTAIN ONE SET OF RECORD DRAWINGS (AS BUILT) ON SITE WHICH WILL BE SUBMITTED TO THE ENGINEER UPON COMPLETION OF THIS PROJECT.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL PUBLIC UTILITIES IN THE CONSTRUCTION OF THIS PROJECT; ALL MANHOLES, CLEANOUTS, VALVE BOXES, FIRE HYDRANTS, SEWER LATERALS, WATER SERVICE, ETC.
- THE CONTRACTOR SHALL SET UTILITIES TO PROPER LINE AND GRADE PRIOR TO THE PLACING OF PERMANENT PAVEMENT.
- ALL STORM SEWER PIPE SHALL CONFORM TO CITY SPECIFICATIONS AND SHALL BE MANUFACTURED FROM ONE OF THE FOLLOWING MATERIALS:
 - a. CLASS III RCP UNLESS OTHERWISE NOTED Diameter 18"-60"
 - b. SDR 35 PVC Diameter 8"-15"
- ANY PIPE LOCATED WITHIN THE RIGHT-OF-WAY OR IN AN EASEMENT WILL BE RCP PIPE UNLESS OTHERWISE NOTED.
- ALL STORM PIPES ARE PRIVATE EXCEPT THOSE SHOWN IN CITY & STATE R.O.W.
- ALL RCP PIPE INSTALLATION SHALL CONFORM TO THE AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION MANUAL.
- RADIAL RCP PIPE IS REQUIRED FOR ALL CURVES. NO PULLED JOINTS ARE PERMITTED.

LAYOUT NOTES

- REMOVE EX. 8" PLUG & CONNECT TO EX. 8" PVC FL 8" PVC = 665.60 (VERIFY)
- INSTALL 8"x45" BEND
- 8" PVC @ 2.53%
- FL 8" PVC = 566.41
- F.D.C. LOCATION



NOTE:
THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES (WHETHER SHOWN ON PLANS OR NOT) PRIOR TO COMMENCING CONSTRUCTION. IF FIELD CONDITIONS DIFFER SIGNIFICANTLY FROM LOCATIONS SHOWN ON THE PLANS THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

As-Built: 6.22.17

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
BRYAN M. BURGER, P.E. 90880
ON 11-17-16



CITY OF ROCKWALL BENCH MARKS
GPS CONTROL MONUMENT #R014, NAD83:
NORTHING= 7007583.687
EASTING= 2589828.481
ELEVATION= 581.017'
GPS CONTROL MONUMENT #RESET 1, NAD83:
NORTHING= 7011544.252
EASTING= 2590135.160
ELEVATION= 587.704'

REV	DATE	REMARKS
UTILITY PLAN		
ALDI FOOD MARKET		
LOT 1, BLOCK A - RIDGE/SUMMER LEE ADDITION		
THE CITY OF ROCKWALL, TEXAS		
BURGER ENGINEERING		17103 Preston Road, Suite 180N Dallas, Texas 75248 Office: 972.630.3360 Fax: 972.630.3380 TBPPE F-12997
DESIGN	DRAWN	DATE
BMB	JAC	6/16
SCALE	NOTES	FILE
1"=30'	D.P.	007-116 UTILITY
NO.	C-7	

PETER TEMUNOVIC AND
CVIJETA TEMUNOVIC
VOL. 959, PG. 150
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(VACANT)

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RIDGE ROAD (F.M. 740)



EXISTING
VERSION 4.0 PROTOTYPE
MODIFIED
F.F. = ±570.08

REFER TO ARCHITECT PLANS FOR EXACT BUILDING
DIMENSIONS, TRUCK DOCK & SIDEWALK DETAILS

LOT 2-RA
BUFFALO CREEK SHOPPING VILLAGE NO. 2
CABINET C, SLIDE 385
P.R.R.C.T.

EX. DAYCARE CENTER

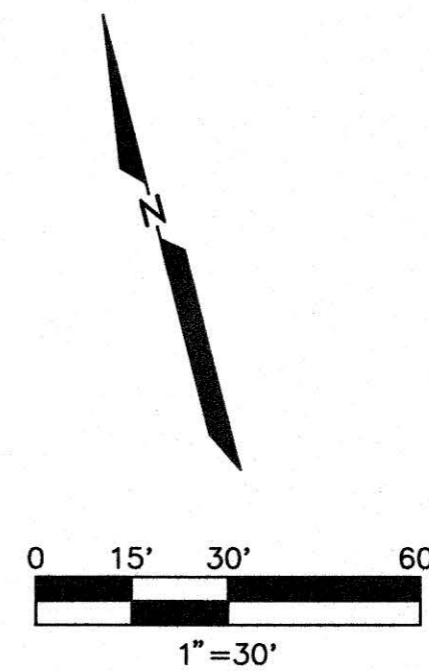
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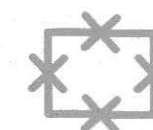


LEGEND

- F.H. FIRE HYDRANT
- X SET CHISELED "X" SET
- O.F.X. CHISELED "X" FOUND
- O.F.I.R. IRON ROD FOUND (SIZE AS NOTED)
- O.S.I.R. IRON ROD SET (SIZE AS NOTED)
- O.U.P. OVERHEAD UTILITY POLE W/ GUY
- U.E. UNDERGROUND ELECTRIC OR TELEPHONE
- L.P. LIGHT POLE
- S.S.M.H. SANITARY SEWER MANHOLE
- S.S.W. SAN. SWR. CLEAN OUT
- G.V. GAS VALVE
- W.V. WATER VALVE
- TREE

EXIST. CONTOUR

75 PROP. CONTOUR



INLET PROTECTION LOCATION



EROSION CONTROL LOCATION

REFER TO SHEET C-8.1 & 8.2
FOR EROSION CONTROL DETAILS.

EROSION CONTROL GENERAL NOTES

1. GENERAL CONTRACTOR AND OWNER ARE RESPONSIBLE FOR PREVENTING THE FLOW OR OFF-SITE TRACKING OF SEDIMENT AND OTHER POLLUTANTS TO EXISTING STREETS AND ADJACENT PROPERTIES.
2. ALL POINTS USED AS AN EXIT FROM AREAS OF EXPOSED SOIL MUST HAVE A ROCK STABILIZED CONSTRUCTION ENTRY/EXIT FIFTY FEET (50') IN LENGTH WITH THREE INCH (3") DIAMETER STONE COVER. GENERAL CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS POINTS AND PREVENTING EXIT AT UNPROTECTED LOCATIONS.
3. IF "SUMP" PUMPS ARE USED TO REMOVE WATER FROM EXCAVATED AREAS, FILTER THE DISCHARGE TO REMOVE SEDIMENT AND OTHER POLLUTANTS BEFORE THE WATER LEAVES THE SITE.
4. PERIMETER EROSION CONTROL MEASURES AND THE ROCK STABILIZED CONSTRUCTION EXIT MUST BE IN PLACE BEFORE STARTING SOIL DISTURBANCE.
5. DISTURBED SOIL MUST BE STABILIZED WITHIN 14 DAYS IN AREAS WHERE GRADING IS TEMPORARILY OR PERMANENTLY STOPPED FOR MORE THAN 21 DAYS.
6. ALL SURFACE AREAS DISTURBED WITHIN OR ADJACENT TO THE CONSTRUCTION LIMITS MUST BE PERMANENTLY STABILIZED. STABILIZATION IS OBTAINED WHEN THE SITE IS COVERED WITH IMPERVIOUS STRUCTURES, PAVING OR A UNIFORM PERENNIAL VEGETATIVE COVER. THE PERENNIAL VEGETATION MUST HAVE A COVERAGE DENSITY OF AT LEAST 70 PERCENT. STABILIZATION IS REQUIRED BEFORE TERMINATING MAINTENANCE AND REMOVAL OF EROSION CONTROL MEASURES.
7. THE GENERAL CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT LEAST ONCE EACH WEEK AND WITHIN 24 HOURS AFTER A STORM EVENT OF 0.5 INCH OR GREATER TO MAINTAIN FUNCTION OF THE CONTROLS. MAINTENANCE IS CRUCIAL TO EROSION CONTROL EFFECTIVENESS. EROSION CONTROL MEASURES THAT PROVE TO BE INEFFECTIVE SHALL BE REPLACED WITH MORE EFFECTIVE MEASURES OR ADDITIONAL MEASURES.
8. FOR DETAILS OF STABILIZATION AND EROSION CONTROL MEASURES, REFER TO THE CONSTRUCTION BEST MANAGEMENT PRACTICES (CBMP) MANUAL PUBLISHED BY NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS.

As-Built: 6.22.17



THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED BY
BRYAN M. BURGER, P.E. 90880
ON 10-21-76



REV.	DATE	REMARKS					
EROSION CONTROL PLAN							
ALDI FOOD MARKET							
LOT 1, BLOCK 4 – RIDGE/SUMMER LEE ADDITION							
THE CITY OF ROCKWALL, TEXAS							
B URGER ENGINEERING		17103 Preston Road, Suite 180N Dallas, Texas 75248 Office: 972.630.3360 Fax: 972.630.3380 TBPE F-12997					
Civil Consultants							
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.	
BMB	JAC	6/16	1"=30'	D.P.	007-116 EROSION	C-8	

DUST CONTROL

DESCRIPTION

DUST CONTROL INCLUDES THOSE MEASURES NECESSARY TO PREVENT WIND TRANSPORT OF DUST FROM DISTURBED SOIL SURFACES ONTO ROADWAYS, DRAINAGE WAYS, AND SURFACE WATERS.

PRIMARY USE

DUST CONTROL IS APPLIED IN AREAS (INCLUDING ROADWAYS) SUBJECT TO SURFACE AND AIR MOVEMENT TO DUST WHERE ON-SITE AND OFF-SITE IMPACTS TO ROADWAYS, DRAINAGE WAYS, OR SURFACE WATERS ARE LIKELY.

DESIGN CRITERIA

VEGETATE OR MULCH AREAS THAT WILL NOT RECEIVE HEAVY TRAFFIC IN AREAS WHERE PLANTING, MULCHING, OR PAVING IS IMPRACTICAL, APPLY GRAVEL OR LANDSCAPING ROCKS.

○ LIMIT DUST GENERATION BY CLEARING ONLY THOSE AREAS WHERE IMMEDIATE ACTIVITY WILL TAKE PLACE, LEAVING THE REMAINING AREAS IN THE ORIGINAL CONDITION, IF STABLE. MAINTAIN THE ORIGINAL COVER AS LONG AS PRACTICABLE.

○ CONSTRUCT NATURAL OR ARTIFICIAL WINDBARRIERS OR WINDSCREENS. THESE MAY BE DESIGNED AS ENCLOSURES FOR SMALL DUST SOURCES.

○ SPARKLE THE SITE WITH WATER UNTIL DIAPHRAGM SUFFICIENTLY TO PREVENT DUST AND REPEAT AS NEEDED, DO NOT APPLY WATER IN QUANTITIES TO CAUSE RUNOFF. IRRIGATION WATER CAN BE USED FOR DUST CONTROL. IRRIGATION SYSTEMS SHOULD BE INSTALLED AS A FIRST STEP ON SITES WHERE DUST CONTROL IS A CONCERN.

SPECIFICATIONS

NO SPECIFICATION FOR CONSTRUCTION OF THIS ITEM IS CURRENTLY AVAILABLE IN THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

APPLICATIONS

PERMETER CONTROL
SLOPE PROTECTION
SEDIMENT TRAPPING
CHANNEL PROTECTION
TEMPORARY STABILIZATION
PERMANENT STABILIZATION
WASTE MANAGEMENT
HOUSEKEEPING PRACTICES

TARGETED CONSTITUENTS

- SEDIMENT
- NUTRIENTS TOXIC
- OIL & GREASE
- FLOATABLE MATERIALS
- OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- SUITABILITY FOR SLOPES > 5%

LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- LOW IMPACT
- 7 UNKNOWN OR QUESTIONABLE IMPACT

E-8

SILT FENCE

DESCRIPTION

A SILT FENCE CONSISTS OF GEOTEXTILE FABRIC SUPPORTED BY WIRE MESH NETTING OR OTHER BACKING STRETCHED BETWEEN EITHER WOODEN OR METAL POSTS WITH THE LOWER EDGE OF THE FABRIC SECURELY EMBEDDED SIX-INCHES IN THE SOIL. THE FENCE IS TYPICALLY LOCATED DOWNSTREAM OF DISTURBED AREAS TO INTERCEPT RUNOFF IN THE FORM OF SHEET FLOW. A SILT FENCE PROVIDES BOTH FILTRATION AND TIME FOR SEDIMENT SETTLING BY REDUCING THE VELOCITY OF THE RUNOFF.

PRIMARY USE

SILT FENCE IS NORMALLY USED AS PERMETER CONTROL, LOCATED DOWNSTREAM OF DISTURBED AREAS. IT IS ONLY FEASIBLE FOR NON-CONCENTRATED, SHEET FLOW CONDITIONS. IF IT BECOMES NECESSARY TO PLACE A SILT FENCE WHERE CONCENTRATED FLOWS MAY BE EXPERIENCED (E.G. WHERE TWO SILT FENCES JOIN AT AN ANGLE, OR TYPICALLY MINOR CHANNELS OR GULLIES), IT WILL BE NECESSARY TO REINFORCE THE SILT FENCE AT THAT AREA BY A ROCK BERM OR SAND BAG BERM, OR OTHER STRUCTURAL MEASURES THAT WILL SUPPORT THE SILT FENCE.

APPLICATIONS

SILT FENCE IS AN ECONOMIC MEANS TO TREAT OVERLAND, NON-CONCENTRATED FLOWS FOR ALL TYPES OF PROJECTS. SILT FENCES ARE USED AS PERMETER CONTROL DEVICES FOR BOTH SITE DEVELOPERS AND LINEAR (ROADWAY) TYPE PROJECTS. THEY ARE MOST EFFECTIVE WITH COARSE TO SILT SOIL TYPES. DUE TO THE POTENTIAL OF CLOGGING AND LIMITED EFFECTIVENESS, SILT FENCES SHOULD BE USED WITH CAUTION IN AREAS THAT HAVE PREDOMINANTLY CLAY SOIL TYPES. IN THIS LATTER INSTANCE A SOILS ENGINEER OR SOIL SCIENTIST SHOULD CONFIRM THE SUITABILITY OF SILT FENCE FOR THAT APPLICATION.

DESIGN CRITERIA

- 1. FENCES ARE TO BE CONSTRUCTED ALONG A LINE OF CONSTANT ELEVATION (ALONG A CONTOUR LINE) WHERE POSSIBLE.
- 2. MAXIMUM DRAINAGE AREA SHALL BE 0.25 ACRE PER 100 LINEAR FEET OF SILT FENCE.
- 3. MAXIMUM FLOW TO ANY 20 FOOT SECTION OF SILT FENCE SHALL BE 1 CFS.
- 4. MAXIMUM DISTANCE OF FLOW TO SILT FENCE SHALL BE 200 FEET OR LESS, IF THE SLOPE EXCEEDS ONE PERCENT. FLOW DISTANCE SHALL BE LESS THAN 50 FEET.
- 5. MAXIMUM SLOPE ADJACENT TO THE FENCE SHALL BE 2:1.
- 6. IF SIX OR LESS SOIL, BY WEIGHT, PASSES THE U.S. STANDARD SIEVE NO. 200; SELECT THE APPARENT OPENING SIZE (A.O.S.) TO RETAIN 80% OF THE SOIL.
- 7. IF SIX OR MORE OF SOIL, BY WEIGHT, PASSES THE U.S. STANDARD SIEVE NO. 200, SILT FENCES SHALL NOT BE USED UNLESS THE SOIL HAS BEEN PREVIOUSLY DETERMINED SUITABLE BY A SOILS SCIENTIST OR GEOTECHNICAL ENGINEER CONCERNING THE EROSION OF THE SOIL MASS, DISPERSE CHARACTERISTICS, AND THE POTENTIAL GRAIN-SIZE CHARACTERISTICS OF THE MATERIAL THAT IS LIKELY TO BE ERODED.
- 8. STONE OVERFLOW STRUCTURES OR OTHER OUTLET CONTROL DEVICES SHALL BE INSTALLED AT ALL LOW POINTS ALONG THE FENCE OR SPACED AT APPROXIMATELY 300 FEET IF THERE IS NO APPARENT LOW POINT.
- 9. FILTER STONE FOR OVERFLOW STRUCTURE SHALL BE 1-1/2" WASHED STONE CONTAINING NO FINES. ANGULAR SHAPED STONE IS PREFERRED TO ROUNDED SHAPES.

APPLICATIONS

PERMETER CONTROL
SLOPE PROTECTION
SEDIMENT TRAPPING
CHANNEL PROTECTION
TEMPORARY STABILIZATION
PERMANENT STABILIZATION
WASTE MANAGEMENT
HOUSEKEEPING PRACTICES

TARGETED CONSTITUENTS

- SEDIMENT
- NUTRIENTS TOXIC
- OIL & GREASE
- FLOATABLE MATERIALS
- OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- SUITABILITY FOR SLOPES > 5%

LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- LOW IMPACT
- 7 UNKNOWN OR QUESTIONABLE IMPACT

Fe = 0.75

S-1

SILT FENCE

DESIGN CRITERIA

- 1. SILT FENCE FABRIC MUST MEET THE FOLLOWING MINIMUM CRITERIA:
 - TENSILE STRENGTH, ASTM D4832 TEST METHOD FOR GRAB BREAKING LOAD AND ELONGATION OF GEOTEXTILES, 300 LBS.
 - PUNCTURE RATING, ASTM D4832 TEST METHOD FOR INDEX PUNCTURE RESISTANCE OF GEOTEXTILES, GEOMEMBRANES AND RELATED PRODUCTS, 120 LBS.
 - MULLEN BURST RATING, ASTM D3786 STANDARD TEST METHOD FOR HYDRAULIC BURSTING STRENGTH OF TEXTILE FABRICS-DIAPHRAGM BURSTING STRENGTH TESTER METHOD, 280 PSF.
 - APPARENT OPENING SIZE, ASTM D4751 TEST METHOD FOR DETERMINING APPARENT OPENING SIZE OF A GEOTEXTILE, U.S. SIEVE NO. 70 (MAX) TO NO. 100 (MIN).
 - ULTIMATE RESISTANCE, ASTM D6355, MINIMUM 70 PERCENT.
- 2. FENCE POSTS SHALL BE GALVANIZED STEEL AND MAY BE T-SERION OR L-SERION, 1.3 POUNDS PER LINEAR FOOT MINIMUM, AND 4 FEET IN LENGTH MINIMUM. WOOD POSTS MAY BE USED DEPENDING ON ANTICIPATED LENGTH OF FENCE AND PROVIDED THEY ARE 4 FEET IN LENGTH MINIMUM AND HAVE A NOMINAL CROSS SECTION OF 2 INCHES BY 4 INCHES. THE CRUISE FOR PINE OR 2 INCHES BY 2 INCHES FOR OTHERS.
- 3. SILT FENCE SHALL BE SUPPORTED BY GALVANIZED STEEL WIRE FENCE FABRIC AS FOLLOWS:
 - 4"x4" MESH, SIZE W1/4"x1/4", MINIMUM 14-GAUGE WIRE FENCE FABRIC.
 - 100 MESH, 1/2" GAUGE WIRE WITH SMALL CROOKS INSTALLED AT BOTTOM OF SILT FENCE.
 - STANDARD 2" X 12" CHAIN LINK FENCE FABRIC, OR
 - OTHER WELDED OR WOVEN STEEL FABRICS CONSISTING OF EQUAL OR SMALLER SPACING AS THAT LISTED HEREIN AND APPROPRIATE GAUGE WIRE TO PROVIDE SUPPORT.
- 4. A 6-INCH WIDE TRENCH IS TO BE CUT 6 INCHES DEEP AT THE TOE OF THE FENCE TO ALLOW THE FABRIC TO BE LAID BELOW THE SURFACE AND BACKFILL WITH COMPACTED EARTH OR GRAVEL TO PREVENT BYPASS OF RUNOFF UNDER THE FENCE. BRATTICES AT BUTTING ENDS A MINIMUM OF 3 FEET AND SHALL BE JOINED SUCH THAT NO LEAKAGE OR BYPASS OCCURS.
- 5. SUFFICIENT ROOM FOR THE OPERATION OF SEDIMENT REMOVAL EQUIPMENT SHALL BE PROVIDED BETWEEN THE SILT FENCE AND OTHER OBSTRUCTIONS IN ORDER TO PROPERLY MAINTAIN THE FENCE.
- 6. THE ENDS OF THE FENCE SHALL BE TURNED UPSTREAM TO PREVENT BYPASS OF STORM WATER.

LIMITATIONS

MINOR POtholes WILL LIKELY OCCUR AT THE UPSTREAM SIDE OF THE SILT FENCE, WHICH COULD RESULT IN MINOR LOCALIZED FLOODING. SILT FENCES ARE NOT INTENDED FOR FLOWING WATER IN CHANNELS OR AREAS SUBJECT TO CONCENTRATED FLOWS. SILT FENCES SHALL NOT BE USED WHERE SOIL CONDITIONS PREVENT A MINIMUM TOE-IN DEPTH OF 6 INCHES OR INSTALLATION OF A SILT FENCE TO A DEPTH OF 12 INCHES.

SILT FENCE CAN INTERFERE WITH CONSTRUCTION OPERATIONS; THEREFORE PLANNING OF ACCESS ROUTES OUT OF THE SITE IS CRITICAL. SILT FENCE CAN FAIL STRUCTURALLY UNDER HEAVY STORM FLOWS, WHICH MAY BE NECESSARY TO MAINTAIN PROBLEMS AND REDUCING THE EFFECTIVENESS OF THE SYSTEM.

MAINTENANCE REQUIREMENTS

SILT FENCE SHOULD BE INSPECTED REGULARLY (AT LEAST AS OFTEN AS REQUIRED BY THE TRIPES CONSTRUCTION GENERAL PERMIT, APPENDIX A) FOR BUILDUP OF EXCESSIVE SEDIMENT, UNDERSTANDING, SAGS, AND OTHER FAILURES. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES APPROXIMATELY 1/2" IN DEPTH. IF THE FABRIC BECOMES DAMAGED OR CLOGGED, IT SHOULD BE REPAIRED OR REPLACED AS NECESSARY.

SPECIFICATION

SPECIFICATIONS FOR CONSTRUCTION OF THIS ITEM MAY BE FOUND IN THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

APPLICATIONS

PERMETER CONTROL
SLOPE PROTECTION
SEDIMENT TRAPPING
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- OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- SUITABILITY FOR SLOPES > 5%

LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- LOW IMPACT
- 7 UNKNOWN OR QUESTIONABLE IMPACT

Fe = 0.75

S-1

SILT FENCE & STONE OVERFLOW STRUCTURE

DESIGN CRITERIA

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SILT FENCE SHOULD BE INSPECTED REGULARLY (AT LEAST AS OFTEN AS REQUIRED BY THE TRIPES CONSTRUCTION GENERAL PERMIT, APPENDIX A) FOR BUILDUP OF EXCESSIVE SEDIMENT, UNDERSTANDING, SAGS, AND OTHER FAILURES. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES APPROXIMATELY 1/2" IN DEPTH. IF THE FABRIC BECOMES DAMAGED OR CLOGGED, IT SHOULD BE REPAIRED OR REPLACED AS NECESSARY.

SPECIFICATION

SPECIFICATIONS FOR CONSTRUCTION OF THIS ITEM MAY BE FOUND IN THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

APPLICATIONS

PERMETER CONTROL
SLOPE PROTECTION
SEDIMENT TRAPPING
CHANNEL PROTECTION
TEMPORARY STABILIZATION
PERMANENT STABILIZATION
WASTE MANAGEMENT
HOUSEKEEPING PRACTICES

TARGETED CONSTITUENTS

- SEDIMENT
- NUTRIENTS TOXIC
- OIL & GREASE
- FLOATABLE MATERIALS
- OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- SUITABILITY FOR SLOPES > 5%

LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- LOW IMPACT
- 7 UNKNOWN OR QUESTIONABLE IMPACT

Fe = 0.75

S-1

INLET PROTECTION

DESCRIPTION

INLET PROTECTION CONSISTS OF A VARIETY OF METHODS OF INTERCEPTING SEDIMENT AT LOW POINT INLETS THROUGH THE USE OF STONE, FILTER FABRIC, INLET INSERTS AND OTHER MATERIALS. THIS IS DONE TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE DETENTION OR FILTRATION TO REDUCE SEDIMENT AND FLOATABLE MATERIALS IN STORM FLOWS.

PRIMARY USE

INLET PROTECTION SHOULD BE CONSIDERED A SECONDARY DEFENSE IN SITE EROSION CONTROL. DUE TO THE LIMITED EFFECTIVENESS AND APPLICATION OF THE TECHNIQUE, IT IS NORMALLY USED IN NEW DEVELOPMENTS THAT INCLUDE NEW INLETS OR ROADS WITH NEW CURB INLETS OR DURING MAJOR REPAIRS TO EXISTING ROADWAYS.

SILT FENCE HAS LIMITED USE IN DEVELOPED AREAS DUE TO THE POTENTIAL FOR FLOODING, TRAFFIC SAFETY, PERMANENT SAFETY AND MAINTENANCE PROBLEMS. INLET PROTECTION CAN REDUCE SEDIMENT IN STORM SEWER SYSTEMS BY SERVING AS A BACK UP SYSTEM TO ON-SITE CONTROLS OR BY REDUCING SEDIMENT LOADS FROM CONTROLS WITH LIMITED EFFECTIVENESS.

APPLICATIONS

DIFFERENT INLET PROTECTION VARIATIONS ARE USED FOR DIFFERENT CONDITIONS AS FOLLOWS:

- 1. FILTER BARRIER PROTECTION (SIMILAR TO A SILT FENCE BARRIER ABOVE THE INLET) IS APPROPRIATE WHEN THE DRAINAGE AREA IS LESS THAN ONE ACRE, THE BASIN SHALL BE LESS THAN FIVE (5) PERCENT. THIS TYPE OF PROTECTION IS NOT ALLOWED FOR OVERFLOWING TO PREVENT FLOODING.
- 2. BLOCK AND GRAVEL (CRUSHED STONE, RECYCLED CONCRETE IS ALSO APPROPRIATE) AREAS OF FLOW EXCEED 50 C.F.S. AND IT IS NECESSARY TO ALLOW FOR OVERFLOWING TO PREVENT FLOODING.
- 3. EXCAVATED IMPOUNDMENT PROTECTION AROUND A DROP INLET MAY BE USED FOR PROTECTION AGAINST SEDIMENT ENTERING A STORM DRAIN SYSTEM. WITH THIS METHOD, IT IS NECESSARY TO INSTALL WEEP HOLES TO ALLOW THE IMPOUNDMENT TO DRAIN COMPLETELY. THE IMPOUNDMENT SHALL BE SIZED SUCH THAT THE VOLUME OF EXCAVATION SHALL BE EQUAL TO 1800 TO 3600 CUBIC FEET PER ACRE OF DISTURBED AREA ENTERING THE INLET FOR EACH FEET EFFECTIVE.

DESIGN CRITERIA

- 1. SPECIAL CAUTION MUST BE EXERCISED WHEN INSTALLING INLET PROTECTION ON PUBLICLY TRAVELED STREETS OR IN DEVELOPED AREAS, ENSURE THAT INLET PROTECTION IS PROPERLY DESIGNED, INSTALLED AND MAINTAINED TO AVOID FLOODING OF THE ROADWAY OR ADJACENT PROPERTIES AND STRUCTURES.
- 2. FILTER FABRIC PROTECTION SHALL BE DESIGNED AND MAINTAINED IN A MANNER SIMILAR TO SILT FENCE.
- 3. WHERE APPLICABLE, FILTER FABRIC, POSTS, AND WIRE BACKING SHALL MEET THE MATERIAL REQUIREMENTS SPECIFIED IN BMP FACT SHEET S-1, SILT FENCE.
- 4. FILTER GRAVEL SHALL BE 3/4 INCH MINIMUM AND GRAVEL PROTECTION OR 1-1/2 TO 2 INCH (EXCAVATED IMPOUNDMENT PROTECTION) WASHED STONE CONTAINING NO FINES. GRAVEL SHALL BE AVAILABLE TO ROADWAYS AS A REPLACEMENT FOR STRAW UNLESS IT CAN BE DETERMINED THAT IT IS WEED AND SEED FREE.
- 5. CONCRETE BLOCKS SHALL BE STANDARD 8" X 8" X 16" CONCRETE MASONRY UNITS
- 6. MAXIMUM DEPTH OF FLOW SHALL BE EIGHT (8) INCHES OR LESS.

APPLICATIONS

PERMETER CONTROL
SLOPE PROTECTION
SEDIMENT TRAPPING
CHANNEL PROTECTION
TEMPORARY STABILIZATION
PERMANENT STABILIZATION
WASTE MANAGEMENT
HOUSEKEEPING PRACTICES

TARGETED CONSTITUENTS

- SEDIMENT
- NUTRIENTS TOXIC
- OIL & GREASE
- FLOATABLE MATERIALS
- OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- SUITABILITY FOR SLOPES > 5%

LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- LOW IMPACT
- 7 UNKNOWN OR QUESTIONABLE IMPACT

VARIES

S-4

INLET PROTECTION

DESCRIPTION

POSITIVE DRAINAGE IS CRITICAL IN THE DESIGN OF INLET PROTECTION. IF OVERFLOW IS NOT PROVIDED FOR AT THE INLET, EXCESS FLOWS SHALL BE ROUTED THROUGH ESTABLISHED SWALES, STREETS, OR OTHER WATERCOURSES TO MINIMIZE DAMAGE TO FLOODING AND EROSION.

FLITER BARRIER PROTECTION

FLITER BARRIER PROTECTION (SIMILAR TO A SILT FENCE BARRIER SUPPORTED BY WIRE MESH, W/4 X W/4, AND GALVANIZED STEEL POSTS SET A MINIMUM OF 1 FOOT DEPTH AND ADJACENT PROPERTIES AND STRUCTURES. THIS IS DONE TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE DETENTION OR FILTRATION TO REDUCE SEDIMENT AND FLOATABLE MATERIALS IN STORM FLOWS.

PRIMARY USE

INLET PROTECTION SHOULD BE CONSIDERED A SECONDARY DEFENSE IN SITE EROSION CONTROL. DUE TO THE LIMITED EFFECTIVENESS AND APPLICATION OF THE TECHNIQUE, IT IS NORMALLY USED IN NEW DEVELOPMENTS THAT INCLUDE NEW INLETS OR ROADS WITH NEW CURB INLETS OR DURING MAJOR REPAIRS TO EXISTING ROADWAYS.

SILT FENCE HAS LIMITED USE IN DEVELOPED AREAS DUE TO THE POTENTIAL FOR FLOODING, TRAFFIC SAFETY, PERMANENT SAFETY AND MAINTENANCE PROBLEMS. INLET PROTECTION CAN REDUCE SEDIMENT IN STORM SEWER SYSTEMS BY SERVING AS A BACK UP SYSTEM TO ON-SITE CONTROLS OR BY REDUCING SEDIMENT LOADS FROM CONTROLS WITH LIMITED EFFECTIVENESS.

APPLICATIONS

DIFFERENT INLET PROTECTION VARIATIONS ARE USED FOR DIFFERENT CONDITIONS AS FOLLOWS:

- 1. FILTER BARRIER PROTECTION (SIMILAR TO A SILT FENCE BARRIER ABOVE THE INLET) IS APPROPRIATE WHEN THE DRAINAGE AREA IS LESS THAN ONE ACRE, THE BASIN SHALL BE LESS THAN FIVE (5) PERCENT. THIS TYPE OF PROTECTION IS NOT ALLOWED FOR OVERFLOWING TO PREVENT FLOODING.
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- 3. EXCAVATED IMPOUNDMENT PROTECTION AROUND A DROP INLET MAY BE USED FOR PROTECTION AGAINST SEDIMENT ENTERING A STORM DRAIN SYSTEM. WITH THIS METHOD, IT IS NECESSARY TO INSTALL WEEP HOLES TO ALLOW THE IMPOUNDMENT TO DRAIN COMPLETELY. THE IMPOUNDMENT SHALL BE SIZED SUCH THAT THE VOLUME OF EXCAVATION SHALL BE EQUAL TO 1800 TO 3600 CUBIC FEET PER ACRE OF DISTURBED AREA ENTERING THE INLET FOR EACH FEET EFFECTIVE.

DESIGN CRITERIA

- 1. SPECIAL CAUTION MUST BE EXERCISED WHEN INSTALLING INLET PROTECTION ON PUBLICLY TRAVELED STREETS OR IN DEVELOPED AREAS, ENSURE THAT INLET PROTECTION IS PROPERLY DESIGNED, INSTALLED AND MAINTAINED TO AVOID FLOODING OF THE ROADWAY OR ADJACENT PROPERTIES AND STRUCTURES.
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- 3. WHERE APPLICABLE, FILTER FABRIC, POSTS, AND WIRE BACKING SHALL MEET THE MATERIAL REQUIREMENTS SPECIFIED IN BMP FACT SHEET S-1, SILT FENCE.
- 4. FILTER GRAVEL SHALL BE 3/4 INCH MINIMUM AND GRAVEL PROTECTION OR 1-1/2 TO 2 INCH (EXCAVATED IMPOUNDMENT PROTECTION) WASHED STONE CONTAINING NO FINES. GRAVEL SHALL BE AVAILABLE TO ROADWAYS AS A REPLACEMENT FOR STRAW UNLESS IT CAN BE DETERMINED THAT IT IS WEED AND SEED FREE.
- 5. CONCRETE BLOCKS SHALL BE STANDARD 8" X 8" X 16" CONCRETE MASONRY UNITS
- 6. MAXIMUM DEPTH OF FLOW SHALL BE EIGHT (8) INCHES OR LESS.

APPLICATIONS

PERMETER CONTROL
SLOPE PROTECTION
SEDIMENT TRAPPING
CHANNEL PROTECTION
TEMPORARY STABILIZATION
PERMANENT STABILIZATION
WASTE MANAGEMENT
HOUSEKEEPING PRACTICES

TARGETED CONSTITUENTS

- SEDIMENT
- NUTRIENTS TOXIC
- OIL & GREASE
- FLOATABLE MATERIALS
- OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- SUITABILITY FOR SLOPES > 5%

LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- LOW IMPACT
- 7 UNKNOWN OR QUESTIONABLE IMPACT

VARIES

S-4

INLET PROTECTION - DROP INLET

DESCRIPTION

INLET PROTECTION CONSISTS OF A VARIETY OF METHODS OF INTERCEPTING SEDIMENT AT LOW POINT INLETS THROUGH THE USE OF STONE, FILTER FABRIC, INLET INSERTS AND OTHER MATERIALS. THIS IS DONE TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE DETENTION OR FILTRATION TO REDUCE SEDIMENT AND FLOATABLE MATERIALS IN STORM FLOWS.

PRIMARY USE

INLET PROTECTION SHOULD BE CONSIDERED A SECONDARY DEFENSE IN SITE EROSION CONTROL. DUE TO THE LIMITED EFFECTIVENESS AND APPLICATION OF THE TECHNIQUE, IT IS NORMALLY USED IN NEW DEVELOPMENTS THAT INCLUDE NEW INLETS OR ROADS WITH NEW CURB INLETS OR DURING MAJOR REPAIRS TO EXISTING ROADWAYS.

SILT FENCE HAS LIMITED USE IN DEVELOPED AREAS DUE TO THE POTENTIAL FOR FLOODING, TRAFFIC SAFETY, PERMANENT SAFETY AND MAINTENANCE PROBLEMS. INLET PROTECTION CAN REDUCE SEDIMENT IN STORM SEWER SYSTEMS BY SERVING AS A BACK UP SYSTEM TO ON-SITE CONTROLS OR BY REDUCING SEDIMENT LOADS FROM CONTROLS WITH LIMITED EFFECTIVENESS.

APPLICATIONS

DIFFERENT INLET PROTECTION VARIATIONS ARE USED FOR DIFFERENT CONDITIONS AS FOLLOWS:

- 1. FILTER BARRIER PROTECTION (SIMILAR TO A SILT FENCE BARRIER ABOVE THE INLET) IS APPROPRIATE WHEN THE DRAINAGE AREA IS LESS THAN ONE ACRE, THE BASIN SHALL BE LESS THAN FIVE (5) PERCENT. THIS TYPE OF PROTECTION IS NOT ALLOWED FOR OVERFLOWING TO PREVENT FLOODING.
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DESIGN CRITERIA

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- 5. CONCRETE BLOCKS SHALL BE STANDARD 8" X 8" X 16" CONCRETE MASONRY UNITS
- 6. MAXIMUM DEPTH OF FLOW SHALL BE EIGHT (8) INCHES OR LESS.

APPLICATIONS

PERMETER CONTROL
SLOPE PROTECTION
SEDIMENT TRAPPING
CHANNEL PROTECTION
TEMPORARY STABILIZATION
PERMANENT STABILIZATION
WASTE MANAGEMENT
HOUSEKEEPING PRACTICES

TARGETED CONSTITUENTS

- SEDIMENT
- NUTRIENTS TOXIC
- OIL & GREASE
- FLOATABLE MATERIALS
- OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- SUITABILITY FOR SLOPES > 5%

LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- LOW IMPACT
- 7 UNKNOWN OR QUESTIONABLE IMPACT

Fe = 0.9

E - 5

INLET PROTECTION - FILTER BARRIER

DESCRIPTION

INLET PROTECTION CONSISTS OF A VARIETY OF METHODS OF INTERCEPTING SEDIMENT AT LOW POINT INLETS THROUGH THE USE OF STONE, FILTER FABRIC, INLET INSERTS AND OTHER MATERIALS. THIS IS DONE TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE DETENTION OR FILTRATION TO REDUCE SEDIMENT AND FLOATABLE MATERIALS IN STORM FLOWS.

PRIMARY USE

INLET PROTECTION SHOULD BE CONSIDERED A SECONDARY DEFENSE IN SITE EROSION CONTROL. DUE TO THE LIMITED EFFECTIVENESS AND APPLICATION OF THE TECHNIQUE, IT IS NORMALLY USED IN NEW DEVELOPMENTS THAT INCLUDE NEW INLETS OR ROADS WITH NEW CURB INLETS OR DURING MAJOR REPAIRS TO EXISTING ROADWAYS.

SILT FENCE HAS LIMITED USE IN DEVELOPED AREAS DUE TO THE POTENTIAL FOR FLOODING, TRAFFIC SAFETY, PERMANENT SAFETY AND MAINTENANCE PROBLEMS. INLET PROTECTION CAN REDUCE SEDIMENT IN STORM SEWER SYSTEMS BY SERVING AS A BACK UP SYSTEM TO ON-SITE CONTROLS OR BY REDUCING SEDIMENT LOADS FROM CONTROLS WITH LIMITED EFFECTIVENESS.

APPLICATIONS

DIFFERENT INLET PROTECTION VARIATIONS ARE USED FOR DIFFERENT CONDITIONS AS FOLLOWS:

- 1. FILTER BARRIER PROTECTION (SIMILAR TO A SILT FENCE BARRIER ABOVE THE INLET) IS APPROPRIATE WHEN THE DRAINAGE AREA IS LESS THAN ONE ACRE, THE BASIN SHALL BE LESS THAN FIVE (5) PERCENT. THIS TYPE OF PROTECTION IS NOT ALLOWED FOR OVERFLOWING TO PREVENT FLOODING.
- 2. BLOCK AND GRAVEL (CRUSHED STONE, RECYCLED CONCRETE IS ALSO APPROPRIATE) AREAS OF FLOW EXCEED 50 C.F.S. AND IT IS NECESSARY TO ALLOW FOR OVERFLOWING TO PREVENT FLOODING.
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DESIGN CRITERIA

- 1. SPECIAL CAUTION MUST BE EXERCISED WHEN INSTALLING INLET PROTECTION ON PUBLICLY TRAVELED STREETS OR IN DEVELOPED AREAS, ENSURE THAT INLET PROTECTION IS PROPERLY DESIGNED, INSTALLED AND MAINTAINED TO AVOID FLOODING OF THE ROADWAY OR ADJACENT PROPERTIES AND STRUCTURES.
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- 4. FILTER GRAVEL SHALL BE 3/4 INCH MINIMUM AND GRAVEL PROTECTION OR 1-1/2 TO 2 INCH (EXCAVATED IMPOUNDMENT PROTECTION) WASHED STONE CONTAINING NO FINES. GRAVEL SHALL BE AVAILABLE TO ROADWAYS AS A REPLACEMENT FOR STRAW UNLESS IT CAN BE DETERMINED THAT IT IS WEED AND SEED FREE.
- 5. CONCRETE BLOCKS SHALL BE STANDARD 8" X 8" X 16" CONCRETE MASONRY UNITS
- 6. MAXIMUM DEPTH OF FLOW SHALL BE EIGHT (8) INCHES OR LESS.

APPLICATIONS

PERMETER CONTROL
SLOPE PROTECTION
SEDIMENT TRAPPING
CHANNEL PROTECTION
TEMPORARY STABILIZATION
PERMANENT STABILIZATION
WASTE MANAGEMENT
HOUSEKEEPING PRACTICES

TARGETED CONSTITUENTS

- SEDIMENT
- NUTRIENTS TOXIC
- OIL & GREASE
- FLOATABLE MATERIALS
- OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- SUITABILITY FOR SLOPES > 5%

LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- LOW IMPACT
- 7 UNKNOWN OR QUESTIONABLE IMPACT

Fe = 0.9

E - 5

INLET PROTECTION - CURB (PRIVATE)

DESCRIPTION

INLET PROTECTION CONSISTS OF A VARIETY OF METHODS OF INTERCEPTING SEDIMENT AT LOW POINT INLETS THROUGH THE USE OF STONE, FILTER FABRIC, INLET INSERTS AND OTHER MATERIALS. THIS IS DONE TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE DETENTION OR FILTRATION TO REDUCE SEDIMENT AND FLOATABLE MATERIALS IN STORM FLOWS.

PRIMARY USE

INLET PROTECTION SHOULD BE CONSIDERED A SECONDARY DEFENSE IN SITE EROSION CONTROL. DUE TO THE LIMITED EFFECTIVENESS AND APPLICATION OF THE TECHNIQUE, IT IS NORMALLY USED IN NEW DEVELOPMENTS THAT INCLUDE NEW INLETS OR ROADS WITH NEW CURB INLETS OR DURING MAJOR REPAIRS TO EXISTING ROADWAYS.

SILT FENCE HAS LIMITED USE IN DEVELOPED AREAS DUE TO THE POTENTIAL FOR FLOODING, TRAFFIC SAFETY, PERMANENT SAFETY AND MAINTENANCE PROBLEMS. INLET PROTECTION CAN REDUCE SEDIMENT IN STORM SEWER SYSTEMS BY SERVING AS A BACK UP SYSTEM TO ON-SITE CONTROLS OR BY REDUCING SEDIMENT LOADS FROM CONTROLS WITH LIMITED EFFECTIVENESS.

APPLICATIONS

DIFFERENT INLET PROTECTION VARIATIONS ARE USED FOR DIFFERENT CONDITIONS AS FOLLOWS:

- 1. FILTER BARRIER PROTECTION (SIMILAR TO A SILT FENCE BARRIER ABOVE THE INLET) IS APPROPRIATE WHEN THE DRAINAGE AREA IS LESS THAN ONE ACRE, THE BASIN SHALL BE LESS THAN FIVE (5) PERCENT. THIS TYPE OF PROTECTION IS NOT ALLOWED FOR OVERFLOWING TO PREVENT FLOODING.
- 2. BLOCK AND GRAVEL (CRUSHED STONE, RECYCLED CONCRETE IS ALSO APPROPRIATE) AREAS OF FLOW EXCEED 50 C.F.S. AND IT IS NECESSARY TO ALLOW FOR OVERFLOWING TO PREVENT FLOODING.
- 3. EXCAVATED IMPOUNDMENT PROTECTION AROUND A DROP INLET MAY BE USED FOR PROTECTION AGAINST SEDIMENT ENTERING A STORM DRAIN SYSTEM. WITH THIS METHOD, IT IS NECESSARY TO INSTALL WEEP HOLES TO ALLOW THE IMPOUNDMENT TO DRAIN COMPLETELY. THE IMPOUNDMENT SHALL BE SIZED SUCH THAT THE VOLUME OF EXCAVATION SHALL BE EQUAL TO 1800 TO 3600 CUBIC FEET PER ACRE OF DISTURBED AREA ENTERING THE INLET FOR EACH FEET EFFECTIVE.

DESIGN CRITERIA

- 1. SPECIAL CAUTION MUST BE EXERCISED WHEN INSTALLING INLET PROTECTION ON PUBLICLY TRAVELED STREETS OR IN DEVELOPED AREAS, ENSURE THAT INLET PROTECTION IS PROPERLY DESIGNED, INSTALLED AND MAINTAINED TO AVOID FLOODING OF THE ROADWAY OR ADJACENT PROPERTIES AND STRUCTURES.
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- 4. FILTER GRAVEL SHALL BE 3/4 INCH MINIMUM AND GRAVEL PROTECTION OR 1-1/2 TO 2 INCH (EXCAVATED IMPOUNDMENT PROTECTION) WASHED STONE CONTAINING NO FINES. GRAVEL SHALL BE AVAILABLE TO ROADWAYS AS A REPLACEMENT FOR STRAW UNLESS IT CAN BE DETERMINED THAT IT IS WEED AND SEED FREE.
- 5. CONCRETE BLOCKS SHALL BE STANDARD 8" X 8" X 16" CONCRETE MASONRY UNITS
- 6. MAXIMUM DEPTH OF FLOW SHALL BE EIGHT (8) INCHES OR LESS.

APPLICATIONS

PERMETER CONTROL
SLOPE PROTECTION
SEDIMENT TRAPPING
CHANNEL PROTECTION
TEMPORARY STABILIZATION
PERMANENT STABILIZATION
WASTE MANAGEMENT
HOUSEKEEPING PRACTICES

TARGETED CONSTITUENTS

- SEDIMENT
- NUTRIENTS TOXIC
- OIL & GREASE
- FLOATABLE MATERIALS
- OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- SUITABILITY FOR SLOPES > 5%

LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- LOW IMPACT
- 7 UNKNOWN OR QUESTIONABLE IMPACT

Fe = 0.9

E - 5

VEGETATION

RECOMMENDED GRASS MIXTURE FOR TEMPORARY EROSION CONTROL:

SEASON	COMMON NAME	RATE (LBS./ACRE)
AUG 15 - NOV 30	TALL FESCUE	4.0
	WESTERN WHEAT GRASS	4.0
	WHEAT (RED, WINTER)	30.0
MAY 1 - AUG 31	FOXTAIL MILLET	30.0
FEB 15 - MAY 31	ANNUAL RYE	20.0
SEP 1 - DEC 31		

PERMANENT VEGETATION

GRASS SEED FOR PERMANENT VEGETATION CAN BE SOWN AT THE SAME TIME AS SEEDING FOR TEMPORARY (ANNUAL) VEGETATION. DROUGHT TOLERANT NATIVE VEGETATION IS RECOMMENDED RATHER THAN EXOTICS AS A LONG-TERM WATER CONSERVATION MEASURE. NATIVE GRASSES CAN BE PLANTED AS SEED OR PLACED AS SOO, BUFFALO GRASS, FOR EXAMPLE, IS A HARDY GRASS THAT IS PLACED AS SOO. FERTILIZERS ARE NOT NORMALLY USED TO ESTABLISH NATIVE GRASSES, BUT MULCHING IS EFFECTIVE IN RETAINING SOIL MOISTURE FOR THE NATIVE PLANTS.

RECOMMENDED NATIVE GRASSES FOR PERMANENT EROSION CONTROL:

GRASS	FULL TURF APPLICATION	RATE
BUFFALO GRASS	FULL TURF APPLICATION	3-4 lbs./1000 sqft.
BLUE GRAMA	FULL TURF APPLICATION	2 lbs./1000 sqft.
SIDE OATS GRAMA	APPLIED WITH OTHER NATIVE SEED	1/4 lb./1000 sqft.

VEGETATION IS NOT APPROPRIATE FOR AREAS SUBJECT TO HEAVY PEDESTRIAN OR VEHICULAR TRAFFIC. TEMPORARY VEGETATION MAY BE USED AS AN INTERIM MEASURE COMPARED TO OTHER TECHNIQUES. VEGETATION WILL REQUIRE A PERIOD OF DAYS TO WEEKS BEFORE BECOMING A WEED. VEGETATION MAY BE USED AS AN INTERIM MEASURE OF SOIL AMENDMENTS (COMPOST, FERTILIZER, ETC.) WILL USUALLY RESULT IN POOR TURF ESTABLISHMENT. ALTERNATE EROSION CONTROL (E.G. MULCHING, COVERED VEGETATIVE STRIPS, ETC.) SHOULD BE USED UNTIL VEGETATION CAN BE ESTABLISHED.

VEGETATION IS NOT APPROPRIATE FOR AREAS SUBJECT TO HEAVY PEDESTRIAN OR VEHICULAR TRAFFIC. TEMPORARY VEGETATION MAY BE USED AS AN INTERIM MEASURE COMPARED TO OTHER TECHNIQUES. VEGETATION WILL REQUIRE A PERIOD OF DAYS TO WEEKS BEFORE BECOMING A WEED. VEGETATION MAY BE USED AS AN INTERIM MEASURE OF SOIL AMENDMENTS (COMPOST, FERTILIZER, ETC.) WILL USUALLY RESULT IN POOR TURF ESTABLISHMENT. ALTERNATE EROSION CONTROL (E.G. MULCHING, COVERED VEGETATIVE STRIPS, ETC.) SHOULD BE USED UNTIL VE

DEBRIS AND TRASH MANAGEMENT

DESCRIPTION

LARGE VOLUMES OF DEBRIS AND TRASH ARE OFTEN GENERATED AT CONSTRUCTION SITES INCLUDING PACKAGING, PALLIUM, PALETS, CONCRETE WASTE, SOIL, ELECTRICAL WIRING, CUTTINGS, AND A VARIETY OF OTHER MATERIALS. THERE ARE SEVERAL TECHNIQUES AND PROCEDURES FOR REDUCING THE POTENTIAL OF STORM WATER CONTAMINATION FROM SOLID WASTE THROUGH APPROPRIATE STORAGE AND DISPOSAL. RECYCLING OF CONSTRUCTION DEBRIS ALSO REDUCES THE VOLUME OF MATERIAL TO BE DISPOSED OF AND ASSOCIATED COSTS.

PRIMARY USE

DEBRIS AND TRASH MANAGEMENT SHOULD BE A PART OF ALL CONSTRUCTION PRACTICES. BY LIMITING THE TRASH AND DEBRIS ON SITE, STORM WATER QUALITY IS IMPROVED. ALONG WITH REDUCED CLEAN UP REQUIREMENTS AT THE COMPLETION OF THE PROJECT.

APPLICATIONS

SOLID WASTE MANAGEMENT FOR CONSTRUCTION SITES IS BASED ON PROPER STORAGE AND DISPOSAL PRACTICES BY CONSTRUCTION WORKERS AND SUPERVISORS. KEY ELEMENTS OF THE PROGRAM ARE EDUCATION AND MODIFICATION OF IMPROPER DISPOSAL HABITS. PROVIDING ADEQUATE VOLUME IS REQUIRED ON THE PART OF SUPERVISORS AND WORKERS TO ENSURE THAT THE RECOMMENDATIONS AND PROCEDURES ARE FOLLOWED. FOLLOWING ARE LISTS DESCRIBING THE TARGETED MATERIALS AND RECOMMENDED PROCEDURES:

- o CONSTRUCTION, (AND DEMOLITION) DEBRIS
- o DIMENSIONAL LUMBER
- o MISCELLANEOUS WOOD (PALETS, PLYWOOD, ETC)
- o COPPER (PIPE AND ELECTRICAL WIRING)
- o MISCELLANEOUS METAL (STUDS, PIPE, CONDUIT, SHEATHING, NAILS, ETC)
- o CONCRETE, BRICK, AND MORTAR
- o SHINGLES
- o ROOFING MATERIALS
- o ASPHALT BOARD
- o TRASH
- o PAPER AND CARDBOARD (PACKAGING, CONTAINERS, WRAPPERS)
- o PLASTIC (PACKAGING, BOTTLES, CONTAINERS)
- o STYROFOAM (CUPS, PACKAGING, AND FORMS)
- o FOOD AND BEVERAGE CONTAINERS
- o FOOD WASTE

STORAGE PROCEDURES

- WHEREVER POSSIBLE, MINIMIZE PRODUCTION OF DEBRIS AND TRASH.
- DESIGNATE A FOREMAN OR SUPERVISOR TO OVERSEE AND ENFORCE PROPER DEBRIS AND TRASH PROCEDURES.
- INSTRUCT CONSTRUCTION WORKERS IN PROPER DEBRIS AND TRASH STORAGE AND HANDLING PROCEDURES.
- SEGREGATE POTENTIALLY HAZARDOUS WASTE FROM NON-HAZARDOUS CONSTRUCTION SITE DEBRIS.
- SEGREGATE RECYCLABLE CONSTRUCTION DEBRIS FROM OTHER NON-RECYCLABLE MATERIALS.
- KEEP DEBRIS AND TRASH UNDER COVER IN EITHER A CLOSED DUMPSTER OR OTHER CONTAINER. TRASH CONTAINER THAT LIMITS CONTACT WITH RAIN AND RUNOFF PREVENTS LIGHT MATERIALS FROM BLOWING OUT.
- STORE WASTE MATERIALS AWAY FROM DRAINAGE DITCHES, SWALES AND CATCH BASINS.
- DO NOT ALLOW TRASH CONTAINERS TO OVERFLOW.
- DO NOT ALLOW WASTE MATERIALS TO ACCUMULATE ON THE GROUND.
- PROHIBIT LITTERING BY ALL PERSONS AND VISITORS.
- POLICE SITE DAILY FOR LITTER AND DEBRIS.
- ENFORCE SOLID WASTE HANDLING AND STORAGE PROCEDURES.

DISPOSAL PROCEDURES

- IF FEASIBLE, RECYCLE CONSTRUCTION AND DEMOLITION DEBRIS SUCH AS WOOD, METAL, AND CONCRETE.
- GENERAL CONSTRUCTION DEBRIS MAY BE HAULED TO A LICENSED CONSTRUCTION DEBRIS LANDFILL (TYPICALLY LESS EXPENSIVE THAN A SANITARY LANDFILL).
- USE WASTE AND RECYCLING HAULERS/FACILITIES APPROVED BY THE LOCAL JURISDICTION.

APPLICATIONS

PERMITTER CONTROL

SLOPE PROTECTION

SEDIMENT TRAPPING

CHANNEL PROTECTION

TEMPORARY STABILIZATION

PERMANENT STABILIZATION

WASTE MANAGEMENT

HOUSEKEEPING PRACTICES

TARGETED CONSTITUENTS

- o SEDIMENT
- o NUTRIENTS/TOXIC MATERIALS
- o OIL & GREASE
- o FLOATABLE MATERIALS
- o OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- o SUITABILITY FOR SLOPES > 5%

LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- o LOW IMPACT
- UNKNOWN OR QUESTIONABLE IMPACT

M-1

<h1>DEBRIS AND TRASH MANAGEMENT</h1>	<h1>APPLICATIONS</h1>
<h2>EDUCATION</h2> <ul style="list-style-type: none"> o EDUCATE ALL WORKERS ON SOLID WASTE STORAGE AND DISPOSAL PROCEDURES. o INSTRUCT WORKERS IN IDENTIFICATION OF SOLID WASTE AND HAZARDOUS WASTE. o HAVE REGULAR MEETINGS TO DISCUSS AND REINFORCE DISPOSAL PROCEDURES (INCORPORATE IN REGULAR SAFETY SEMINARS). o CLEARLY MARK ON ALL DEBRIS AND TRASH CONTAINERS WHICH MATERIALS ARE ACCEPTABLE. <h2>QUALITY CONTROL</h2> <ul style="list-style-type: none"> o FOREMAN AND/OR CONSTRUCTION SUPERVISOR SHALL MONITOR ON-SITE SOLID WASTE STORAGE AND DISPOSAL PROCEDURES. o DISCIPLINE WORKERS WHO REPEATEDLY VIOLATE PROCEDURES. <h2>REQUIREMENTS</h2> <ul style="list-style-type: none"> o JOB-SITE WASTE HANDLING AND DISPOSAL, EDUCATION AND AWARENESS PROGRAM. o COMPLIANCE BY WORKERS. o SUFFICIENT AND APPROPRIATE WASTE STORAGE CONTAINERS. o TIMELY REMOVAL OF STORED SOLID WASTE MATERIALS. o TRAINING WORKERS AND MONITORING COMPLIANCE. <h2>LIMITATIONS</h2> <p>ONLY ADDRESSES NON-HAZARDOUS SOLID WASTE. ONE PART OF A COMPREHENSIVE CONSTRUCTION SITE MANAGEMENT PROGRAM.</p>	<p>PERMETER CONTROL</p> <p>SLOPE PROTECTION</p> <p>SEDIMENT TRAPPING</p> <p>CHANNEL PROTECTION</p> <p>TEMPORARY STABILIZATION</p> <p>PERMANENT STABILIZATION</p> <div style="border: 1px solid black; padding: 2px; display: inline-block;">WASTE MANAGEMENT</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">HOUSEKEEPING PRACTICES</div>
	<h2>TARGETED CONSTITUENTS</h2> <ul style="list-style-type: none"> o SEDIMENT o NUTRIENTS TOXIC MATERIALS o OIL & GREASE o FLOATABLE MATERIALS o OTHER CONSTRUCTION WASTES <h2>IMPLEMENTATION REQUIREMENTS</h2> <ul style="list-style-type: none"> ● CAPITAL COST ● MAINTENANCE ● TRAINING o SUITABILITY FOR SLOPES > 5% <h2>LEGEND</h2> <ul style="list-style-type: none"> ● SIGNIFICANT IMPACT ● MEDIUM IMPACT o LOW IMPACT † UNKNOWN OR QUESTIONABLE IMPACT
	<h2>M-1</h2>

CHEMICAL MANAGEMENT	APPLICATIONS
<p>DESCRIPTION</p> <p>CHEMICAL MANAGEMENT ADDRESSES THE PROBLEM OF STORM WATER POLLUTED WITH CHEMICAL POLLUTANTS THROUGH SPILLS OR OTHER FORMS OF CONTACT. THE OBJECTIVE OF THE CHEMICAL MANAGEMENT IS TO MINIMIZE THE POTENTIAL OF STORM WATER CONTAMINATION FROM CONSTRUCTION CHEMICALS THROUGH APPROPRIATE RECOGNITION, HANDLING, STORAGE, AND DISPOSAL PRACTICES.</p> <p>IT IS NOT THE INTENT OF CHEMICAL MANAGEMENT TO SUPERSEDE OR REPLACE NORMAL SITE ASSESSMENT AND REMEDIATION PROCEDURES. SIGNIFICANT SPILLS AND/OR CONTAMINATION WARRANT IMMEDIATE RESPONSE BY TRAINED PROFESSIONALS. SUSPECTED JOB-SITE CONTAMINATION SHOULD BE IMMEDIATELY REPORTED TO REGULATORY AGENCIES AND SUPERVISORS. SIGNIFICANT SPILLS SHOULD BE REPORTED TO THE NATIONAL RESPONSE CENTER (NRC) AT (800) 424-8802.</p>	<p>PERMITTER CONTROL</p> <p>SLOPE PROTECTION</p> <p>SEDIMENT TRAPPING</p> <p>CHANNEL PROTECTION</p> <p>TEMPORARY STABILIZATION</p> <p>PERMANENT STABILIZATION</p> <div data-bbox="744 1457 857 1483"> <div>WASTE MANAGEMENT</div> <div>HOUSEKEEPING PRACTICES</div> </div>
<p>PRIMARY USE</p> <p>THESE MANAGEMENT PRACTICES ALONG WITH APPLICABLE OSHA AND EPA GUIDELINES SHOULD BE INCORPORATED AT ALL CONSTRUCTION SITES THAT USE OR GENERATE HAZARDOUS WASTES. MANY CHEMICALS SUCH AS FUEL, OIL, GREASE, FERTILIZER, AND PESTICIDE ARE PRESENT AT MOST CONSTRUCTION SITES.</p>	<p>TARGETED CONSTITUENTS</p> <ul style="list-style-type: none"> ○ SEDIMENT ● NUTRIENTS TOXIC MATERIALS ● OIL & GREASE ○ FLOATABLE MATERIALS ● OTHER CONSTRUCTION WASTES
<p>INSTALLATION, APPLICATION AND DISPOSAL CRITERIA</p> <p>THE CHEMICAL MANAGEMENT TECHNIQUES PRESENTED HERE ARE BASED ON PROPER RECORDING, HANDLING, STORAGE, AND DISPOSAL OF HAZARDOUS WASTES AND SUPERVISORS. KEY ELEMENTS ARE EDUCATION, PROPER DISPOSAL PRACTICES, AS WELL AS PROVISIONS FOR SAFE STORAGE AND DISPOSAL. FOLLOWING ARE LISTS DESCRIBING THE TARGETED MATERIALS AND THE RECOMMENDED PROCEDURES:</p> <ul style="list-style-type: none"> ○ TARGETED CHEMICAL MATERIALS <ul style="list-style-type: none"> PAINTS SOLVENTS STAINS WOOD PRESERVATIVES CUTTING OILS GRIPPING TAR PESTICIDES, HERBICIDES, & FERTILIZER FUELS & LUBE OILS ANTIFREEZE 	<p>IMPLEMENTATION REQUIREMENTS</p> <ul style="list-style-type: none"> ● CAPITAL COST ● MAINTENANCE ● TRAINING ○ SUITABILITY FOR SLOPES > 5%
<p>STORAGE PROCEDURES</p> <ul style="list-style-type: none"> ● WHEREVER POSSIBLE, MINIMIZE USE OF HAZARDOUS MATERIALS. ● MINIMIZE GENERATION OF HAZARDOUS WASTES ON THE JOB-SITE. ● SEGREGATE POTENTIALLY HAZARDOUS WASTE FROM NON HAZARDOUS CONSTRUCTION SITE DEBRIS. ● DESIGNATE A FOREMAN OR SUPERVISOR TO OVERSEE HAZARDOUS MATERIALS HANDLING PROCEDURES. ● STORE CHEMICALS IN APPROPRIATE CONTAINERS (CLOSED DRUMS OR SIMILAR) AND UNDER COVER. ● STORE CHEMICALS AWAY FROM DRAINAGE DITCHES, SWALES AND CATCH BASINS. ● DISPOSE CONTAINERS IN FUELING AND MAINTENANCE AREAS WHERE THE POTENTIAL FOR SPILLS IS HIGH. 	<p>LEGEND</p> <ul style="list-style-type: none"> ● SIGNIFICANT IMPACT ○ MEDIUM IMPACT ○ LOW IMPACT ? UNKNOWN OR QUESTIONABLE IMPACT
<p>WASTE HANDLING</p> <ul style="list-style-type: none"> ● ENSURE THAT ADEQUATE HAZARDOUS WASTE STORAGE VESSEL IS AVAILABLE. ● ENSURE THAT HAZARDOUS WASTE COLLECTION CONTAINERS ARE CONVENIENTLY LOCATED. ● DO NOT ALLOW POTENTIALLY HAZARDOUS WASTE MATERIALS TO ACCUMULATE. ● SECURE HAZARDOUS WASTE HANDLING AND DISPOSAL PROCEDURES. ● CLEARLY MARK ON ALL HAZARDOUS WASTE CONTAINERS WHICH MATERIALS ARE ACCEPTABLE FOR THE CONTAINER. <p>DISPOSAL PROCEDURES</p> <ul style="list-style-type: none"> ● ENSURE THAT ADEQUATE CLEANUP AND CONTAINMENT MATERIALS ARE AVAILABLE ON-SITE. ● REGULARLY SCHEDULE HAZARDOUS WASTE REMOVAL TO MINIMIZE ON-SITE STORAGE. ● USE ONLY LICENSED HAZARDOUS WASTE HAULERS. 	<p>M-2</p>

CHEMICAL MANAGEMENT	APPLICATIONS
EDUCATION <ul style="list-style-type: none"> ■ INSTRUCT WORKERS ON SAFETY PROCEDURES FOR CONSTRUCTION SITE CHEMICAL STORAGE. ■ INSTRUCT WORKERS IN IDENTIFICATION OF CHEMICAL POLLUTANTS. ■ ENSURE THAT WORKERS ARE TRAINED IN PROCEDURES FOR SPILL PREVENTION AND RESPONSE. ■ EDUCATE WORKERS OF POTENTIAL DANGERS TO HUMANS AND THE ENVIRONMENT FROM CHEMICAL POLLUTANTS. ■ EDUCATE ALL WORKERS ON CHEMICAL STORAGE AND DISPOSAL PROCEDURES. ■ HAVE REGULAR MEETINGS TO DISCUSS AND REINFORCE IDENTIFICATION, HANDLING, AND DISPOSAL PROCEDURES (INCORPORATE IN REGULAR SAFETY SEMINARS). ■ ESTABLISH A CONTINUING EDUCATION PROGRAM TO INDICOTRATE NEW EMPLOYEES. 	PERMITTER CONTROL SOLE PROTECTION SEDIMENT TRAPPING CHANNEL PROTECTION TEMPORARY STABILIZATION PERMANENT STABILIZATION <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">WASTE MANAGEMENT</div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">HOUSEKEEPING PRACTICES</div>
QUALITY ASSURANCE <ul style="list-style-type: none"> ■ FOREMAN AND/OR CONSTRUCTION SUPERVISOR SHALL MONITOR ON-SITE CHEMICAL STORAGE AND DISPOSAL PROCEDURES. ■ EDUCATE AND IF NECESSARY, DISCIPLINE WORKERS WHO VIOLATE PROCEDURES. ■ ENSURE THAT THE HAZARDOUS WASTE DISPOSAL CONTRACTOR IS REPUTABLE AND LICENSED. 	TARGETED CONSTITUENTS <ul style="list-style-type: none"> ● O SEDIMENT ● NUTRIENTS TOXIC MATERIALS ● CL & GREASE ● FLOATABLE MATERIALS ● OTHER CONSTRUCTION WASTES
REQUIREMENTS <ul style="list-style-type: none"> ■ JOB-SITE CHEMICAL AND HAZARDOUS WASTE HANDLING AND DISPOSAL EDUCATION AND SMALLER SITES PROGRAM. ■ COMMITMENT BY MANAGEMENT TO IMPLEMENT CHEMICAL STORAGE AND HAZARDOUS WASTE MANAGEMENT PRACTICES. ■ COMPLIANCE BY WORKERS. ■ SUFFICIENT AND APPROPRIATE CHEMICAL AND HAZARDOUS WASTE STORAGE CONTAINERS. ■ TIMELY REMOVAL OF STORED HAZARDOUS WASTE MATERIALS. 	IMPLEMENTATION REQUIREMENTS <ul style="list-style-type: none"> ● CAPITAL COST ● MAINTENANCE ● TRAINING ● SUITABILITY FOR SLOPES > 5%
COST <ul style="list-style-type: none"> ■ POSSIBLE MODEST COST IMPACT FOR ADDITIONAL CHEMICAL STORAGE CONTAINERS. ■ SMALL COST IMPACT FOR TRAINING AND MONITORING. ■ POTENTIAL COST IMPACT FOR HAZARDOUS WASTE COLLECTION AND DISPOSAL BY LICENSED HAULER – ACTUAL COST DEPENDS ON TYPE OF MATERIAL AND VOLUME. 	
LIMITATIONS <p>THIS PRACTICE IS NOT INTENDED TO ADDRESS SITE-ASSESSMENTS AND PRE-EXISTING CONTAMINATION, MAJOR CONTAMINATION, LARGE SPILLS AND OTHER SERIOUS HAZARDOUS WASTE INCIDENTS REQUIRE IMMEDIATE RESPONSE FROM SPECIALISTS.</p> <p>DEMOLITION ACTIVITIES AND POTENTIAL PRE-EXISTING MATERIALS, SUCH AS LEAD AND ASBESTOS, ARE NOT ADDRESSED BY THIS PROGRAM. SITE-SPECIFIC INFORMATION ON PLANS IS NECESSARY.</p> <p>CONTAMINATED SOILS ARE NOT ADDRESSED.</p>	LEGEND <ul style="list-style-type: none"> ■ SIGNIFICANT IMPACT ● MEDIUM IMPACT ○ LOW IMPACT ? UNKNOWN OR QUESTIONABLE IMPACT
	<div style="text-align: center; font-weight: bold; font-size: 1.2em;">M-2</div>

CONCRETE WASTE MANAGEMENT	APPLICATIONS
<p>DESCRIPTION</p> <p>CONCRETE MIXED AT CONSTRUCTION SITES COMES IN TWO FORMS: 1) EXCESS FRESH CONCRETE MIX INCLUDING TRUCK AND EQUIPMENT WASHING, AND 2) CONCRETE DUST AND CONCRETE DEBRIS RESULTING FROM DEMOLITION, BOTH FORMS HAVE THE POTENTIAL TO IMPACT WATER QUALITY THROUGH STORM WATER RUNOFF CONTACT WITH THE WASTE.</p>	<p>PERMITTER CONTROL</p> <p>SLOPE PROTECTION</p> <p>SEDMIMENT TRAPPING</p> <p>CHANNEL PROTECTION</p> <p>TEMPORARY STABILIZATION</p> <p>PERMANENT STABILIZATION</p>
<p>PRIMARY USE</p> <p>CONCRETE WASTE IS PRESENT AT MOST CONSTRUCTION SITES. THIS BMP SHOULD BE UTILIZED AT SITES IN WHICH CONCRETE WASTE IS PRESENT.</p>	<p>WASTE MANAGEMENT</p> <p>HOUSEKEEPING PRACTICES</p>
<p>APPLICATIONS</p> <p>A NUMBER OF WATER QUALITY PARAMETERS CAN BE AFFECTED BY INTRODUCTION OF CONCRETE – ESPECIALLY FRESH CONCRETE. CONCRETE IMPACTS THE pH OF RUNOFF. CONCRETE IS AN IMPORTANT SOURCE OF SILICA IN WATER BODIES AND HARBORING AQUATIC LIFE. SUSPENDED SOLIDS IN THE FORM OF BOTH FINEM AND AGGREGATE DUST ARE ALSO GENERATED FROM BOTH FRESH AND DEMOLISHED CONCRETE WASTE.</p>	<p>TARGETED CONTROLS</p> <ul style="list-style-type: none"> ● SEDIMENT ● NUTRIENTS TOXIC MATERIALS ● OIL & GREASE ● FLOATABLE MATERIALS ● OTHER CONSTRUCTION WASTES
<p>UNACCEPTABLE CONCRETE WASTE DISPOSAL PRACTICES</p> <ul style="list-style-type: none"> ● DUMPING IN VACANT AREAS ON THE JOB-SITE. ● ILLICIT DUMPING OFF-SITE. ● DUMPING INTO DITCHES OR DRAINAGE FACILITIES. 	
<p>RECOMMENDED DISPOSAL PRACTICES</p> <ul style="list-style-type: none"> ● AVOID UNACCEPTABLE DISPOSAL PRACTICES LISTED ABOVE. ● DEVELOP PREDETERMINED, SAFE CONCRETE DISPOSAL AREAS. ● LOCATE AREAS WITH A WASHOUT AREA WITH A MINIMUM OF 6 CUBIC YD OF CONTAINMENT AREA VOLUME FOR EVERY 10 CUBIC YARDS OF CONCRETE POURED. ● NEVER DUMP WASTE INTO ANY AREA WITHOUT PROPERTY OWNER'S KNOWLEDGE AND CONSENT. ● EXPOSURE OF WASHOUT WATER SHALL BE DISCHARGED IN AN AREA PROTECTED BY ONE OR MORE SEDIMENT REMOVAL BMPs AND SHALL BE DONE IN A MANNER THAT DOES NOT RESULT IN A VIOLATION OF GROUNDWATER OR SURFACE WATER QUALITY STANDARDS. 	<p>IMPLEMENTATION REQUIREMENTS</p> <ul style="list-style-type: none"> ● CAPITAL COSTS ● MAINTENANCE ● TRAINING ● SUITABILITY FOR SLOPES > 3%
<p>EDUCATION</p> <ul style="list-style-type: none"> ● DRIVERS AND EQUIPMENT OPERATORS SHOULD BE INSTRUCTED ON PROPER DISPOSAL AND EQUIPMENT WASHING PRACTICES (SEE ABOVE). ● SUPERVISORS MUST BE MADE AWARE OF THE POTENTIAL ENVIRONMENTAL CONSEQUENCES OF IMPROPERLY HANDLED CONCRETE WASTE. 	
<p>ENFORCEMENT</p> <ul style="list-style-type: none"> ● THE CONSTRUCTION SITE MANAGER OR FOREMAN MUST ENSURE THAT EMPLOYEES AND FREELANCE CONTRACTORS FOLLOW PROPER PROCEDURES FOR CONCRETE DISPOSAL AND EQUIPMENT WASHING. ● EMPLOYEES VIOLATING DISPOSAL OR EQUIPMENT CLEANING DIRECTIVES MUST BE RECALLED OR DISCIPLINED IF NECESSARY. 	<p>LEGEND</p> <ul style="list-style-type: none"> ● SIGNIFICANT IMPACT ● MEDIUM IMPACT ● LOW IMPACT ● UNKNOWN OR QUESTIONABLE IMPACT
<p>DEMOLITION PRACTICES</p> <ul style="list-style-type: none"> ● MONITOR WEATHER AND WIND DIRECTION TO ENSURE CONCRETE IS NOT ENTERING DRAINAGE STRUCTURES AND SURFACE WATER. ● WHEN APPROPRIATE, CONSTRUCT SEDIMENT TRAPS OR OTHER TYPES OF SEDIMENT DETENTION DEVICES DOWNSTREAM OF DEMOLITION ACTIVITIES. 	
<p>REQUIREMENTS</p> <ul style="list-style-type: none"> ● USE PREDETERMINED DISPOSAL SITES FOR WASTE CONCRETE. ● PROHIBIT DUMPING WASTE CONCRETE IN ANYWHERE BUT PREDETERMINED AREAS. ● ASSIGN PREDETERMINED TRUCK AND EQUIPMENT WASHING AREAS. ● INSTRUCT EMPLOYERS AND OPERATORS ON PROPER DISPOSAL AND EQUIPMENT CLEANING PROCEDURES. 	<p>M-3</p>
<p>COSTS</p> <ul style="list-style-type: none"> ● MINIMAL COST IMPACT FOR TRAINING AND MONITORING. ● CONCRETE DISPOSAL COST DEPENDS ON AVAILABILITY AND DISTANCE TO SUITABLE DISPOSAL AREAS. ● ADDITIONAL COSTS INVOLVED IN EQUIPMENT WASHING COULD BE SIGNIFICANT. 	
<p>LIMITATIONS</p> <p>CONCRETE WASTE MANAGEMENT IS ONE PART OF A COMPREHENSIVE CONSTRUCTION SITE WASTE MANAGEMENT PROGRAM.</p>	

CONCRETE SAWCUTTING WASTE MANAGEMENT	APPLICATIONS
<p>DESCRIPTION</p> <p>SAW CUTTING OF CONCRETE PAVEMENT IS A ROUTINE PRACTICE, NECESSARY TO CONTROL SHRINKAGE, CRACKING IMMEDIATELY FOLLOWING PLACEMENT OF PLASTIC CONCRETE. IT IS ALSO USED TO REMOVE CURB SECTIONS AND PAVEMENT SECTIONS FOR PAVEMENT REPAIRS, UTILITY TRENCHES, AND DRIVEWAYS. SAWCUTTING FOR JOINTS INVOLVES SAWING A NARROW, SHALLOW GROOVE IN THE CONCRETE. WHILE SAWCUTTING FOR REMOVALS IS USUALLY DONE FULL DEPTH THROUGH THE SLAB. WATER IS USED TO CONTROL SAW SLURGE, TEMPERATURE, AND TO FLUSH THE DETRITUS FROM THE SAWED GROOVE. THE RESULTING SLURRY OF PROCESS WATER AND FINE PARTICLES AND HIGH PH MUST BE PROPERLY MANAGED.</p> <p>A NUMBER OF WATER QUALITY PARAMETERS CAN BE AFFECTED BY INTRODUCTION OF CONCRETE FINES. CONCRETE AFFECTS THE pH OF RUNOFF, CAUSING SIGNIFICANT CHEMICAL CHANGES TO WATER BODIES AND HARMING AQUATIC LIFE. SUSPENDED SOLIDS IN THE FORM OF SAW FINES ARE ALSO GENERATED FROM SAWCUTTING OPERATIONS.</p> <p>DESIGN CRITERIA</p> <p>SLURRY COLLECTION</p> <ul style="list-style-type: none"> ○ DURING SAW CUTTING OPERATIONS, THE SLURRY AND CUTTINGS SHALL BE CONTINUOUSLY VACUUMED TO CONTROL THE FLOW OF WATER FROM THE OPERATIONS SITE. ○ THE SLURRY AND CUTTINGS SHALL NOT BE ALLOWED TO DRAIN TO THE STORM DRAIN SYSTEM, SWALE, STREAM OR OTHER WATER BODY. ○ THE SLURRY AND CUTTINGS SHALL NOT BE ALLOWED TO REMAIN ON THE PAVEMENT TO DRY OUT. <p>SLURRY DISPOSAL</p> <ul style="list-style-type: none"> ○ DEVELOP PREDETERMINED, SAFE SLURRY DISPOSAL AREAS. ○ COLLECTED SLURRY AND CUTTINGS SHALL BE DISCHARGED IN AN AREA PROTECTED BY ONE OR MORE SEDIMENT REMOVAL BAPS AND SHALL BE DONE IN A MANNER THAT DOES NOT RESULT IN A VIOLATION OF GROUNDWATER OR SURFACE WATER QUALITY STANDARDS. ○ NEVER DUMP SLURRY ILICITLY OR WITHOUT PROPERTY OWNER'S KNOWLEDGE AND CONSENT. ○ SLURRY MAY BE DISPOSED OF IN FACILITIES DESIGNATED FOR WASHDOWN OF CONCRETE TRUCKS (SEE M-4, CONCRETE WASTE MANAGEMENT). <p>MAINTENANCE</p> <p>PROTECTIVE PERSONNEL SHOULD INSPECT THE OPERATIONS TO ASSURE THAT OPERATORS ARE FOLLOWING THE WASTE MANAGEMENT PLAN AND THAT ALL SAW CUTTING ACTIVITIES. FOLLOWING OPERATIONS THE PAVEMENT SHOULD BE INSPECTED TO ENSURE THAT WASTE REMOVAL HAS BEEN ADEQUATELY PERFORMED.</p>	<p>PERMETER CONTROL</p> <p>SLOPE PROTECTION</p> <p>SEDIMENT TRAPPING</p> <p>CHANNEL PROTECTION</p> <p>TEMPORARY STABILIZATION</p> <p>PERMANENT STABILIZATION</p> <p>WASTE MANAGEMENT</p> <p>HOUSEKEEPING PRACTICES</p>
	<p>TARGETED CONSTITUENTS</p> <ul style="list-style-type: none"> ○ SEDIMENT ○ NUTRIENTS TOXIC MATERIALS ○ OIL & GREASE ○ FLOATABLE MATERIALS ○ OTHER CONSTRUCTION WASTES <p>IMPLEMENTATION REQUIREMENTS</p> <ul style="list-style-type: none"> ○ CAPITAL COST ● MAINTENANCE ● TRAINING ○ SUITABILITY FOR SLOPES > 5% <p>LEGEND</p> <ul style="list-style-type: none"> ○ SIGNIFICANT IMPACT ● MEDIUM IMPACT ○ LOW IMPACT ? UNKNOWN OR QUESTIONABLE IMPACT
	<p>M-4</p>

LIME STABILIZATION MANAGEMENT

APPLICATIONS

PERMITEE CONTROL
SLOPE PROTECTION
SEDIMENT TRAPPING
CHANNEL PROTECTION
TEMPORARY STABILIZATION
PERMANENT STABILIZATION
WASTE MANAGEMENT
HOUSEKEEPING PRACTICES

DESCRIPTION

LIME STABILIZATION IS USED EXTENSIVELY IN THE NORTH CENTRAL TEXAS REGION TO STABILIZE PAVEMENT SUBBASES FOR ROADWAYS, PARKING LOTS, OTHER PAVED SURFACES, AND AS A STABILIZATION MECHANISM FOR BUILDING PILES. STABILIZED LIME IS APPLIED TO THE SOIL AND MIXED THROUGH DISKING AND OTHER TECHNIQUES, THEN ALLOWED TO CURE. THIS PRACTICE WILL REDUCE THE POTENTIAL FOR RUNOFF TO CARRY LINE OFFSITE, WHERE IT MAY IMPACT AQUATIC LIFE BY CHANGING THE pH BALANCE OF STREAMS, PONDS, AND OTHER WATER BODIES.

PRIMARY USE:
THIS BMP SHOULD BE IMPLEMENTED WHEN LIME IS REQUIRED FOR SOIL STABILIZATION.

APPLICATIONS

LIME STABILIZATION CAN BE USED UNDER A VARIETY OF CONDITIONS. THE ENGINEER SHOULD DETERMINE THE APPLICABILITY OF LIME STABILIZATION BASED ON SITE CONDITIONS SUCH AS AVAILABLE OPEN SPACE, QUANTITY OF AREA TO BE STABILIZED, PROXIMITY OF NEARBY WATER COURSES AND OTHER BMPs EMPLOYED AT THE SITE. THE USE OF DIVERSION DICES AND INTERCEPTOR SWALES (SEE APPROPRIATE FACT SHEETS) TO DIVERT RUNOFF AWAY FROM AREAS TO BE STABILIZED CAN BE USED IN CONJUNCTION WITH THESE TECHNIQUES TO REDUCE THE IMPACT OF THE LIME.

DESIGN CRITERIA

- THE CONTRACTOR SHALL LIMIT LIME OPERATIONS TO THAT WHICH CAN BE THOROUGHLY MIXED AND COMPACTED BY THE END OF EACH WORKDAY.
- NO TRAFFIC OTHER THAN WATER TRUCKS AND MIXING EQUIPMENT SHALL BE ALLOWED TO PASS OVER THE SPREAD LIME UNTIL AFTER COMPLETION OF MIXING.
- AREAS ADJACENT AND DOWNSTREAM OF STABILIZED AREAS SHALL BE ROUGHENED TO INTERCEPT LIME FROM RUNOFF AND REDUCE RUNOFF VELOCITY.
- GEOTEXTILE FABRICS SUCH AS THOSE USED FOR SILT FENCE SHOULD NOT BE USED TO ADDRESS LIME SINCE THE GRAIN SIZE OF LIME IS SIGNIFICANTLY SMALLER THAN THE APPARENT OPENING SIZE OF THE FABRIC.
- FOR AREAS FOR WHICH PHASING OF LIME OPERATIONS IS IMPRACTICAL, USE OF A CURING SEAL SUCH AS LIQUID ASPHALT, GRADE MC-280 OR MC-800 APPLIED AT A RATE OF 0.15 GALLONS PER SQ. YD. OF SURFACE CAN BE USED TO PROTECT THE BASE.
- USE OF SEDIMENT BASINS WITH A SIGNIFICANT (>36 HOUR) DRAWDOWN TIME IS ENCOURAGED FOR LARGE AREAS TO BE STABILIZED (SUCH AS SEDIMENT BASINS).
- PROVIDE CONTAINMENT AROUND LIME STORAGE, LOADING, AND DISPENSING AREAS.

LIMITATIONS

LIME STABILIZATION CAN BE PART OF AN OVERALL PLAN TO REDUCE POLLUTANTS FROM AN ACTIVE CONSTRUCTION SITE. IN CASE OF POLLUTION DUE TO LIME PREVENTION OF CONTAMINATION IS THE ONLY EFFECTIVE METHOD TO ADDRESS THIS POLLUTANT. PROPER APPLICATION AND MIXING ALONG WITH AVOIDING APPLICATIONS WHEN THERE IS A SIGNIFICANT PROBABILITY OF RAIN WILL REDUCE LIME RUNOFF.

TARGETED CONDITIONS

- SEDIMENT
- NUTRIENTS TOXIC MATERIALS
- OIL & GREASE
- FLOATABLE MATERIALS
- OTHER CONSTRUCTION WASTES

IMPLEMENTATION REQUIREMENTS

- CAPITAL COST
- MAINTENANCE
- TRAINING
- SUITABILITY FOR SLOPES > 5%

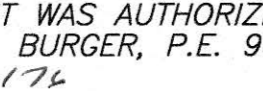
LEGEND

- SIGNIFICANT IMPACT
- MEDIUM IMPACT
- LOW IMPACT
- UNKNOWN OR QUESTIONABLE IMPACT

M-6

SANITARY FACILITIES	
<p>DESCRIPTION</p> <p>FACILITIES FOR COLLECTION AND DISPOSAL OF SANITARY WASTE MUST BE PROVIDED AND PROPERLY MANAGED TO MINIMIZE THE POTENTIAL CONTAMINATION OF SURFACE WATER WITH SEPTIC WASTES. LOCATION OF PORTABLE FACILITIES AWAY FROM STORM DRAIN SYSTEMS AND SURFACE WATERS OR CONTAMINANT IS NECESSARY IN CASE OF SPILLS.</p> <p>PROCEDURES</p> <ul style="list-style-type: none"> 1. SANITARY FACILITIES MUST BE PROVIDED ON THE SITE IN CLOSE PROXIMITY TO AREAS WHERE PEOPLE ARE WORKING. 2. PORTABLE TOILETS MUST BE PROVIDED IF NO PERMANENT FACILITIES ARE AVAILABLE. 3. LOCATE PORTABLE TOILETS A MINIMUM OF 20 FEET AWAY FROM STORM DRAIN INLETS, CONVEYANCE CHANNELS, OR SURFACE WATERS. 4. IF UNABLE TO MEET 20-FOOT DISTANCE REQUIREMENT, PROVIDE CONTAINMENT FOR PORTABLE TOILETS. 5. PORTABLE TOILETS SHOULD BE REGULARLY SERVICED. 	<p>APPLICATIONS</p> <p>PERIMETER CONTROL SLOPE PROTECTION SEDIMENT TRAPPING CHANNEL PROTECTION TEMPORARY STABILIZATION PERMANENT STABILIZATION</p> <p>WASTE MANAGEMENT</p> <p>HOUSEKEEPING PRACTICES</p> <p>TARGETED CONTAMINANTS</p> <ul style="list-style-type: none"> ○ SEDIMENT ● NUTRIENTS TOXIC MATERIALS ○ OIL & GREASE ○ FLOATABLE MATERIALS ● OTHER CONSTRUCTION WASTES <p>IMPLEMENTATION REQUIREMENTS</p> <ul style="list-style-type: none"> ○ CAPITAL COST ● MAINTENANCE ○ TRAINING ○ SUITABILITY FOR SLOPES > 5% <p>LEGEND</p> <ul style="list-style-type: none"> ● SIGNIFICANT IMPACT ◐ MEDIUM IMPACT ○ LOW IMPACT ? UNKNOWN OR QUESTIONABLE IMPACT <p>M-7</p>

As-Built: 6.22.17

<p>THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY BRYAN M. BURGER, P.E. 90880 ON 10-2-76</p>		
		
<p>EROSION CONTROL DETAILS</p>		
<p>ALDI FOOD MARKET</p>		
<p>LOT 1, BLOCK A – RIDGE/SUMMER LEE ADDITION</p>		
<p>THE CITY OF ROCKWALL, TEXAS</p>		
<p>BURGER ENGINEERING Civil Consultants</p>		
<p>17103 Preston Road, Suite 180N Dallas, Texas 75248 Office: 972.630.3360 Fax: 972.630.3380 BTPE F-12997</p>		
DESIGN	DRAWN	DATE
BMB	JAC	6/16
SCALE		NOTES
		D.P.
FILE		NO.
007-116 EROS DETAILS		C-8.2

PETER TEMUNOVIC AND
CIVIETA TEMUNOVIC
VOL. 959, PG. 150
R.P.R.C.T.
(VACANT)

SUMMER LEE DRIVE
(65' RIGHT-OF-WAY)

LAYOUT NOTES

- 1 PAINTED HANDICAP PARKING SYMBOL
- 2 PARKING STALLS / 4" PAINTED STRIPE (YELLOW - 2 COATS)
- 3 DIRECTIONAL SIGNAGE
- 4 INTEGRAL CONCRETE CURB
- 5 TYPICAL BUILDING SIDEWALK (REF. ARCH. PLANS FOR DETAILS)
- 6 TURN DOWN CURB
- 7 STRIPING
- 8 STRIPING W/ "NO PARKING" WORDS
- 9 CONCRETE PAVEMENT
- 10 EX. PAD MOUNTED TRANSFORMER
- 11 DUMPSTER / STORAGE AREA W/SCREENING
- 12 EX. MONUMENT SIGN
- 13 EX. PYLON SIGN (NOT USED)
- 14 MATCH LOCATION & ELEVATION OF EX. CONCRETE CURB
- 15 MATCH EX. CONCRETE SIDEWALK
- 16 EX. DIRECTIONAL SIGNAGE
- 17 EX. GAS METER
- 18 ADJUST EX. LANDSCAPING & IRRIGATION (REF. LANDSCAPE PLAN)
- 19 EX. PIPE BOLLARD

- 20 EX. FIRE LANE STRIPING
- 21 MATCH EX. FIRE LANE STRIPE
- 22 FIRE LANE STRIPING
- 23 EX. STRIPING
- 24 MATCH EX. CONCRETE PAVEMENT
- 25 EX. PAINTED STRIPE
- 26 MATCH EX. STRIPING
- 27 PROP. CANOPY (REF. ARCH. PLANS FOR DETAILS)
- 28 PROP. PIPE BOLLARD (REF. ARCH. PLANS FOR DETAILS)
- 29 PROP. F.D.C. LOCATION
- 30 END CURB @ BUILDING (NOT USED)
- 31 PROP. CART STORAGE AREA (REF. ARCH. PLANS FOR DETAILS)
- 32 EX. TREE TO REMAIN
- 33 RADIUS PROTECTION (NOT USED)
- 34 EX. RADIUS PROTECTION / CONC. STEP OUT
- 35 1' CURB OPENING (NOT USED)
- 36 CURB TURN DOWN (NOT USED)
- 37 EX. INLET
- 38 EX. LIGHT POLE
- 39 RELOCATED OAK TREE
- 40 CURBED RAMP "A" FLARED SIDES
"B" SHORT FLARED SIDES

LANDSCAPE TABULATIONS

SITE REQUIREMENTS (site area 112,194 s.f.)
Requirements: 15% site area to be landscaped

Required: 16,830 s.f. (15%)
Provided: 45,629 s.f. (40.67%)

FRONT YARD REQUIREMENTS
Requirements: 50% of required landscape must be located in front yard

Required: 8,414 s.f. (50%)
Provided: 17,826 s.f.

STREET REQUIREMENTS
Requirements: (1) tree 3" cal. per 50 l.f. of frontage

SUMMER LEE DRIVE (314.53 l.f.)
Required: (6) trees, 3" cal.
Provided: (6) ex. trees, 4" - 3" cal.

STREET REQUIREMENTS: SCENIC OVERLAY
Requirements: (3) canopy tree 4" cal. and (4) accent trees, 4" ht. per 100 l.f. of frontage

RIDGE ROAD (426.66 l.f.)
Required: (12) trees, 4" cal.
Provided: (10) ex. trees, 4" - 3" cal.
(17) trees, 4" ht.

PARKING LOT (74 spaces; 40,588 s.f.)
Requirements: 5% of total parking lot area and (1) tree, 3" cal. per 20 parking spaces

Required: (4) trees, 3" cal.
Provided: (4) ex. trees, 3" cal.
2,029 s.f. (5%) 2,380 s.f. 5%

EXISTING TREE LEGEND

- NEW TRANSPLANT TREE LOCATION
- EXISTING TREE TO BE TRANSPLANTED
- EXISTING TREE OFF-SITE

TRANSPLANT NOTES

1. Trees shall have ten (10") inches of rootball width for every one (1") inch caliper of tree.
2. Trees shall have one-fourth (1/4) the height of the tree in rootball depth.
3. Trees shall be dug either by hand or by the use of a tree spade. Tree spade shall be a minimum of 60".
4. Contractor shall be responsible for maintaining all transplanted trees in the event they are unable to replace them immediately after digging. Contractor shall coordinate with other trades such that digging and replanting can occur simultaneously.
5. In the event transplanted trees have to be held on site, it shall be the responsibility of the Contractor to maintain the trees in a healthy and growing condition.
6. The following list shall be used as guidelines only for holding of trees on site:
 - a. Trees shall be set on grade with the rootball completely covered with compost and mulch. No rootball shall be exposed.
 - b. Trees shall be wired and staked such that they will not blow over.
 - c. Trees shall be watered daily by hand or a temporary drip/trickle irrigation system installed.
7. Replanting trees shall follow the same planting techniques as outlined in the Landscape Specifications.

IRRIGATION REPAIR SPECIFICATIONS

1. Contractor shall perform site visit prior to bidding and construction, to review extent of existing irrigation system.
2. Contractor shall be responsible for verifying conditions of existing irrigation system. Contractor shall be responsible for maintaining the integrity of existing irrigation where possible, and if not, repair as needed, including but not limited to irrigation controller, meter, sleeving, etc.

LANDSCAPE NOTES

1. Contractor shall verify all existing and proposed site elements and notify Architect of any discrepancies. Survey data of existing conditions was supplied by others.
2. Contractor shall locate all existing underground utilities and notify Architect of any conflicts. Contractor shall exercise caution when working in the vicinity of underground utilities.
3. Contractor is responsible for obtaining all required landscape and irrigation permits.
4. Contractor to provide a minimum 2% slope away from all structures.
5. All planting beds and lawn areas to be separated by steel edging. No steel to be installed adjacent to sidewalks or curbs.
6. All landscape areas to be 100% irrigated with an underground automatic irrigation system and shall include rain and freeze sensors.
7. All lawn areas to be Solid Sod Bermudagrass, unless otherwise noted on the drawings.

MAINTENANCE NOTES

1. The Owner, tenant and their agent, if any, shall be jointly and severally responsible for the maintenance of all landscape.
2. All landscape shall be maintained in a neat and orderly manner at all times. This shall include mowing, edging, pruning, fertilizing, watering, weeding and other such activities common to landscape maintenance.
3. All landscape areas shall be kept free of trash, litter, weeds and other such material or plants not part of this plan.
4. All plant material shall be maintained in a healthy and growing condition as is appropriate for the season of the year.
5. All plant material which dies shall be replaced with plant material of equal or better value.
6. Contractor shall provide separate bid proposal for one year's maintenance to begin after final acceptance.

EXISTING PLANT LIST

TREES				
TYPE	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
BC	Bald Cypress	<i>Taxodium distichum</i>	3" cal.	container grown, 13' ht., 4" spread min., 4" clear trunk
CP	Chinese Pistache	<i>Pistacia chinensis</i>	3" cal.	container grown, 13' ht., 4" spread min., 4" clear trunk
LO	Live Oak	<i>Quercus virginiana</i>	4" cal.	container grown, 14' ht., 5" spread min., 5" clear trunk
RO	Red Oak	<i>Quercus shumardii</i>	3" cal.	container grown, 13' ht., 4" spread min., 4" clear trunk
RB	Texas Redbud	<i>Cercis canadensis 'Texensis'</i>	5' ht.	B&B, single trunk

SHRUBS				
TYPE	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
DBH	Dwarf Burford Holly	<i>Ilex cornuta 'Burfordii nana'</i>	24" ht.	container grown, 24" ht. 36" o.c.

GROUNDCOVERS				
TYPE	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
WC	Wintercreeper	<i>Euonymus fortunei coloratus</i>	4" pots	container, (3) 12" runners min.
TV	Trumpet Vine	<i>Campsis radicans</i>	5 gal.	container, (6) 36" runners min.
	Common Bermudagrass	<i>Cynodon dactylon</i>	solid sod	refer to notes

NOTE: Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. All plant material shall meet or exceed remarks as indicated. All trees to have straight trunks and be matching within varieties.

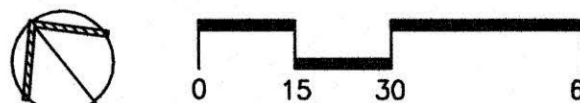
LAWN REPAIR NOTES

1. All lawn areas damaged during construction to be repaired with solid sod and raked free of debris.
2. Adjust damaged areas to achieve positive drainage away from buildings. Provide uniform rounding at top and bottom of slopes and other breaks in grade. Correct irregularities and areas where water may stand.
3. All areas to be repaired must be planted by hand to cover area completely. Insure edges of sod are touching. Top dress joints by hand with compost to fill voids.
4. Roll repaired areas to achieve a smooth, even surface, free from unnatural undulations.

As-Built: 6-22-17

01 LANDSCAPE PLAN

SCALE: 1" = 30'-0"



REV.	DATE	REMARKS
LANDSCAPE PLAN		
ALDI FOOD MARKET		
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THE CITY OF ROCKWALL, TEXAS		
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DESIGN	DRAWN	DATE
BDA	BDA	10.31.16
SCALE	NOTES	FILE
1"=30'	D.P.	007-116 SITE PLAN
NO.	NO.	
	L-1	

smr
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Tel 214.871.0083
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NO.	RADIUS	DELTA	ARC	CH. BEARING	CHORD
C1	754.00'	13°04'52"	172.14'	N 08°45'08" W	171.77'
C2	3780.17'	00°48'02"	52.81'	N 06°26'25" E	52.81'
C3	1447.50'	09°36'24"	242.70'	S 77°01'39" E	242.42'
C4	1375.50'	02°49'51"	67.96'	S 70°48'31" E	67.96'

LOT 1, BLOCK A - SITE DATA	
SITE AREA:	2,575.7 AC. (112,197 S.F.)
ZONING DISTRICT:	GENERAL RETAIL (GR)
PROPOSED USE:	GROCERY STORE
EX. BUILDING AREA:	15,945 S.F.
PROP. BUILDING EXPANSION:	2,472 S.F.
TOTAL NEW BUILDING AREA:	18,417 S.F.
BUILDING HEIGHT:	28' (SINGLE STORY)
PARKING:	
REQUIRED: 1 SPACE/250 SF OF BUILDING AREA	74
PROVIDED:	74 (3 H.C.)
OFF-STREET LOADING:	
REQUIRED:	1
PROVIDED:	1
LANDSCAPE AREA:	
REQUIRED:	16,830 S.F. (15%)
PROVIDED:	45,629 S.F. (40.67%)
IMPERVIOUS AREA:	66,568 S.F. (59.33%)

