

CITY OF NORMAN, OK FLOODPLAIN PERMIT COMMITTEE MEETING

Development Center, Room B, 225 N. Webster Ave., Norman, OK 73069 Monday, June 03, 2024 at 3:30 PM

AGENDA

It is the policy of the City of Norman that no person or groups of persons shall on the grounds of race, color, religion, ancestry, national origin, age, place of birth, sex, sexual orientation, gender identity or expression, familial status, marital status, including marriage to a person of the same sex, disability, relation, or genetic information, be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination in employment activities or in all programs, services, or activities administered by the City, its recipients, sub-recipients, and contractors. In the event of any comments, complaints, modifications, accommodations, alternative formats, and auxiliary aids and services regarding accessibility or inclusion, please contact the ADA Technician at 405-366-5424, Relay Service: 711. To better serve you, five (5) business days' advance notice is preferred.

ROLL CALL

MINUTES

1. Approval of minutes from the May 6, 2024 meeting.

ACTION ITEMS

- 2. Floodplain Permit Application No. 690 This permit application is for the construction of a stormwater nature park on the northeast corner of the intersection of East Alameda Street and South Carter Ave.
- 3. Floodplain Permit Application No. 691 This permit application is for the installation of an outdoor rifle range at the existing City of Norman Police firing range located at 3800 Jenkins Ave.

MISCELLANEOUS COMMENTS

ADJOURNMENT



CITY OF NORMAN, OK FLOODPLAIN PERMIT COMMITTEE MEETING

Municipal Building, Executive Conference Room, 201 W Gray, Norman, OK 73069

Monday, May 06, 2024 at 3:30 PM

MINUTES

ROLL CALL

The meeting was called to order by Mr. Sturtz at 3:29 p.m. Roll was called and 6 members were present with 1 absent, Tim Miles. Others in attendance included, Jason Murphy, Stormwater Program Manager; Kim Freeman, Staff; Gary Keene, Engineer; Scott Anderson, Total Home Construction.

MINUTES

1. Approval of minutes from the February 5, 2024 meeting

Mr. Sturtz asked for any comments or questions from the committee. Hearing none, Mr. Sturtz called for a motion to approve the minutes from the meeting of February 5, 2024. The motion was made by Mr. Scanlon and seconded by Mr. Danner. The minutes were approved 6-0.

ACTION ITEMS

2. Floodplain Permit No. 689

Mr. Sturtz said the Application for Permit 689 is for proposed renovations of a residential structure in the Bishop Creek Watershed and also a little work on the driveway. Mr. Sturtz said the Applicant is Prosperous Properties, LLC, Builder is Total Homes Construction, LLC and the Engineer is Gary Keen, P.E. Mr. Sturtz asked Mr. Murphy to present the staff report. Mr. Murphy said this is an application for the residence located at 626 E. Comanche St. The Applicant is proposing to conduct remodeling work on the interior of the residence. The residence was originally constructed in 1930 and the BFE for this location is 1169.0'. The elevation of the finished floor in the structure is 1171.15'. Technically, the finished floor is already 2 feet above the BFE. In addition to the interior remodel, the applicant is requesting to replace the existing gravel driveway with a concrete driveway that would be at grade. No other work outside of the residence is indicated in the application.

Mr. Murphy reviewed plans and aerial maps of the project location provided to members in their packets.

Mr. Murphy confirmed all ordinance requirements have been met and said staff recommends Floodplain Permit Application No. 689 be approved with the condition that any mechanical and electrical equipment be elevated to an elevation of at least 1171' and that an elevation certificate be provided for the structure and the equipment.

Mr. Sturtz asked for comments from Mr. Keen. Mr. Keen had no comments. Mr. Sturtz asked for comments or questions from the committee. Ms. Hudson said she knows the driveway is still up in the air but asked for confirmation on paving the entire driveway or keeping the

Item 1. existing gravel drive up to a certain point. Mr. Keen responded they are asking for approval to replace the gravel drive from the street paving back to the fence right by the front edge of the house. Mr. Keene said we'll take out the gravel and soil to the depth of the concrete so the top of the concrete will be the same elevation as the ground is now. Mr. Keene said it is not certain that they will replace the driveway, they wanted to get approval to do it while they are here, but there is discussion going on as to whether they want to invest the additional money. Ms. Stansel asked if the permit is approved, they still have a two year limit. Mr. Sturtz confirmed and said they would have to come in and get a right of way permit to do that because this is in right of way. Mr. Keen said there is some question on whether the City would require a driveway when they come in for the remodel permit. Mr. Danner responded it would not be required by the City because it's a pre-existing condition. Mr. Scanlon wanted to comment that we are requiring the electrical and A/C components have to be elevated and he knows this isn't grounds for disapproval, but he is bothered a little about the storm shelter is underneath and would be submerged. Mr. Sturtz said this is a pre-existing condition and he has the same concern, but we are not allowing it to be put in. Mr. Keen said that if he had to write the report again, he would not call it a storm shelter, he would call it storage. Mr. Keen said speaking with Scott Anderson, who knows more about the house, he believes it has been used as more of a cellar and it does have storage shelves in it. Mr. Keen said when taking photos, he thought to himself it was a pretty safe place, but it doesn't meet all the requirements of a FEMA approved storm shelter. Mr. Keen said I think I called it wrong and it's here for us to discuss. Mr. Sturtz said the fact that we are recommending to go ahead and elevate the A/C units and the electrical brings the site into compliance with permitting regulations.

Mr. Sturtz asked for questions, comments or a motion. Ms. Hudson made a motion to approve Permit 689. Ms. Hoggatt seconded the motion. The committee voted to approve the application 6-0.

MISCELLANEOUS COMMENTS

Mr. Sturtz informed the committee the City received a letter with notice of a LOMR and will come before the committee for approval and then to City Council as part of our ordinance to update our maps. Mr. Sturtz confirmed there are no applications for the next meeting on May 20, 2024 and is cancelled.

ADJOURNMENT

Mr. Sturtz called for a motion to adjourn. Ms. Stansel motioned to adjourn and was seconded by Ms. Hoggatt. The meeting adjourned at 3:47 p.m.

Passed and approved this _____ day of _____, 2024

City of Norman Floodplain Administrator, Scott Sturtz

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Item 2.

ITEM: Floodplain Permit application for proposed construction of a stormwater nature park located at the northeast corner of E. Alameda St. and S. Carter Ave. in the Tributary B of Bishop Creek floodplain.

BACKGROUND:

APPLICANT: City of Norman ENGINEER: Reza Khakpour, P.E. (LMRK Engineering)

This project will provide a Nature Park in the heart of the City of Norman. The park features will include a play ground, walking trails, lookout station, and a raingarden. The park will allow the opportunity to provide compensatory storage for the stormwater to help with local flooding and an opportunity to showcase its use of low impact development (LID) features such as pervious pavement in the proposed parking area. It will also provide a chance to improve the stormwater quality for the overall watershed through features such as the rain garden. The proposed rain garden and lookout station will also be used for educational purposes to introduce the visitors to native vegetation and wetland functions.

The proposed park will be located on the northeast corner of the intersection of East Alameda Street and South Carter Avenue. The construction cost of the project is estimated at \$1,200,000. Tributary B of Bishop Creek is located within the limits of proposed park and the proposed improvement will impact that creek's floodplain area. The project engineer has submitted documentation that the proposed improvements will not adversely impact any of the neighboring properties.

STAFF ANALYSIS:

Site located in Little River Basin or Tributaries? yes $no \checkmark$

According to the latest DFIRM, portions of this project are located within the Bishop Creek floodplain and floodway (Zone AE).

Applicable Ordinance Sections:	Subject Area:
36-533 (e)(2)(a)	Fill restrictions in the floodplain
(e)(2)(e)	Compensatory storage
(f)(3)(8)	No rise considerations

(e)(2)(a) and (e)(2)(e) Fill Restrictions in the Floodplain and Compensatory Storage – The use of fill is restricted in the floodplain unless compensatory storage is provided.

The project engineer has indicated that 325 cubic yards are being brought into the floodplain for construction of the park features such as the parking lot, a retaining wall and small sections of the new trail system. There are 1185 cubic yards of fill being removed mostly from the observation area. This equates to an approximate net increase of 860 cubic yards of storage being created, thus meeting the ordinance requirements.

(f)(3)(8) No Rise Considerations – For proposed development within any flood hazard area (except for those designated as regulatory floodways), certification that a rise of no more than 0.05 ft. will occur in the BFE on any adjacent property as a result of the proposed work is required.

The project engineer has provided calculations indicating that the proposed project will cause no rise in the BFE on any adjacent properties. In addition, verification from a

USACE review of the project submitted by the applicant has confirmed that no adverse impact on the stream will occur and consequently no individual 404 permit is required.

RECOMMENDATION: Staff recommends Floodplain Permit Application #690 be approved.

ACTION TAKEN: _____



City of Norman

Floodplain Permit No.	1090

Floodplain Permit Application

Date 6/3/2024

FLOODPLAIN PERMIT APPLICATION

(\$100.00 Application Fee Required)

SECTION 1: GENERAL PROVISIONS (APPLICANT to read and sign):

- 1. No work may start until a permit is issued.
- 2. The permit may be revoked if any false statements are made herein.
- 3. If revoked, all work must cease until permit is re-issued.
- 4. Development shall not be used or occupied until a Certificate of Occupancy is issued.
- 5. The permit will expire if no work is commenced within 2 years of issuance.
- 6. Applicant is hereby informed that other permits may be required to fulfill local, state and federal regulatory requirements and must be included with this floodplain permit application.
- 7. Applicant hereby gives consent to the City of Norman or his/her representative to access the property to make reasonable inspections required to verify compliance.
- 8. The following floodplain modifications require approval by the City Council:
 - (a) A modification of the floodplain that results in a change of ten percent (10%) or more in the width of the floodplain.
 - (b) The construction of a pond with a water surface area of 5 acres or more.
 - (c) Any modifications of the stream banks or flow line within the area that would be regulatory floodway whether or not that channel has a regulatory floodplain, unless the work is being done by the City of Norman staff as part of a routine maintenance activity.

9. All supporting documentation required by this application is required along with the permit fee by the submittal deadline. Late or incomplete applications will not be accepted.

10. I, THE APPLICANT, CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.

SECTION 2: PROPOSED DEVELOPMENT (To be completed by APPLICANT.)

APPLICANT: The City of Norman Parks & Recreation Department	ADDRESS: 225 N. Webster Avenue, Norman, OK 73069
TELEPHONE: 405-366-5472	SIGNATURE:
BUILDER:	ADDRESS:
TELEPHONE:	SIGNATURE:
	ADDRESS: 7212 NW 129th Street, Oklahoma City, OK 73142
TELEPHONE:	SIGNATURE: Ry Kliken

PROJECT LOCATION

To avoid delay in processing the application, please provide enough information to easily identify the project location. Provide the street address, subdivision addition, lot number or legal description (attach) and, outside urban areas, the distance to the nearest intersecting road or well known landmark. A sketch attached to this application showing the project location would be helpful.

The proposed Nature Park area is located on the northeast corner of the intersection of E. Alameda Street and S. Carter Avenue.

Alameda Street and Carter Avenue will be the south and west boundaries of the park and Alameda Church of Christ will be the on the east side of the park.

The park will be approximately 2.5 acres in size and will have Bishop Creek running through its limits

DESCRIPTION OF WORK (Check all applicable boxes): A. STRUCTURAL DEVELOPMENT

<u>ACTIVITY</u> <u>STRUCTURE TYPE</u>

□ New Structure	□ Residential (1-4 Family)
□ Addition	□ Residential (More than 4 Family)
□ Alteration	□ Non-Residential (Flood proofing? □ Yes)
□ Relocation	Combined Use (Residential & Commercial)
Demolition	□ Manufactured (Mobile) Home
□ Replacement	□ In Manufactured Home Park? □ Yes

ESTIMATED COST OF PROJECT \$_____Work that involves substantial damage/substantial improvement requires detailed cost estimates and an appraisal of the structure that is being improved.

B. OTHER DEVELOPMENT ACTIVITIES:

- ☑ Fill ☐ Mining ☐ Drilling ☑ Grading
- Excavation (Beyond the minimum for Structural Development)
- U Watercourse Alteration (Including Dredging and Channel Modifications)
- Drainage Improvements (Including Culvert Work) DRoad, Street or Bridge Construction
- □ Subdivision (New or Expansion) □ Individual Water or Sewer System

In addition to items A. and B. provide a complete and detailed description of proposed work (failure to provide this item will be cause for the application to be rejected by staff). Attach additional sheets if necessary.

The park will include a parking lot and recreation/education area that will mainly be out of the floodplain area. The proposed rain garden area and trail system will encroach into the floodplain area however none of the proposed features that will be constructed

within the floodplain area will be permanent features that would significantly impede the movement of flow in the floodplain. The fill needed for the construction of the proposed parking lot will encroach into the floodplain area however the lowering of the floodplain in the

educational area on the south side of the creek provides compensatory storage to remediate the imm

C. ATTACHMENTS WHICH ARE REQUIRED WITH EVERY APPLICATION:

The applicant must submit the documents listed below before the application can be processed. If the requested document is not relevant to the project scope, please check the Not Applicable box and provide explanation.

- A. Plans drawn to scale showing the nature, location, dimensions, and elevation of the lot, existing or proposed structures, fill, storage of materials, flood proofing measures, and the relationship of the above to the location of the channel, floodway, and the regulatory flood-protection elevation.
- B. A typical valley cross-section showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development, and high-water information.
 - □ Not Applicable:
- C. Subdivision or other development plans (If the subdivision or other developments exceeds 50 lots or 5 acres, whichever is the lesser, the applicant <u>must</u> provide 100-year flood elevations if they are not otherwise available).

☑ Not Applicable:

D. Plans (surface view) showing elevations or contours of the ground; pertinent structure, fill, or storage elevations; size, location, and spatial arrangement of all proposed and existing structures on the site; location and elevations of streets, water supply, sanitary facilities; photographs showing existing land uses and vegetation upstream and downstream, soil types and other pertinent information.

□ Not Applicable:

E. A profile showing the slope of the bottom of the channel or flow line of the stream.

□ Not Applicable:

F. Elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures.

☑ Not Applicable:

G. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

Not Applicable:

- H. For proposed development within any flood hazard area (except for those areas designated as regulatory floodways), certification that a rise of no more than five hundredths of a foot (0.05') will occur on any adjacent property in the base flood elevation as a result of the proposed work. For proposed development within a designated regulatory floodway, certification of no increase in flood levels within the community during the occurrence of the base flood discharge as a result of the proposed work. All certifications shall be signed and sealed by a Registered Professional Engineer licensed to practice in the State of Oklahoma.
- I. A certified list of names and addresses of all record property owners within a three hundred fifty (350) foot radius of the exterior boundary of the subject property not to exceed 100 feet laterally from the Special Flood Hazard Area. The radius to be extended by increments of one hundred (100) linear feet until the list of property owners includes not less than fifteen (15) individual property owners of separate parcels or until a maximum radius of one thousand (1,000) feet has been reached.
- J. A copy of all other applicable local, state, and federal permits (i.e. U.S. Army Corps of Engineers 404 permit, etc).

After completing SECTION 2, APPLICANT should submit form to Permit Staff for review.

SECTION 3: FLOODPLAIN DETERMINATION (To be completed by Permit Staff.)

The proposed development is located on FIRM Panel No.: 0285 H, Dated: 9126 12008

The Proposed Development:

□ Is NOT located in a Special Flood Hazard Area (Notify the applicant that the application review is complete and NO FLOODPLAIN PERMIT IS REQUIRED).

☑ Is located in a Special Flood Hazard Area.

□ The proposed development is located in a floodway.

 \square 100-Year flood elevation at the site is $1157 - 115^{\text{cm}}$ Ft. NGVD (MSL) \square Unavailable

See Section 4 for additional instructions.

DATE: 5/15/2024 SIGNED.

SECTION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by Permit Staff.)

The applicant must also submit the documents checked below before the application can be processed.

- Flood proofing protection level (non-residential only) _____ Ft. NGVD (MSL). For flood proofed structures applicant must attach certification from registered engineer.
- Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood (Base Flood Elevation). A copy of all data and calculations supporting this finding must also be submitted.
- Certification from a registered engineer that the proposed activity in a regulatory flood plain will result in an increase of no more than 0.05 feet in the height of the 100-year flood (Base Flood Elevation). A copy of all data and calculations supporting this finding must also be submitted.
- All other applicable federal, state, and local permits have been obtained.

Other:

SECTION 5: PERMIT DETERMINATION (To be completed by Floodplain Chairman.)

The proposed activity: (A) \Box <u>Is</u>; (B) \Box <u>Is Not</u> in conformance with provisions of Norman's City Code Chapter 22, Section 429.1. The permit is issued subject to the conditions attached to and made part of this permit.

SIGNED: _____ DATE: _____

If **BOX** A is checked, the Floodplain committee chairman may issue a Floodplain Permit.

If **BOX B** is checked, the Floodplain committee chairman will provide a written summary of deficiencies. Applicant may revise and resubmit an application to the Floodplain committee or may request a hearing from the Board of Adjustment.

APPEALS: Appealed to Board of Adjustment: Hearing date:	□Yes □No	
Board of Adjustment Decision - Approved:	□Yes □ No	
Conditions:		

<u>SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Occupancy is issued.)</u>

1. FEMA Elevation Certificate

and/or

2. FEMA Floodproofing Certificate

NOTE: The completed certificate will be reviewed by staff for completeness and accuracy. If any deficiencies are found it will be returned to the applicant for revision. A Certificate of Occupancy for the structure will not be issued until an Elevation and /or Floodproofing Certificate has been accepted by the City.

National Flood Hazard Layer FIRMette



Legend





Basemap Imagery Source: USGS National Map 2023





Application for Floodplain Permit

Norman Nature Park





Submitted for Review on May 15, 2024







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I. Introduction

This project will provide a Nature Park in the heart of the City of Norman. The park features will include a play ground, walking trails, lookout station, and a raingarden. The park will allow the opportunity to provide compensatory storage for the stormwater to help with local flooding and its use of low impact development (LID) features such as pervious pavement at the proposed parking area provides a chance to improve the storwater quality for the overall watershed. The proposed rain garden and lookout station will be used for educational purposes to introduce the visitors to native vegetation and wetland functions.

The proposed park will be located on the northeast corner of the intersection of East Alameda Street and South Carter Avenue. It will have Alameda Church of Christ on the east and a commercial property on its north. The construction cost of the project is estimated at \$1,200,000. Tributary B of Bishop Creek is located within the limits of proposed park and the proposed improvement will impact that creek's floodplain area. The limits of regulatory floodplain as shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) is shown below. The proposed improvements will not adversely impact any of the neighboring properties. Included in this document are required documentation for a request for a Floodplain Permit for the project.



Limits of regulatory Floodplain as shown on FEMA FIRM Panel 40027C0285H

CITY OF NORMAN FLOODPLAIN PERMIT APPLICATION

FOR

NORMAN NATURE PARK PROJECT



City of Norman

Floodplain Permit No.

Floodplain Permit Application

Building Permit No.

Date _____

FLOODPLAIN PERMIT APPLICATION

(\$100.00 Application Fee Required)

SECTION 1: GENERAL PROVISIONS (APPLICANT to read and sign):

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- 2. The permit may be revoked if any false statements are made herein.
- 3. If revoked, all work must cease until permit is re-issued.
- 4. Development shall not be used or occupied until a Certificate of Occupancy is issued.
- 5. The permit will expire if no work is commenced within 2 years of issuance.
- 6. Applicant is hereby informed that other permits may be required to fulfill local, state and federal regulatory requirements and must be included with this floodplain permit application.
- 7. Applicant hereby gives consent to the City of Norman or his/her representative to access the property to make reasonable inspections required to verify compliance.
- 8. The following floodplain modifications require approval by the City Council:
 - (a) A modification of the floodplain that results in a change of ten percent (10%) or more in the width of the floodplain.
 - (b) The construction of a pond with a water surface area of 5 acres or more.
 - (c) Any modifications of the stream banks or flow line within the area that would be regulatory floodway whether or not that channel has a regulatory floodplain, unless the work is being done by the City of Norman staff as part of a routine maintenance activity.

9. All supporting documentation required by this application is required along with the permit fee by the submittal deadline. Late or incomplete applications will not be accepted.

10. I, THE APPLICANT, CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.

SECTION 2: PROPOSED DEVELOPMENT (To be completed by APPLICANT.)

APPLICANT: The City of Norman Parks & Recreation Department	ADDRESS: 225 N. Webster Avenue, Norman, OK 73069
TELEPHONE: 405-366-5472	_SIGNATURE:
BUILDER:	ADDRESS:
TELEPHONE:	SIGNATURE:
ENGINEER: LMRK Engineering	ADDRESS: 7212 NW 129th Street, Oklahoma City, OK 73142
TELEPHONE: <u>405-394-6649</u>	SIGNATURE: Rug Khikgan

PROJECT LOCATION

To avoid delay in processing the application, please provide enough information to easily identify the project location. Provide the street address, subdivision addition, lot number or legal description (attach) and, outside urban areas, the distance to the nearest intersecting road or well known landmark. A sketch attached to this application showing the project location would be helpful.

The proposed Nature Park area is located on the northeast corner of the intersection of E. Alameda Street and S. Carter Avenue.

Alameda Street and Carter Avenue will be the south and west boundaries of the park and Alameda Church of Christ will be the on the east side of the park.

The park will be approximately 2.5 acres in size and will have Bishop Creek running through its limits.

DESCRIPTION OF WORK (Check all applicable boxes): A. STRUCTURAL DEVELOPMENT

<u>ACTIVITY</u> <u>STRUCTURE TYPE</u>

□ New Structure	□ Residential (1-4 Family)
□ Addition	□ Residential (More than 4 Family)
□ Alteration	□ Non-Residential (Flood proofing? □ Yes)
□ Relocation	Combined Use (Residential & Commercial)
Demolition	□ Manufactured (Mobile) Home
□ Replacement	□ In Manufactured Home Park? □ Yes

ESTIMATED COST OF PROJECT <u>\$</u> 1200000 Work that involves substantial damage/substantial improvement requires detailed cost estimates and an appraisal of the structure that is being improved.

B. OTHER DEVELOPMENT ACTIVITIES:

- ☑ Fill □ Mining □ Drilling □ Grading
- Excavation (Beyond the minimum for Structural Development)
- □ Watercourse Alteration (Including Dredging and Channel Modifications)
- □ Drainage Improvements (Including Culvert Work) □ Road, Street or Bridge Construction
- □ Subdivision (New or Expansion) □ Individual Water or Sewer System

In addition to items A. and B. provide a complete and detailed description of proposed work (failure to provide this item will be cause for the application to be rejected by staff). Attach additional sheets if necessary.

The park will include a parking lot and recreation/education area that will mainly be out of the floodplain area. The proposed rain garden area and trail system will encroach into the floodplain area however none of the proposed features that will be constructed

within the floodplain area will be permanent features that would significantly impede the movement of flow in the floodplain. The fill needed for the construction of the proposed parking lot will encroach into the floodplain area however the lowering of the floodplain in the

educational area on the south side of the creek provides compensatory storage to remediate the imp

C. ATTACHMENTS WHICH ARE REQUIRED WITH EVERY APPLICATION:

The applicant must submit the documents listed below before the application can be processed. If the requested document is not relevant to the project scope, please check the Not Applicable box and provide explanation.

- A. Plans drawn to scale showing the nature, location, dimensions, and elevation of the lot, existing or proposed structures, fill, storage of materials, flood proofing measures, and the relationship of the above to the location of the channel, floodway, and the regulatory flood-protection elevation.
- B. A typical valley cross-section showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development, and high-water information.

□ Not Applicable:

C. Subdivision or other development plans (If the subdivision or other developments exceeds 50 lots or 5 acres, whichever is the lesser, the applicant <u>must</u> provide 100-year flood elevations if they are not otherwise available).

☑ Not Applicable:

D. Plans (surface view) showing elevations or contours of the ground; pertinent structure, fill, or storage elevations; size, location, and spatial arrangement of all proposed and existing structures on the site; location and elevations of streets, water supply, sanitary facilities; photographs showing existing land uses and vegetation upstream and downstream, soil types and other pertinent information.

□ Not Applicable:

E. A profile showing the slope of the bottom of the channel or flow line of the stream.

■ Not Applicable:

F. Elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures.

☑ Not Applicable:

G. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

☑ Not Applicable:

- H. For proposed development within any flood hazard area (except for those areas designated as regulatory floodways), certification that a rise of no more than five hundredths of a foot (0.05') will occur on any adjacent property in the base flood elevation as a result of the proposed work. For proposed development within a designated regulatory floodway, certification of no increase in flood levels within the community during the occurrence of the base flood discharge as a result of the proposed work. All certifications shall be signed and sealed by a Registered Professional Engineer licensed to practice in the State of Oklahoma.
- I. A certified list of names and addresses of all record property owners within a three hundred fifty (350) foot radius of the exterior boundary of the subject property not to exceed 100 feet laterally from the Special Flood Hazard Area. The radius to be extended by increments of one hundred (100) linear feet until the list of property owners includes not less than fifteen (15) individual property owners of separate parcels or until a maximum radius of one thousand (1,000) feet has been reached.
- J. A copy of all other applicable local, state, and federal permits (i.e. U.S. Army Corps of Engineers 404 permit, etc).

After completing SECTION 2, APPLICANT should submit form to Permit Staff for review.

SECTION 3: FLOODPLAIN DETERMINATION (To be completed by Permit Staff.)

The proposed development is located on FIRM Panel No.:_____, Dated: ______

The Proposed Development:

□ Is NOT located in a Special Flood Hazard Area (Notify the applicant that the application review is complete and NO FLOODPLAIN PERMIT IS REQUIRED).

□ Is located in a Special Flood Hazard Area.

□ The proposed development is located in a floodway.

□ 100-Year flood elevation at the site is_____ Ft. NGVD (MSL) □ Unavailable

See Section 4 for additional instructions.

SECTION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by Permit Staff.)

The applicant must also submit the documents checked below before the application can be processed.

- Flood proofing protection level (non-residential only) _____ Ft. NGVD (MSL). For flood proofed structures applicant must attach certification from registered engineer.
- Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood (Base Flood Elevation). A copy of all data and calculations supporting this finding must also be submitted.
- Certification from a registered engineer that the proposed activity in a regulatory flood plain will result in an increase of no more than 0.05 feet in the height of the 100-year flood (Base Flood Elevation). A copy of all data and calculations supporting this finding must also be submitted.
- All other applicable federal, state, and local permits have been obtained.

Other: _____

SECTION 5: PERMIT DETERMINATION (To be completed by Floodplain Chairman.)

The proposed activity: (A) \square Is; (B) \square Is Not in conformance with provisions of Norman's City Code Chapter 22, Section 429.1. The permit is issued subject to the conditions attached to and made part of this permit.

SIGNED: DATE:

If **BOX** A is checked, the Floodplain committee chairman may issue a Floodplain Permit.

If **BOX B** is checked, the Floodplain committee chairman will provide a written summary of deficiencies. Applicant may revise and resubmit an application to the Floodplain committee or may request a hearing from the Board of Adjustment.

APPEALS: Appealed to Board of Adjustment: \Box Yes \Box No Hearing date: Board of Adjustment Decision - Approved: 🗆 Yes 🗆 No

Conditions:

SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Occupancy is issued.)

- 1. FEMA Elevation Certificate and/or
- 2. FEMA Floodproofing Certificate

NOTE: The completed certificate will be reviewed by staff for completeness and accuracy. If any deficiencies are found it will be returned to the applicant for revision. A Certificate of Occupancy for the structure will not be issued until an Elevation and /or Floodproofing Certificate has been accepted by the City.

NO RISE CERTIFICATION LETTER



3/15/2024

Jason Murphy, CFM Stormwater Program Manager City of Norman Public Works Stormwater Division 225 N. Webster Norman, OK 73069

Subject: No rise certification for Norman Nature Park project

Dear Mr. Murphy,

LMRK has evaluated the proposed park development area located at the northwest corner of Alameda Street and Carter Avenue. The proposed park features impact Bishop Creek Tributary B however, the impacts on the floodplain of the creek is offset by providing compensatory storage for stormwater in the park.

This letter is to certify that the proposed park features are not predicted to increase the base flood elevation on any of the neighboring properties. This conclusion is based on hydraulic analysis of the existing and proposed conditions.

Sincerely,

Reza Khakpour, P.É., CFM, CPESC, DBIA



APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS

1 - United States Army Corps of Engineers letter



DEPARTMENT OF THE ARMY U.S. ARMY CORPS OF ENGINEERS, TULSA DISTRICT 2488 EAST 81ST STREET TULSA, OKLAHOMA 74137-4290

March 20, 2024

Regulatory Office

Mr. Reza Khakpour LMRK Engineering, LLC 7212 NW129th Street Oklahoma City, OK 73142

Dear Mr. Khakpour:

This is in reference to the Norman Nature Park Project, located in Section 29, Township 9 North, Range 2 West, in Cleveland County, Oklahoma. We have reviewed the submitted data relative to Section 404 of the Clean Water Act (CWA).

The provided information does not indicate that a placement of dredged or fill material will be required, permanently or temporarily, into any potential "waters of the United States," including potential jurisdictional wetlands. Therefore, your proposal is not subject to regulation pursuant to Section 404 of the CWA, and a Department of the Army (DA) permit will not be required. Should your method of construction necessitate such a discharge into an aquatic area or tributary stream, we suggest that you resubmit that portion of your project so that we may determine whether an individual DA permit will be required.

This "No Permit Required" determination does not address nor includes any consideration for geographic jurisdiction on aquatic resources and shall not be interpreted as such.

Although Section 404 of the CWA authorization is not required, this does not preclude the possibility that a real estate interest or other Federal, State, or local permits may be required.

If you desire to complete a "Customer Service Survey" on your experience with the Corps Regulatory Program, visit <u>https://regulatory.ops.usace.army.mil/customer-service-survey/</u> on the internet at your convenience and submit your comments.

This case has been assigned Identification No. SWT-2024-00087. Please refer to this number during any future correspondence. If you have any questions, please contact Mr. Rob Hoffmann at 918-669-7481.

Sincerely,

Rob Hoffmann

Andrew R. Commer Chief, Regulatory Office

CHANNEL PROFILE AND CHANNEL CROSS SECTION

- 1 Cross Section Location Map
- 2 Channel Cross Sections
- 3 Channel Profile










































PROPERTY OWNER LIST

List of property owners located within 350 foot radius of outer boundary of the project location provided by Cleveland County

23222 LAWRENCE, TREVOR LANE & CATHERINE M 38877 VALENTAS, CHRISTOPHER & KILEY-REV TRT 38906 CONCORD MISSIONARY BAPTIST CHURCH 157793 MORRISON, ROY & VEVA RANCH CORP L57794 RUVALCABA, ALEJANDRINA & JOSE M 138699 SULLIVAN, MICHAEL W & PAULA KIM 138700 SULLIVAN, MICHAEL W & PAULA KIM 24151 HUNTINGTON INVESTMENT CORP 132346 BIG BROTHERS ENTERPRISES, LLC 149497 HAWN BROS CONSTRUCTION LLC 115742 ALAMEDA CHURCH OF CHRIST 115423 CENTRAL CHURCH OF CHRIST 24167 SIEBER, AMANDA ELIZABETH 24165 KUEHNERT, CHRISTOPHER S 24164 HOMER, DON A SR & JANIE 38903 DAVENPORT, CARLA SUE 24152 SEASON'S CAPITAL, LLC 24150 SEASON'S CAPITAL, LLC 38907 MUSSER, MARCIA ANN 23039 WALLS, CAROL LYNN 24166 MILLER, CAROLYN S 38902 WAGGONER, FRANK 38904 DEHAVEN, JAMES K 132347 LITTLEJOHN, DANNY 23026 HYMER-HALL 4, LLC 24156 620 EAST LINN, LLC 23040 CITY OF NORMAN 23041 CITY OF NORMAN 38905 HAILEY, EDNA E 144545 MILLER, J C LLC L57795 BAKER, ANNE L Owner Account #

523 S CARTER AVE, Unit 529 **503 MORNINGSIDE DR** 602 MORNINGSIDE DR 606 MORNINGSIDE DR 600 S FINDLAY AVE **501 S CARTER AVE 503 S FINDLAY AVE 501 S FINDLAY AVE** 620 ALAMEDA ST 515 ALAMEDA ST 515 ALAMEDA ST 701 E APACHE ST 810 ALAMEDA ST **306 ALAMEDA ST** 630 E APACHE ST **308 ALAMEDA ST 804 ALAMEDA ST 801 ALAMEDA ST 501 ALAMEDA ST** 650 ALAMEDA ST 616 E APACHE ST 518 E APACHE ST 620 E LINN ST 621 E LINN ST 605 E LINN ST **503 E LINN ST** E APACHE ST L ASSESSOR E LINN ST Address

520 E APACHE ST

Market Value \$322,779 \$1,030,000 \$1,414,985 \$134,923 \$133,670 \$253,149 \$132,736 \$185,000 \$294,005 \$148,804 \$157,039 \$167,360 \$875,645 \$173,369 \$75,600 \$75,600 \$116,216 \$68,610 \$20,560 \$25,000 \$66,250 \$102,468 \$293,795 \$63,782 \$45,163 \$1,000 \$79,762 104,322 97,765 99,310

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HYMER-HALL 4, LLC 1217 Lindsey Plaza DR, 101 Norman OK 73071-1905

CITY OF NORMAN 201 W Gray ST, # C Norman OK 73069-7108

HUNTINGTON INVESTMENT CORP 3113 MILLBURY RD NORMAN OK 73071

HOMER, DON A SR & JANIE 12701 Old Macgregor LN Fort Worth TX 76244-4357

SIEBER, AMANDA ELIZABETH 603 E LINN ST NORMAN OK 73071

DAVENPORT, CARLA SUE 3604 CHANTHAM COURT NORMAN OK 73072

CONCORD MISSIONARY BAPTIST CHURCH 1500 Stubbeman AVE Norman OK 73069-8724

ALAMEDA CHURCH OF CHRIST 801 Alameda ST Norman OK 73071-5227

SULLIVAN, MICHAEL W & PAULA KIM 800 Belmar BLVD Norman OK 73071-8001

HAWN BROS CONSTRUCTION LLC 3700 Sooner DR Oklahoma City OK 73165-6305 WALLS, CAROL LYNN 529 S Carter AVE Norman OK 73071-5403

LAWRENCE, TREVOR LANE & CATHERINE M 2801 Summit Hill CT Norman OK 73071-4102

SEASON'S CAPITAL, LLC 17934 Anthem Ridge RD Owasso OK 74055-8268

KUEHNERT, CHRISTOPHER S 17150 183rd ST Lexington OK 73051-5403

VALENTAS, CHRISTOPHER & KILEY-REV TRT 603 MORNINGSIDE DR NORMAN OK 73071

DEHAVEN, JAMES K 125 Lakeside DR Norman OK 73026-0722

MUSSER, MARCIA ANN 606 MORNINGSIDE DR NORMAN OK 73071

BIG BROTHERS ENTERPRISES, LLC 3651 48TH AVE SE NOBLE OK 73068

SULLIVAN, MICHAEL W & PAULA KIM 800 Belmar BLVD Norman OK 73071-8001

MORRISON, ROY & VEVA RANCH CORP 11714 CR 1690 ROFF OK 74865 CITY OF NORMAN 201 W Gray ST Norman OK 73069-7108

SEASON'S CAPITAL, LLC 17934 Anthem Ridge RD Owasso OK 74055-8268

620 EAST LINN, LLC 501 E Main ST Norman OK 73071-5822

MILLER, CAROLYN S 605 E Linn ST Norman OK 73071-5409

WAGGONER, FRANK 810 Alameda ST Norman OK 73071-5228

HAILEY, EDNA E 804 Alameda ST Norman OK 73071-5228

CENTRAL CHURCH OF CHRIST 801 Alameda ST Norman OK 73071-5227

LITTLEJOHN, DANNY 601 S Findlay AVE Norman OK 73071-5425

MILLER, J C LLC PO Box 925 Norman OK 73070-0925

RUVALCABA, ALEJANDRINA & JOSE M 618 E Apache ST Norman OK 73071-5418



CONSTRUCTION PLANS





ADA NOTES

CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL SIDEWALKS AND ACCESS RAMPS COMPLY WITH THE CITY OF NORMAN ADA STANDARD REQUIREMENTS. CONTRACTOR SHALL NOTIFY THE ENGINEER OR ENGINEER'S DESIGNEE FOR ANY DISCREPANCIES BETWEEN DESIGN INFORMATION AND THE CITY OF NORMAN STANDARD REQUIREMENTS PRIOR TO CONSTRUCTION.

EROSION CONTROL NOTES A COPY OF THE EROSION CONTROL SITE PLAN MUST BE ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE INSPECTOR UPON REQUEST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION. INDICATE PROCEDURES FOR RE-VEGETATION OF DISTURBED AREAS FOR PERMANENT STABILIZATION.



NOTES

A STORM WATER DISCHARGE PERMIT IS REQUIRED BEFORE ANY LAND DISTURBING ACTIVITIES CAN BEGIN. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO OBTAIN STORMWATER QUALITY PERMIT, SWPPP, AND FILE N.O.I.

NOTES

CONSTRUCTION ACTIVITIES THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE(1) ACRE, OR LESS THAN ONE(1) ACRE IF THEY ARE PART OF A LARGER COMMON PLAN OF DEVELOPMENT OF SALE THAT TOTALS AT LEAST ONE(1) ACRE MUST OBTAIN A PERMIT FROM ODEQ (FORM 605-002A) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. THIS MEANS THAT LAND DISTURBING OF ONE ACRE OR MORE MUST PERMIT WITH ODEQ AND THE CITY OF NORMAN, STORM WATER QUALITY.



The City of NORMAN, OK

LARRY HEIKKILA COUNCIL MEMBERS AUSTIN BALL LAUREN SCHUELER BREE MONTOYA HELEN GRANT MICHAEL NASH ELIZABETH FOREMAN STEPHEN HOLMAN MATTHEW PEACOCK

DARREL PYLE

MAYOR

Ward 1 Ward 2 Ward 3 Ward 4 Ward 5 Ward 6 Ward 7 Ward 8

CITY MANAGER

DATE
DATE
DATE
DATE

Ш Z Ave 2th

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Б	C-1.1	EXISTING SITE PLAN		
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٦	C-2.1	DEMOLITION PLAN		
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PROJECT INFORMATION
PROJECT ADDRESS:

801 E Alameda St.
Norman, OK 73069PROJECT NO.DATE11-02-23DRAWN BYCHECKED BYABGE



ISSUE/ REVISIONS 05/13/24 65% Review Set

OWNER:

CITY OF NORMAN



EROSION CONTROL NOTES:

- 1. THE CONTRACTOR SHALL MAINTAIN AND REPAIR ANY DAMAGE TO STORM WATER POLLUTION CONTROL DEVICES AS SOON AS PRACTICAL AFTER THE DISCOVERY OF THE DAMAGE.
- 2. THE CONTRACTOR SHALL USE WHATEVER MEASURES NECESSARY TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES. THIS CAN BE ACCOMPLISHED BY TEMPORARY SEDIMENT PONDS, SILT FENCES, WIRE AND BURLAP FENCES, OR BARRIERS OF CEDAR TREES AND/OR BALES OF STRAW.
- 3. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL EROSION, CONSERVATION, AND SILTRATION **REQUIREMENTS**
- 4. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED. ADDITIONAL BMP'S SHALL BE IMPLEMENTED AS DICTATED BY FIELD CONDITIONS, AT NO ADDITIONAL COST TO OWNER, THROUGHOUT ALL PHASES OF CONSTRUCTION.
- 5. THE CONTRACTOR SHALL KEEP PAVEMENT AREAS FREE OF ANY MUD OR EXCAVATION WASTE FROM TRUCKS OR OTHER EQUIPMENT.
- 6. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL STRUCTURES UPON COMPLETION OF CONSTRUCTION AND THE ESTABLISHMENT OF SUFFICIENT PERMANENT STABILIZATION TO PREVENT EROSION.
- 7. THE CONTRACTOR SHALL INSTALL SOLID SLAB SOD, UNLESS OTHERWISE NOTED, TO OBTAIN STABILIZATION OF DISTURBED AREAS AS REQUIRED BY THE CONTRACT DOCUMENTS AND IN ACCORDANCE WITH THE CONSTRUCTION AND EROSION CONTROL SCHEDULES.
- 8. THE CONSTRUCTION AND PLACEMENT OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE TIMED IN CONJUNCTION WITH THE PROGRESS OF GENERAL CONSTRUCTION. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSPECTED AND MAINTAINED, AS PREVIOUSLY SET FORTH HEREIN, UNTIL ALL AREAS OF CONSTRUCTION HAVE BEEN STABILIZED.
- 9. THE CONTRACTOR SHALL BEGIN PERMANENT STABILIZATION OF COMPLETED AREAS OF CONSTRUCTION AS SOON AS IS PRACTICAL.
- 10. STABILIZED CONSTRUCTION ENTRANCES SHALL BE REQUIRED AT ALL POINTS WHERE CONSTRUCTION OR EMPLOYEE VEHICLES ENTER OR LEAVE THE CONSTRUCTION OR STAGING AREAS. THE STABILIZED CONSTRUCTION ENTRANCES ARE INTENDED TO PREVENT THE TRACKING OF MUD ONTO PUBLIC STREETS OUTSIDE THE CONTROLLED CONSTRUCTION AREAS.
- 11. THE STABILIZED CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED OF TWO INCH (2") STONE, OR RECLAIMED/RECYCLED CONCRETE OF SIMILAR SIZE, A MINIMUM OF SIX INCHES (6") THICK PLACED ON FILTER CLOTH.
- 12. THE STABILIZED CONSTRUCTION ENTRANCES SHALL BE A MINIMUM OF TWENTY FEET (20') IN WIDTH (BUT NOT LESS THAN FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR) AND AT LEAST FIFTY FEET (50') IN LENGTH.
- 13. ALL SURFACE WATER FLOWING OR DIVERTED TOWARD STABILIZED CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL THEN A MOUNTABLE BERM WITH FIVE TO ONE (5:1) SLOPES WILL BE PERMITTED.
- 14. THE WHEELS OF VEHICLES LEAVING THE CONSTRUCTION AREAS SHALL BE CLEANED OF MUD PRIOR TO LEAVING THE CONSTRUCTION OR STAGING AREAS. WHEN WHEEL WASHING IS REQUIRED IT SHALL BE PERFORMED IN AN AREA STABILIZED WITH STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 15. ANY MUD, SEDIMENT, EXCAVATION WASTE, ETC., DROPPED, WASHED, SPILLED, OR TRACKED FROM THE CONSTRUCTION OR STAGING AREAS ONTO STREETS OUTSIDE OF THE CONSTRUCTION AREAS SHALL BE REMOVED IMMEDIATELY.
- 16. PERIODIC INSPECTION AND INSPECTION AFTER SIGNIFICANT RAINFALL SHALL BE MADE OF THE CONSTRUCTION ENTRANCES AS PREVIOUSLY SET FORTH HEREIN.
- 17. SILT FENCE SHALL BE USED TO CONTROL SEDIMENTATION FROM SURFACE RUNOFF AROUND THE PERIMETER OF THE WORK AREA AS NECESSARY.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING THE SILT FENCE BARRIER AROUND THE LIMITS OF CONSTRUCTION AND AS SHOWN ON THE EROSION PLAN, DURING CONSTRUCTION, UNTIL ALL WORK IS COMPLETE AND VEGETATION IS REESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND SUBJECT TO FREQUENT INSPECTION OF ALL METHODS AND MATERIALS FOR EROSION PROTECTION, AND SHALL REPLACE ANY ITEM CONSIDERED DEFECTIVE BY THE ENGINEER IN A TIMELY MANNER.
- 19. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 14 DAYS SHALL BE TEMPORARILY SEEDED, SODDED, OR OTHERWISE STABILIZED UNTIL CONSTRUCTION RECOMMENCES.
- 20. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SODDED, UNLESS OTHERWISE NOTED. THESE AREAS SHALL BE SODDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING.
- 21. ONSITE AND OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BMP'S.
- 22. CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF TEMPORARY OR FINAL DRIVING SURFACES.

SITE DEMOLITION NOTES:

- SCOPE OF WORK SHALL INCLUDE REMOVAL OF ALL EXISTING OBJECTS REQUIRED FOR PROJECT CONSTRUCTION. REMOVED ITEMS THAT ARE NOT DENOTED FOR SALVAGE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF IN AN APPROVED MANNER. UNLESS OTHERWISE SPECIFIED, ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED.
- UNLESS NOTED FOR REMOVAL, EXISTING TREES SHALL NOT BE DISTURBED. ALL TREE REMOVALS SHALL BE APPROVED BY THE OWNER PRIOR TO DEMOLITION.
- 3. EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATED BASED ON RECORD DRAWINGS OR HORIZONTAL LOCATIONS FLAGGED IN THE FIELD. ALL VERTICAL LOCATIONS ARE APPROXIMATE DEPTH ONLY. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF UTILITIES INFORMATION. FIELD VERIFY THE PRESENCE, TYPE, SIZE, LOCATION AND DEPTH OF ALL EXISTING UTILITIES IN THE PROJECT AREA PRIOR TO CONSTRUCTION. NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING THE SITE. UNSUITABLE EXCAVATED MATERIALS AND ALL WASTE RESULTING FROM CLEARING AND GRUBBING SHALL BE DISPOSED OFF-SITE.
- 5. THE REMOVAL OF ANY UTILITY LINE, SERVICE, APPURTENANCE, AND STRUCTURE SHALL BE COORDINATED WITH THE OWNER OF THE RESPECTIVE UTILITY.
- ALL PAVEMENT REMOVAL SHALL BE FULL DEPTH. PAVEMENT REMOVAL ADJACENT TO EXISTING PAVEMENT, TO REMAIN, SHALL BE SAW-CUT IN STRAIGHT LINES, FULL DEPTH.
- 7. SIDEWALK REMOVALS SHOULD OCCUR TOWARDS THE END OF DEMOLITION. NEW SIDEWALK SHALL BE INSTALLED AS SOON AS POSSIBLE AFTER THE REMOVAL OF OLD SIDEWALK IN ORDER TO MAINTAIN OPERATIONS WITH MINIMAL INTERRUPTION IN SERVICE.
- 8. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS SHALL NOT BE PERMITTED.
- 9. CONTRACTOR SHALL BACKFILL ANY VOIDS RESULTING FROM STRUCTURES, VEGETATION, AND OBJECTS REMOVED. FILL SHALL BE PLACED IN ACCORDANCE WITH GEOTECHNICAL REPORT RECOMMENDATIONS FOR THIS SITE (SEE SITE GRADING NOTES).
- 10. ALL EXISTING STRUCTURES, PAVEMENTS AND UTILITIES DESIGNATED TO REMAIN SHALL BE ADEQUATELY PROTECTED FROM DAMAGE THAT MIGHT OTHERWISE OCCUR DUE TO CONSTRUCTION OPERATIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY STRUCTURES, UTILITIES OR PAVEMENTS RESULTING FROM THE CONTRACTOR'S OPERATIONS. CONTRACTOR SHALL TAKE PHOTOS OF EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
- 11. DURING CONSTRUCTION, ALL FIRE HYDRANTS, VALVE BOXES, FIRE OR POLICE CALL BOXES AND OTHER EXISTING UTILITY CONTROLS SHALL BE LEFT INTACT, UNOBSTRUCTED AND ACCESSIBLE UNLESS NOTED ON THE PLAN.
- 12. THE CONTRACTOR MUST FILE A "NOTICE OF INTENT" WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY AND THE AUTHORITY HAVING JURISDICTION, PRIOR TO COMMENCING EARTHWORK, CLEARING OR DEMOLITION OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR PREPARATION OF STORMWATER POLLUTION PREVENTION PLAN, IF REQUIRED.
- 13. EXISTING DRAINAGE STRUCTURES & PIPES, TO REMAIN, SHALL BE CLEANED OF SILT & DEBRIS AND INSPECTED FOR ANY STRUCTURAL DEFICIENCIES.
- 14. ABIDE BY ALL FEDERAL, STATE AND LOCAL CODES FOR THE DEMOLITION AND DISPOSAL OF ALL MATERIALS. CEC SHALL NOT BE LIABLE FOR ANY DEMOLITION PROCEDURES, SCHEDULING, OR DISPOSAL OF ANY MATERIALS.
- 15. THE SAFETY OF THE PROJECT SITE IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL CONSTRUCTION SIGNING, SAFETY FENCE, OR OTHER ITEMS NEEDED FOR PROTECTION OF THE GENERAL PUBLIC SHALL BE PROVIDED AT THE CONTRACTOR'S EXPENSE.

	EXISTING
PROPERTY LINE	
EASEMENT	
RIGHT-OF-WAY	
ROADWAY CENTERLINE	· · ·
ROADWAY C&G	= $=$ $=$ $=$ $=$ $=$
WATERLINE	<i>W</i>
WATERLINE FIRE	
WATERLINE SERVICE	
SAN. SWR. LINE	SS
SAN. SWR. FORCE MAIN	——— FM —— ——
STORM SEWER LINE	ST
TELE. UNDERGROUND	——————————————————————————————————————
FIBER OPTIC CABLE	——————————————————————————————————————
POWER UNDERGROUND	——————————————————————————————————————
POWER OVERHEAD	OHE
GAS LINE	G
UTILITY LINE (BY ATLAS)	——————————————————————————————————————
FENCE LINE	X
5' CONTOURS	— — — XXXX — — –
1' CONTOURS	XXXX
TOP OF BANK	
TOE OF SLOPE	<u> </u>
FLOWLINE	· · · · · · · · · · · · · · · · · · ·
HP BREAK LINE	

SITE CONSTRUCTION NOTES:

- ALL WORK PERFORMED AND MATERIALS SUPPLIED SHALL CONFORM TO THE AUTHORITY HAVING JURISDICTION'S STANDARD AND SPECIFICATIONS. IF AHJ STANDARDS AND SPECIFICATIONS DO NOT APPLY, ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE OKLAHOMA DEPARTMENT OF TRANSPORTATION 2019 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND SPECIAL PROVISIONS. PROJECT SPECIFICATIONS GOVERN OVER STANDARD SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES AND GOVERNMENTAL AGENCIES WHO MIGHT HAVE UTILITY LINES ON OR ABOUT THE PREMISES, OR WHO MIGHT BE AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL ALSO COORDINATE HIS ACTIVITIES WITH THE UTILITY COMPANIES TO ENSURE COMPLIANCE WITH THE PROJECT SCHEDULE. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO LOCATE AND PROTECT EXISTING UTILITY LINES, AND SHALL REPAIR ANY DAMAGES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN CONSTRUCTION STAKING. CONTRACTOR TO OBTAIN CAD DRAWING FILE FROM ENGINEER FOR SITE CONSTRUCTION STAKING.
- ALL CURB DIMENSIONS, RADIUS CALLOUTS AND ELEVATIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- 5. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- 6. ALL PAVEMENT STRIPING SHALL BE APPLIED IN TWO COATS, FOUR (4) INCHES WIDE, WHITE, AND ARE DIMENSIONED AS CENTER-TO-CENTER OF EACH STRIPE UNLESS SHOWN OTHERWISE ON PLANS.
- 7. ASSURE A SMOOTH FIT AND CONTINUOUS GRADE WITH EXISTING PAVEMENT. WHERE NEW CONCRETE PAVING IS TO ABUT EXISTING PAVEMENT, THE CONTRACTOR SHALL CONSTRUCT A THICKENED EDGE.
- 8. UNLESS OTHERWISE STATED IN THE GENERAL CONDITIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FAILED TESTS. THE RESULTS OF THE TESTS SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR HIS REVIEW AND APPROVAL
- 9. UNLESS OTHERWISE DIRECTED THE CONTRACTOR SHALL PROVIDE A MEDIUM TO FINE BROOM FINISH ON ALL CONCRETE WALKS, RAMPS, STAIRS AND PAVED SURFACES (REFER TO ARCHITECTURAL PLANS & SPECS. FOR SIDEWALK FINISH AROUND BUILDING).
- 10. REFER TO ARCHITECTURAL PLANS AND SPECS. FOR CONSTRUCTION INFORMATION AND DETAILS FOR BUILDING ERECTION.
- 11. CONTRACTOR TO NOTIFY DESIGN ENGINEER IF ANY PLAN DISCREPANCIES ARISE IN THE FIELD DURING CONSTRUCTION.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY WORK ORDERS AND PERMITS FROM THE LOCAL AHJ AND/OR THE STATE OF OKLAHOMA, INCLUDING PROVISIONS OF BONDS AND INSURANCE AS REQUIRED.
- 13. THE PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING PUBLIC OR PRIVATE ROADWAYS, DRIVEWAYS, OR SIDEWALKS TO LOCAL OR THROUGH TRAFFIC. IF ROAD CLOSURE IS REQUIRED IT SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION AND THE OWNER.
- 14. PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED PAVED SURFACES (INCLUDING CURBS) SHALL BE CLEANED OF ALL DISCOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, AND OTHER DISFIGUREMENT.
- 15. CONTRACTOR IS RESPONSIBLE FOR ALL FIRE LANE STRIPING & 12. ENSURE POSITIVE DRAINAGE AWAY FROM ALL SIDES OF ALL SIGNAGE, AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
- 16. SIDEWALK RAMPS AND ACCESSIBLE PARKING AREAS SHALL BE CONSTRUCTED TO MEET THE ADA ACCESSIBILITY GUIDELINES. GRADES IN ACCESSIBLE PARKING AREAS SHALL NOT EXCEED 2% IN ANY DIRECTION. CROSS SLOPE ON SIDEWALK SHALL NOT EXCEED 2%. LONGITUDINAL SLOPE ON SIDEWALK SHALL NOT EXCEED 5% EXCEPT AS SPECIFICALLY SHOWN IN PLANS.
- 17. CONDUCT AS-BUILT MEASUREMENTS AND SUBMIT DOCUMENTATION TO THE OWNER PRIOR TO FINAL ACCEPTANCE.

SITE GRADING NOTES:

- 1. PROPOSED CONTOURS DEPICT FINAL PAVING ELEVATION ADJUST SUBGRADE AS NECESSARY FOR PAVEMENT THICKNESS.
- 2. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL ENGINEERING REPORT PROVIDED BY HINDERLITER GEOTECHNICAL ENGINEERING, INC DATED JULY 13, 2023 FOR SITE AND SUBSURFACE CONDITIONS, SITE AND BUILDING PAD PREPARATION, AND PAVEMENT RECOMMENDATIONS AND CONSTRUCTION SPECIFICATIONS. ANY INCONSISTENCIES BETWEEN THE GEOTECHNICAL ENGINEERING REPORT AND THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF ENGINEER FOR RESOLUTION.
- AFTER PERFORMING ANY REQUIRED CUTS AND PRIOR TO PLACEMENT OF FILL, THE SITE SHALL BE PROOFROLLED WITH A 20 TO 25 TON PNEUMATIC-TIRED VEHICLE TO LOCATE ANY ZONES THAT ARE SOFT OR UNSTABLE. WHERE RUTTING OR PUMPING IS OBSERVED DURING PROOFROLLING, THE UNSTABLE SOILS SHALL BE OVER-EXCAVATED AND REPLACED WITH FILL IF THE SOILS CAN NOT BE MOISTURE CONDITIONED AND EFFECTIVELY COMPACTED IN PLACE.
- 4. THE BUILDING AREA SUBGRADE SOILS AND ANY AREA THAT WILL RECEIVE FILL SHALL BE SCARIFIED AND COMPACTED TO A DEPTH OF 8 INCHES. THE MOISTURE CONTENT OF THE SCARIFIED SOIL SHALL BE ADJUSTED TO WITHIN 2% OF ITS OPTIMUM VALUE, AS DETERMINED BY THE STANDARD PROCTOR TEST METHOD (ASTM D-698), PRIOR TO BEING COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY.
- 5. STRUCTURAL FILL SHALL BE FREE OF ORGANIC MATTER AND DEBRIS, AND BE LOW VOLUME CHANGE SOIL CONSISTING OF COHESIVE MATERIALS HAVING A LIQUID LIMIT LESS THAN 40 AND A PLASTICITY INDEX BETWEEN 5 AND 18. FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 6 INCHES IN LOOSE THICKNESS, AND COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY AND AT OR ABOVE THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD PROCTOR TEST METHOD (ASTM D-698).
- 6. UNLESS OTHERWISE STATED, THE CONTRACTOR SHALL COORDINATE AND ORDER ALL TESTING IN CONJUNCTION WITH EARTHWORK OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FAILED TESTS. THE RESULTS OF THE TESTS SHALL BE FORWARDED TO ENGINEER FOR REVIEW AND APPROVAL. THE SOILS LABORATORY SHALL DETERMINE THE SUITABILITY OF EXISTING SITE MATERIAL PRIOR TO **BEGINNING FILL OPERATIONS.**
- 7. CONTRACTOR SHALL TAKE ALL PREVENTIVE MEASURES NECESSARY TO ELIMINATE, REDUCE, OR ALLEVIATE ANY DUST NUISANCE IN THE WORK AREA.
- 8. EXISTING CONTOURS AND SPOT ELEVATIONS ARE CORRECT PER SURVEY DATED AUGUST 25, 2023. CONTRACTOR SHALL VERIFY ELEVATIONS PRIOR TO COMMENCING CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- CONTRACTOR SHALL ADJUST THE GRADES OF ALL EXISTING VALVE BOXES AND COVERS, FIRE HYDRANTS, MANHOLES, METER BOXES, TRAFFIC BOXES, AND OTHER UTILITIES TO MEET THE SPECIFICATIONS OF EACH UTILITY COMPANY.
- 10. ALL TOPSOIL SHALL BE REMOVED AND STOCKPILED IN AN AREA DESIGNATED BY OWNER. UPON COMPLETION OF CONSTRUCTION, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE SPREAD OVER AREAS DISTURBED DURING CONSTRUCTION. CONTRACTOR SHALL SOD THESE AREAS, UNLESS OTHERWISE NOTED. SODDED AREAS SHALL BE MAINTAINED BY PROVIDING THE NECESSARY FERTILIZER AND WATER UNTIL THE VEGETATION AND ROOT GROWTH IS SUBSTANTIALLY ESTABLISHED.
- 11. CUT OR FILL SLOPES SHALL BE 4:1 MAX UNLESS NOTED OTHERWISE.
- BUILDINGS (EXISTING & PROPOSED) THROUGHOUT ALL PHASES OF CONSTRUCTION

SITE UTILITY NOTES:

- THOSE UTILITIES WHICH ARE PUBLIC SHALL BE INSTALLED BY ORDERS, AND PERMITS REQUIRED.
- EXCAVATION . CONTRACTOR SHALL NOTIFY ALL UTILITY AFFECTED BY THE CONSTRUCTION.
- THE UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR BACKFILLING AND COMPACTING ALL TRENCHES AND EXCAVATION AREAS ASSOCIATED WITH UTILITY SITE (SEE SITE GRADING NOTES).
- MARKED UNTIL SUCH TIME AS CONNECTIONS ARE MADE UP TO A MINIMUM OF 1' ABOVE FINISHED GRADE. BUILDING(S) WITH THE M.E.P. PLANS.
- ALL VALVES, MANHOLE LIDS, AND SEWER CLEAN-OUTS LOCATED IN PAVED AREAS, SHALL BE RATED FOR H-20 TRAFFIC LOADING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING APPROVAL.
- 7. CONTRACTOR SHALL RAISE OR LOWER ALL EXISTING VALVE
- 1% SLOPE W/ CLEANOUTS SET AT 100' O.C. AND BE PLUMBING CODES.
- 9. CONTRACTOR SHALL PROVIDE ELECTRICAL CONDUIT AS NEEDED. REFER TO ARCHITECTURAL PLANS.
- DEVICES AS NECESSARY AROUND THE PERIMETER OF
- DURING THE PERFORMANCE UNDER THIS CONTRACT. CONTRACTOR IS ADVISED THAT FEDERAL REGULATIONS 29 CONTRACTOR SHALL FULLY COMPLY WITH THE U.S. EXCAVATIONS, TRENCHING, AND SHORING AND SHALL PROVIDE AND FAMILIARIZE ITS EMPLOYEES INVOLVED IN OPERATIONS.
- 13. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TEMPORARY UTILITIES REQUIRED FOR CONSTRUCTION.
- 14. CONTRACTOR SHALL KEEP OPEN TRENCH DRAINED AT ALL TIMES
- ALL EXISTING AND PROPOSED UTILITIES ON SITE, PRIOR TO FINAL ACCEPTANCE.

PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED	
	WATER SPIGOT	\otimes	\otimes	POWER POLE	Ø	ø	BOTTOM OF DIK
	WATER METER	٢	٢	GUY WIRE -)	>	BOTTOM OF WA EXISTING FLOW
	WATER VALVE	Q	Ō	ELECTRIC SERVICE CONNECTION	SVC		EXISTING GROU FINISH GROUND
W FIR	SPRINKLER CONTROL VALVE	\otimes	8	ELECTRIC PEDESTAL	E		FLOWLINE GUTTER LINE
SVC SS	SPRINKLER HEAD	Æ	¢÷	LIGHT POLE	Å.	Å	HIGH POINT
FM	FIRE HYDRANT			PULL BOX	PB	PB	TOP OF CURB
TUG	FIRE DEPARTMENT CONNECTION	•	\mathbf{t}	TELEPHONE PEDESTAL	Т		TOP OF GRATE TOP OF PAVING
PUG	GAS METER		٢	FIBER OPTIC PEDESTAL	FO		TOP OF SIDEWA
OHE G	GAS VALVE	Ð	Ō	BENCHMARK			
o	UTILITY CLEANOUT	\otimes	\otimes	CONTROL POINT	(CP)		
	UTILITY MANHOLE	\bigcirc	\bigcirc	WHEELSTOP			
	UTILITY MARKER	_ _	Ŭ		 王		
	DOWNSPOUT/ROOF DRAIN	\bigotimes	8	BOLLARD	ŝ		
							<u> </u>

I EGEND

A PROPERLY LICENSED CONTRACTOR APPROVED BY THE AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING APPROVED PLANS, WORK

CONTRACTOR SHALL CONTACT OKIE (1-800-522-6543) FOR LOCATING EXISTING UTILITIES PRIOR TO ANY REMOVALS OR COMPANIES AND GOVERNMENTAL AGENCIES WHO MAY HAVE UTILITY LINES ON OR ABOUT THE PREMISES OR WHO MAY BE

CONSTRUCTION. FILL SHALL BE PLACED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT COMPLETED FOR THIS

ALL UTILITIES SHALL TERMINATE FIVE (5) FEET OUTSIDE THE BUILDING UNLESS OTHERWISE NOTED. THE END OF ALL SERVICE LINES SHALL BE TIGHTLY CAPPED OR PLUGGED AND INSIDE THE BUILDING. ALL SERVICE LINES SHALL BE STUBBED CONTRACTOR SHALL VERIFY ALL UTILITY STUBS TO THE

ELEVATIONS AND ADJUSTING ALL COVERS AND LIDS IN PAVED AREAS TO FINISHED GRADE. ALL FIELD ADJUSTMENTS SHALL BE NOTED AND BROUGHT TO ENGINEER'S ATTENTION FOR

BOXES AND COVERS, FIRE HYDRANTS, MANHOLES, METER BOXES, TRAFFIC BOXES, AND OTHER UTILITIES TO MEET THE SPECIFICATIONS OF EACH UTILITY COMPANY RESPECTIVELY.

ALL SANITARY SEWER SERVICE LINES SHALL HAVE A MINIMUM CONSTRUCTED TO THE AUTHORITY HAVING JURISDICTION'S

10. UNLESS OTHERWISE STATED IN THE GENERAL CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FAILED TESTS. THE RESULTS OF THE TESTS SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND ACCEPTANCE.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING AND MAINTAINING BARRICADES AND OTHER TRAFFIC WARNING CONSTRUCTION AND ADJACENT TO ANY OPEN TRENCHES.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH STATE LAWS AND FEDERAL REGULATIONS RELATING TO TRENCH SAFETY, INCLUDING THOSE WHICH MAY BE ENACTED

C.F.R. 1926.650-1926.652 HAVE BEEN, IN THEIR MOST RECENT VERSION AS AMENDED, IN EFFECT SINCE JANUARY 2, 1990.

DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS PERTAINING TO

EXCAVATION AND TRENCHING WITH THE PROVISIONS IN OSHA PAMPHLET NUMBER 2226, EXCAVATING AND TRENCHING

15. CONTRACTOR TO PROVIDE AS-BUILT FIELD DRAWINGS FOR

Έ	BD	
LL	BW	
'LINE	EXIST. FL	
IND	EG	
)	FG	
	FL	
	GUT	
	HP	
	тс	
	TD	
	TG	
i	TP	
LK	TS	
	TW	

SITE DETAIL NOTES:

DETAILS SHOWN ARE DESIGNED BASED ON INFORMATION FROM THE GEOTECHNICAL REPORT COMPLETED FOR THIS SITE (SEE SITE GRADING NOTES).

2. DETAILS SHOWN SHALL SUPERCEDE SPECIFICATIONS UNLESS OTHERWISE NOTED BY ENGINEER.

NO REVISIONS SHALL BE MADE TO DETAILS UNLESS 3 AUTHORIZED BY ENGINEER. CONTRACTOR SHALL SUBMIT ANY CHANGES TO PROJECT ENGINEER FOR APPROVAL.





PLANNING DESIGN GROUP LANDSCAPE ARCHITECTURE • RECREATIONAL DESIGN • LAND PLANNIN 5314 S. YALE AVE., SUITE 710, TULSA, OK 74135 918.628.1255 918.628.1256 FAX WWW.PLANNINGDESIGNGROUP.COM

PROJECT INFORMATION PROJECT ADDRESS:

801 E Alameda St. Norman, OK 73069 PROJECT NO. DATE 05-10-24 DRAWN BY CHECKED BY ACB



ISSUE/ REVISIONS				
05/13/24	65% Review Set			

OWNER:

CITY OF NORMAN



























OK CA#: 32 EXP.: 2024-06-30 CEC PROJECT #230413

		ELECT	RICAL SYMBOLS AND ABBREVIATIONS		
MARK	DESCRIPTION	MARK	DESCRIPTION	MARK	DESCRIPTION
А	ABOVE COUNTER, REFER DETAIL 9/E-501	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	OCP	OVERCURRENT PROTECTION
AFF/AFG	ABOVE FINISHED FLOOR/GRADE	GND	GROUND	RCPT	RECEPTACLE
ALT	ALTERNATE	HOA	HAND OFF AUTOMATIC	SM	SURFACE MOUNTED
AMP	AMPERE	IN	INCHES	SPD	SURGE PROTECTION DEVICE
APPROX	APPROXIMATE	KW	KILOWATTS	SPEC	SPECIFICATION(S)
ARCH	ARCHITECT/ARCHITECTURAL	мсс	MOTOR CONTROL CENTER	TV	TELEVISION
ATS	AUTOMATIC TRANSFER SWITCH	MDP	MAIN DISTRIBUTION PANEL	TYP	TYPICAL
С	CONDUIT	MECH	MECHANICAL	UG	UNDERGROUND
CLG	CEILING	MTS	MANUAL TRANSFER SWITCH	UNO	UNLESS NOTED OTHERWISE
DISC	DISCONNECT SWITCH	NC	NORMALLY CLOSED	V	VOLTS
EC	ELECTRICAL CONTRACTOR	NEC	NATIONAL ELECTRIC CODE, NFPA 70	W/	WITH
EXIST	EXISTING	NIC	NOT IN CONTRACT	W/O	WITHOUT
EP	EXPLOSION PROOF	NL	NIGHT LIGHT	WP	WEATHERPROOF (DEVICE AND WHILE-IN-USE ENCLOSURE)
FT	FEET	NO	NORMALLY OPEN	WR	WEATHER RESISTANT (DEVICE AND FLIP ENCLOSURE)
GC	GENERAL CONTRACTOR	NTS	NOT TO SCALE	XFMR	TRANSFORMER
				1/E2	DETAIL 1 ON SHEET E2
\ominus	HALFTONE SYMBOL INDICATES EXISTING	÷	NEMA 5-20R DUPLEX RECEPTACLE		SURFACE MOUNTED RACEWAY WITH POWER/ DATA ASSEMBLIES
Ę_;;=	DASHED SYMBOL INDICATES DEMOLITION	+	NEMA 5-20R QUADPLEX RECEPTACLE, (2 DUPLEX RECEPTS IN A 2-GANG BOX)	▼	TELEPHONE OUTLET
	ELECTRICAL 480V PANELBOARD	⊖A	NEMA 5-20R DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER	w 🗸	WALL TELEPHONE OUTLET
	ELECTRICAL 208V PANELBOARD	⊜	NEMA 5-20R DUPLEX RECEPTACLE MOUNTED IN CEILING	\bigtriangledown	DATA OUTLET
#/#/#	DISCONNECT SWITCH FUSIBLE UNLESS OTHERWISE NOTED, NUMBERS INDICATE FRAME/FUSE//POLE	•	TAMPER RESISTANT NEMA 5-20R DUPLEX RECEPTACLE, GROUND FAULT CIRCUIT INTERRUPTER TYPE	V	TELEDATA COMBINATION OUTLET
#/#/#	DISCONNECT SWITCH NON FUSIBLE UNLESS OTHERWISE NOTED, NUMBERS INDICATE FRAME, FUSE, POLE	œw	WEATHER AND TAMPER RESISTANT NEMA 5-20R DUPLEX RECEPTACLE OR SAME IN WEATHERPROOF ENCLOSURE	\leftthreetimes	WIRELESS ACCESS POINT
	CONTACTOR/MAGNETIC MOTOR STARTER OR COMBINATION	⊖∎IG	NEMA 5-20R DUPLEX RECEPTACLE, ISOLATED GROUND TYPE	CR	CARD READER
	VFD W/ DISCONNECTING MEANS	G	NEMA 5-20R ISOLATED GROUND QUADPLEX, RECEPTACLE, ORANGE COLOR	K	KEYPAD
FACP	FIRE ALARM CONTROL PANEL	e	TAMPER RESISTANT SPLIT DUPLEX, NEMA 5-20R DUPLEX RECEPTACLE MOUNTED AT 18" WITH TWO CIRCUITS.	-0	CCTV CAMERA
FAAP	FIRE ALARM ANNUCIATOR PANEL	<u> </u>	20A TAMPER RESISTANT DUPLEX RECEPTACLE		LIGHT FIXTURE ON (EM) LIFE SAFETY BRANCH, INVERTER, OR INTEGRAL 90 MINUTE BATTERY
NAC	SIGNAL POWER EXTENDER	6-	TAMPER RESISTANT USB A/C TYPE RECEPTACLE	\$3	LIGHT SWITCH, SPST, 20A. NUMBER INDICATES DPST, 3-WAY, 4- WAY
GAP	GENERATOR ANNUCIATOR PANELBOARD	⊖ _{Ewc}	ELECTRIC WATER COOLER, NEMA 5-20R DUPLEX RECEPT. MOUNT PER MANUFACTURER'S REQUIREMENTS, PROVIDE GECI BREAKER.	\$ ^b	LIGHT SWITCH, SPST, 20A. LETTER INDICATES CONTROL ZONE
\bigcirc	MOTOR OUTLET/CONNECTION - SEE SCHEDULE	\bigcirc	SPECIAL OUTLET - SEE DEVICE SCHEDULE	\$ _P	LIGHT SWITCH, PILOT LIGHT "ON", 20A
\sim	EQUIPMENT CONNECTION - SEE SCHEDULE		SPECIAL OUTLET - POKE THRU - SEE SCHEDULE	\$ _K	LIGHT SWITCH, KEY-OPERATED, 20A
(XXXX)	MECHANICAL EQUIPMENT TAG	Ē	FURNITURE FEED - FLOOR BOX - TRIM COLOR TBD	\$ _M	MANUAL MOTOR STARTER SWITCH W/ OVERLOAD
XXXX	OWNER EQUIPMENT TAG	(FF)	FURNITURE FEED - POKE THRU - TRIM COLOR TBD	\$ _V	VOLUME CONTROL
)	RISER OR CONDUIT TURNED DOWN		FLOOR BOX - DUPLEX WITH METALLIC FLIP COVER	\$ _{WP}	WEATHER PROOF SWITCH
0	RISER OR CONDUIT TURNED UP		FLOOR BOX - QUAD WITH METALLIC FLIP COVER	LV	LOW VOLTAGE OVERRIDE SWITCH
]	CAP ON PIPE		JUNCTION BOX (J-BOX OR JB)	M	OCCUPANCY SENSOR SWITCH- WALL MOUNTED
	OPEN CONDUIT END		INFRARED PLUMBING MOTION SENSOR		WALLBOX DIMMER SWITCH
	TEST PORT	(P)	POWER POLE	 	FAN SWITCH/CONTROLLER
A 1 2 5		PB	PULL BOX	(0\$)	OCCUPANCY SENSOR - CEILING MOUNTED - SEE LIGHTING
A-1,3,0			SPEAKER (WALL OR CEILING MOUNTED)		OCCUPANCY SENSOR - WALL MOUNTED - SEE LIGHTING
A-1,3,5			PUSH BUTTON		OUNTROL SCHEDULE
			START STOP		INDOOR DAYLIGHT SENSOR - SEE SENSOR SCHEDULE

GENERAL ELECTRICAL REQUIREMENTS:

- ELECTRICAL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE ADOPTED EDITIONS OF THE INTERNATIONAL BUILDING (IBC), ELECTRICAL (NEC), AND FIRE (IFC)CODES, NFPA 13, 70, 72, 90A, 101 AND ALL LOCAL AMENDMENTS AND REGULATIONS. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE DRAWINGS AND SHALL BE PERFORMED WITH THE LATEST INDUSTRY ACCEPTED STANDARDS. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND APPLICABLE CODES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE MORE STRINGENT OF THE TWO SHALL BE FOLLOWED, ALL WORK SHALL BE CONDUCTED IN A SAFE MANNER WITH ADEQUATE PROTECTION FOR THE NEW WORK, EXISTING PROPERTY, AND THE GENERAL PUBLIC.
- CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF EXISTING CONDITIONS, NEW WORK, PATCHING, ETC., REQUIRED BY THE PROJECT, AND TO BECOME FAMILIAR WITH THE WORK CONDITIONS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR WORK INDICATED OR REQUIRED; FOR WORK PROVIDED DURING NON-STANDARD HOURS; FOR WORK REQUIRED TO MAINTAIN BUILDING SAFETY AND FUNCTION; FOR WORK TO PATCH/REPAIR BUILDING SYSTEMS AND FINISHES; OR ANY OTHER WORK RESULTING FROM REQUIRED NEW WORK, RECONNECTION, AND/OR DEMOLITION OPERATIONS.
- 3. ELECTRICAL SYSTEM PENETRATIONS THROUGH NEW & EXISTING WALLS, FLOOR/CEILING, OR ROOF CONSTRUCTION SHALL BE THOROUGHLY FILLED WITH FIRE RESISTANT MATERIAL (STUFFING FIBRE-FLAX DURA BLANKET IN CAVITIES) AND SEALED WITH 3M BRAND FIRE BARRIER CAULK, CP25. ALL FIRE STOPPING SHALL BE EQUAL TO OR BETTER THAN ASSEMBLY PENETRATED. PENETRATION OF ALL FIRE BARRIERS SHALL NOT IMPAIR THE INTEGRITY OF THE BARRIER. ALL SLEEVED OPENINGS SHALL BE FINISHED IN SUCH A MANNER THAT MAINTAINS THE FIRE RESISTANCE.
- 4. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL WIRING AND CONDUIT, AND OTHER SYSTEMS SPECIFIED AND REQUIRED IN THE PROJECT. CONTRACTOR SHALL MAINTAIN PROPER CLEARANCES BETWEEN MECHANICAL AND ELECTRICAL EQUIPMENT. DUCTS, PIPES, OR EQUIPMENT SHALL NOT INTRUDE ON ELECTRICAL CLEARANCE SPACE AS DEFINED IN THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE.
- 5. ALL NECESSARY PERMITS, LICENSES, CERTIFICATES, TESTS, ETC., SHALL BE OBTAINED BY THE CONTRACTOR, INCLUDED IN THE PROJECT COST AND BID, WITHOUT ADDITIONAL COST TO THE OWNER OR ENGINEER.
- 6. THE CONTRACTOR SHALL UPDATE RECORD DRAWINGS DAILY. ANNOTATE "AS INSTALLED" CONDITIONS IN RED INK ON HARD COPIES, INDICATING ALL CHANGES FROM THE ORIGINAL DRAWINGS MADE DURING THE INSTALLATION OF THE WORK. AT COMPLETION OF THE PROJECT, THE RECORD DRAWINGS SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE.
- 7. THE CONTRACTOR SHALL PROVIDE A MINIMUM ONE YEAR WARRANTY ON ALL MATERIALS AND LABOR. UNLESS NOTED OTHERWISE.
- 8. CONDITIONS MAY OCCUR THAT WILL REQUIRE MINOR REVISIONS IN ARRANGEMENT OF DUCTWORK, ATTACHMENTS, CONDUIT, ETC., ON VARIOUS SYSTEMS. SUCH MODIFICATIONS ARE DEEMED A PART OF THIS CONTRACT, AND SHALL BE SUBMITTED FOR REVIEW PRIOR TO COMMENCEMENT OF WORK.
- 9. ALL NEW WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICAN DISABILITIES ACT (A.D.A.) AND ALL STATE REQUIREMENTS.
- 10. CONTRACTOR SHALL COORDINATE ALL CONNECTION REQUIREMENTS OF OWNER-FURNISHED EQUIPMENT & EQUIPMENT FURNISHED BY OTHERS. PROVIDE NECESSARY MATERIAL AND LABOR FOR A COMPLETE INSTALLATION.
- 11. ALL PATCHING AND PAINTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL INCLUDE PATCHING AND PAINTING AS A RESULT OF MECHANICAL AND ELECTRICAL ALTERATIONS, CHANGES, AND ADDITIONS. COORDINATE WITH ARCHITECT.
- 12. REFER TO ARCHITECTURAL, CIVIL, STRUCTURAL & LANDSCAPE DRAWINGS FOR ADDITIONAL REQUIREMENTS. SEE SEPARATE PROJECT MANUAL FOR GENERAL CONDITIONS AND SPECIFICATIONS, IF APPLICABLE. WHERE DISCREPANCIES OCCUR BETWEEN THESE DRAWINGS AND THE PROJECT MANUAL, THE LATTER SHALL BE FOLLOWED, COORDINATE WITH ENGINEER.
- 13. CONCEAL ALL PIPING AND CONDUIT IN FINISHED AREAS UNLESS OTHERWISE NOTED. ALL PIPING, DEVICES, APPARATUS, EQUIPMENT, ETC., SHALL BE PROPERLY SUPPORTED AND BRACED VERTICALLY AND HORIZONTALLY IN ACCORDANCE WITH CODES AND AS REQUIRED TO PREVENT EXCESSIVE MOVEMENT.
- 14. IN THE EVENT OF SUBSTITUTION OF EQUIPMENT, IT SHALL BE THE RESPONSIBILITY OF THE SUBSTITUTING CONTRACTORS TO COORDINATE ADDITIONAL REQUIREMENTS FOR THESE ALTERATIONS. THE SUBSTITUTING CONTRACTORS SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL EQUIPMENT, CONDUCTORS, BOXES, CONDUIT, ADJUST OVER-CURRENT PROTECTION DEVICES, PROVIDE ADDITIONAL OCPD, LABOR, ADJUST CONDUCTOR SIZES, ADJUST CONDUCTOR QUANTITIES, AND OTHER NECESSARY APPURTENANCES AS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM PER THE MANUFACTURER'S RECOMMENDATIONS. INCLUDE ALL COSTS IN BASE BID.
- 15. THESE DRAWINGS DIAGRAMMATICALLY INDICATE THE INTENT OF THE PROPOSED CONSTRUCTION. SLIGHT VARIATIONS IN TENANT'S FURNITURE AND SITE CONDITIONS MAY REQUIRE OUTLETS TO BE RELOCATED TO ACCOMMODATE THE ACTUAL FURNITURE AND/OR OUTLETS. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL OUTLETS WITH OWNER'S REPRESENTATIVE, PERFORMING ADJUSTMENTS TO OUTLET LOCATIONS AS REQUIRED FOR A FINISHED AND FUNCTIONAL SYSTEM.













PROJECT INFORMATION PROJECT ADDRESS:

801 E Alameda St. Norman, OK 73069					
PROJECT NO.					
DATE	11-02-23				
DRAWN BY	CHECKED BY				
AB	GE				



ISSUE/ REVISIONS					
05/13/24	65% Review Set				

OWNER:

CITY OF NORMAN





REFERENCE NOTE SCHEDULE

STMBOL	LANDSCAPE QUANTITIES DESCRIPTION	aty	DETAIL
(LS-107)	PRO-STEEL BED EDGING - 3/16"×4"	114 LF	1
L5-108	SMALL LIMESTONE BOULDER 200LBS-400LBS	27	
LS-109	MEDIUM LIMESTONE BOULDER 900LBS-1,200LBS	15	
P-109	10" W. PLAYGROUND CURB	162 LF	7/D-2
P-110	ARCHITECTURAL CONCRETE WALLS	2 <i>0</i> 5 LF	6/D-3
S-101	24" \times 18" SINGLE POST EDUCATIONAL SIGN	2	9/D-2
5-102	24" \times 18" RAIL ATTACHEDT EDUCATIONAL SIGN	2	
5-103	$12'' \times 18''$ Double Post Educational sign	1	
x x y	BUFFALO GRASS SEED RE: GRASSING NOTES	22,589 SF	
	NATIVE SEED MIX RE: NATIVE SEED NOTES	19,961 SF	
	CONCRETE PAVING (4" WITH THICKENED EDGE)	3,708 SF	1/D-1
	CONCRETE PAVING (WITH DAVIS COLOR)	2,111 SF	1/D-1
	ARTIFICIAL TURF (FLAT)	5,844 SF	1/D-2
	POURED IN PLACE RUBERIZED SURFACE	811 SF	3/D-2
	BOARDWALK	583 SF	
0 0 	DECOMPOSED GRANITE LANDSCAPE	407 SF	9/D-1
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DECOMPOSED GRANITE TRAIL	3,133 SF	4/D-1

Landscape materials info

DECOMPOSED GRANITE AND LANDSCAPE BOULDERS

MINICK MATERIALS OR EQUAL 6665 NORTH INTERSTATE DRIVE NORMAN, OK 13069 PHONE: 405/329-2458 CONTACT: TIM SHANAHAN

LANDSCAPE SEAT STONE $18''W \times 24''H \times 60''L$ SEAT STONES

SILVERDALE STONE 30994 1415T RD ARKANSAS CITY, KS 67005 PH: (620) 442-5750 WWW.SILVERDALESTONE.COM

SITE FURNISHINGS INFO

PICNIC TABLES SOLID SERIES

92" L. 67" W. 18"/31" H. STREETLIFE OR EQUAL PH. 484 496 8280 WWW.STREETLIFE.COM HERENGRACHT 36, 2312LD LEIDEN, THE NETHERLANDS

INFO GRAPHIC SIGNS INFO

SINGLE POST W/ 24"W.X18"T. NPS PANEL -(2) TOTAL

-NPS STYLE SINGLE PEDESTAL (45 DEGREE) -IN-GROUND MOUNT -GRAPHIC: $18''H \times 24''W$. BLACK POWDER COATED ALUMINUM -NPS-1824-SPG1212

RAIL MOUNT W/ 24"W.XI8"T. NPS PANEL

-(2) TOTAL -NPS STYLE SINGLE PEDESTAL (45 DEGREE)

-FLAT RAIL MOUNT -GRAPHIC: $18''H \times 24''W$. BLACK POWDER COATED ALUMINUM -NPS-1824-FRP1212

DOUBLE POST W/ 12"W.X18"T. NPS PANEL -(1) TOTAL

-NPS STYLE SINGLE PEDESTAL (45 DEGREE) -IN-GROUND MOUNT

-GRAPHIC: $18''H \times 12''W$. BLACK POWDER COATED ALUMINUM -NPS-1872-DPG1212

FOSSIL INDUSTRIES, INC. OR APPROVED EQUAL 44 JEFRYN BOULEVARD DEER PARK, NY 11729 PHONE: (631) 254-4172 WEB: WWW.FOSSILGRAPHICS.COM



PROJECT INFORMATION

801 E Alameda St.

Norman, OK 73069

1-02-23

CHECKED BY

PROJECT ADDRESS:

PROJECT NO.

DRAWN BY

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DATE

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OWNER:

CITY OF NORMAN





PLAYGROUND EQUIPMENT

ITEM DESCRIPTION	MFG	PRODUCT #
ROPE CLIMBER	PLAYWORLD	TIANZI CUSTOM
SPINAMI	PLAYWORLD	ZZXXØ151
2-BAY ARCH SWING	PLAYWORLD	350-ARCH-2
HILL SLIDES	PLAYWORLD	ZZCH2805;3206;320 ⁻
ACORN SEAT	CRESPLAY	1000262
LOG TRAVERSE	ID SCULPTURE	AP <i>0</i> 15
STEPPING FORMS-LG	ID SCULPTURE	SF002-LLG
STEPPING FORMS-MD	ID SCULPTURE	SF002-LMD
STEPPING FORMS-SM	ID SCULPTURE	SF002-LSM
HILL HUMPS	MYTCOAT	BKW13-238-19-1M
9PHERES	AQUASEAL	3D HALF-14/18/24

PLAYGROUND EQUIPMENT INFO

HAPPY PLAYGROUNDS 8601 S. OXFORD AVE., TULSA, OK 74137 PHONE: (918)691-8245 CONTACT: DANIEL COLLING WWW.HAPPYPLAYGROUNDS.COM

PLAYGROUND SURFACING INFO

SYNTHETIC TURF = PLAYGROUND GRASS ULTRA FOREVERLAWN TULSA OR EQUAL 5722 E. 110TH ST. TULSA, OK 74137 PHONE: 918/877-8619

CONTACT: ROSS SPENCER POURED-IN-PLACE RUBBERIZED SURFACING

HAPPY PLAYGROUNDS 8601 S. OXFORD AVE., TULSA, OK 74137 PHONE: (918)691-8245 CONTACT: DANIEL COLLING WWW.HAPPYPLAYGROUNDS.COM

*ALL COLORS FOR PLAYGROUND ITEMS AND SURFACING TO BE SELECTED DURING THE SUBMITTAL PROCESS.

Surfacing Graphics Layout

STMBOL	DESCRIPTION	QTY	
	SAND - SYNTHETIC GRASS COLOR #	2,413 SF	
	VEGITATION - SYTHETIC TURF COLOR #	3,4 <i>0</i> 8 SF	
	WATER - PIP RUBER COLOR #	811 SF	

REFERENCE NOTE SCHEDULE

STMBOL	LANDSCAPE QUANTITIES DESCRIPTION	aty	
LS-107	PRO-STEEL BED EDGING - 3/16"×4"	114 LF	1
LS-108	SMALL LIMESTONE BOULDER 200LBS-400LBS	27	
LS-109	MEDIUM LIMESTONE BOULDER 900LBS-1,200LBS	15	
P-109	10" W. PLAYGROUND CURB	162 LF	ר/D-2
P-110	ARCHITECTURAL CONCRETE WALLS	2 <i>0</i> 5 LF	6/D-3
5-101	24" \times 18" SINGLE POST EDUCATIONAL SIGN	2	9/D-2
5-102	24" \times 18" RAIL ATTACHEDT EDUCATIONAL SIGN	2	
5-103	$12^{"} \times 18^{"}$ DOUBLE POST EDUCATIONAL SIGN	1	
×	BUFFALO GRASS SEED RE: GRASSING NOTES	22,589 SF	
	NATIVE SEED MIX RE: NATIVE SEED NOTES	19,961 SF	
	CONCRETE PAVING (4" WITH THICKENED EDGE)	3,708 SF	1/D-1
	CONCRETE PAVING (WITH DAVIS COLOR)	2,111 SF	1/D-1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	ARTIFICIAL TURF (FLAT)	5,844 SF	1/D-2
	POURED IN PLACE RUBERIZED SURFACE	811 SF	3/D-2
	BOARDWALK	583 SF	
	DECOMPOSED GRANITE LANDSCAPE	407 SF	3/D-1
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DECOMPOSED GRANITE TRAIL	3,133 SF	4/D-1

LANDSCAPE MATERIALS INFO

DECOMPOSED GRANITE AND LANDSCAPE BOULDERS

MINICK MATERIALS OR EQUAL 6665 NORTH INTERSTATE DRIVE NORMAN, OK 73069 PHONE: 405/329-2458 CONTACT: TIM SHANAHAN

LANDSCAPE SEAT STONE $18''W \times 24''H \times 60''L SEAT STONES$

SILVERDALE STONE 30994 1419T RD ARKANSAS CITY, KS 67005 PH: (620) 442-5750 WWW.SILVERDALESTONE.COM

SITE FURNISHINGS INFO

PICNIC TABLES SOLID SERIES 92" L. 67" W. 18"/31" H.

STREETLIFE OR EQUAL

PH. 484 496 8280 WWW.STREETLIFE.COM HERENGRACHT 36, 2312LD LEIDEN, THE NETHERLANDS CONTACT: SONNO WITJES

INFO GRAPHIC SIGNS INFO

SINGLE POST W/ 24"W.X18"T. NPS PANEL

-(2) TOTAL -NPS STYLE SINGLE PEDESTAL (45 DEGREE)

-IN-GROUND MOUNT -GRAPHIC: $18''H \times 24''W$. BLACK POWDER COATED ALUMINUM -NPS-1824-SPG1212

RAIL MOUNT W/ 24"W.XI8"T. NPS PANEL

-(2) TOTAL -NPS STYLE SINGLE PEDESTAL (45 DEGREE)

-FLAT RAIL MOUNT -GRAPHIC: $18''H \times 24''W$. BLACK POWDER COATED ALUMINUM -NPS-1824-FRP1212

DOUBLE POST W/ 12"W.X18"T. NPS PANEL -(1) TOTAL

-NPS STYLE SINGLE PEDESTAL (45 DEGREE) -IN-GROUND MOUNT -GRAPHIC: $18"H \times 12"W$. BLACK POWDER COATED ALUMINUM -NP9-1872-DPG1212

FOSSIL INDUSTRIES, INC. OR APPROVED EQUAL 44 JEFRYN BOULEVARD DEER PARK, NY 11729 PHONE: (631) 254-4172







PROJECT NO.	
DATE	11-02-23
DRAWN BY	CHECKED BY
AB	GE





OWNER:

CITY OF NORMAN

201 W Gray St, Norman, OK 73069

 \square PLAYGROUND EQUIPMENT AND SURFACING



4

LANDSCAPE QUANTITIES

DESCRIPTION

2*00*LBS-4*00*LBS

9*00*LBS-1,2*00*LBS

SYMBOL

(LS - 107)

(LS-IO8)

(LS-109)

P-109

P-110

5-101

5-102

5-103

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REFERENCE	NOTE	SCHEDULE

SMALL LIMESTONE BOULDER

MEDIUM LIMESTONE BOULDER

MINICK MATERIALS OR EQUAL 6665 NORTH INTERSTATE DRIVE

NORMAN, OK 13069

SILVERDALE STONE 30994 1419T RD

PH: (620) 442-5750

PICNIC TABLES SOLID SERIES

-(2) T*O*TAL

-(2) TOTAL

-(1) TOTAL

-IN-GROUND MOUNT

-NPS-1824-SPG1212

-FLAT RAIL MOUNT

-NP9-1824-FRP1212

-IN-GROUND MOUNT

-NPS-1872-DPG1212

44 JEFRYN BOULEVARD

WEB: WWW.FOSSILGRAPHICS.COM

DEER PARK, NY 11729

PHONE: (631) 254-4172

92" L. 67" W. 18"/31" H.

STREETLIFE OR EQUAL PH. 484 496 8280 WWW.STREETLIFE.COM

CONTACT: SONNO WITJES

PHONE: 405/329-2458 CONTACT: TIM SHANAHAN

LANDSCAPE SEAT STONE

ARKANSAS CITY, KS 67005

WWW.SILVERDALESTONE.COM

SITE FURNISHINGS INFO

HERENGRACHT 36, 2312LD LEIDEN, THE NETHERLANDS

-GRAPHIC: $18''H \times 24''W$. BLACK POWDER COATED ALUMINUM

-GRAPHIC: $18''H \times 24''W$. BLACK POWDER COATED ALUMINUM

-GRAPHIC: $18''H \times 12''W$. BLACK POWDER COATED ALUMINUM

INFO GRAPHIC SIGNS INFO

SINGLE POST W/ 24"W.X18"T. NPS PANEL

RAIL MOUNT W/ $24^{"}W.\times18^{"}T.$ NPS PANEL

DOUBLE POST W/ 72"W.X18"T. NPS PANEL

-NPS STYLE SINGLE PEDESTAL (45 DEGREE)

FOSSIL INDUSTRIES, INC. OR APPROVED EQUAL

-NPS STYLE SINGLE PEDESTAL (45 DEGREE)

-NPS STYLE SINGLE PEDESTAL (45 DEGREE)

 $18''W \times 24''H \times 60''L$ SEAT STONES

PRO-STEEL BED EDGING - 3/16"×4"

LANDSCAPE MATERIALS INFO

DECOMPOSED GRANITE AND LANDSCAPE BOULDERS

QTY

27

15

114 LF

DETAIL

1

10" W. PLAYGROUND CURB	162 LF	ד/D−2	
ARCHITECTURAL CONCRETE WALLS	2 <i>0</i> 5 LF	6/D-3	
24" \times 18" SINGLE POST EDUCATIONAL SIGN	2	9/D-2	
24" \times 18" RAIL ATTACHEDT EDUCATIONAL SIGN	2		
$12'' \times 18''$ DOUBLE POST EDUCATIONAL SIGN	1		
BUFFALO GRASS SEED RE: GRASSING NOTES	22,589 SF		
NATIVE SEED MIX RE: NATIVE SEED NOTES	19,961 SF		
CONCRETE PAVING (4" WITH THICKENED EDGE)	3,708 SF	1/D-1	
CONCRETE PAVING (WITH DAVIS COLOR)	2,111 SF	1/D-1	
ARTIFICIAL TURF (FLAT)	5,844 SF	1/D-2	
POURED IN PLACE RUBERIZED SURFACE	811 SF	3/D-2	PROJECT INFORMATIO
BOARDWALK	583 SF		
DECOMPOSED GRANITE LANDSCAPE	401 SF	9/D-1	801 E Alameda St. Norman, OK 73069
DECOMPOSED GRANITE TRAIL	3,133 SF	4/D-1	DATE 11-02-23
CAPE MATERIALS INFO			DRAWN BY CHECKED AB GE
ED GRANITE AND LANDSCAPE BOULDERS			
ERIALS OR EQUAL HINTERSTATE DRIVE (13069 /329-2458 MI SHANAHAN <u>SEAT STONE</u> X 60"L SEAT STONES			RE PARK -AHOMA
STONE RD CITY, KS 67005 12-5750 DALESTONE.COM			
URNISHINGS INFO			
ES 3 18"/31" H. OR EQUAL 6 8280			NON N
IFE.COM HT 36, 2312LD LEIDEN, THE NETHERLANDS ONNO WITJES			ISSUE/ REVISIONS
RAPHIC SIGNS INFO			05/13/24 65% Review Set
TW/ 24"W.×18"T. NPS PANEL			
SINGLE PEDESTAL (45 DEGREE) MOUNT			

CHECKED BY







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CITY OF NORMAN

201 W Gray St, Norman, OK 73069

OWNER:


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BOARDWALK AND TRAIL LAYOUT (NORTH)- PLAN VIEW

LANDSCAPE QUANTITIES

DESCRIPTION

2*00*LBS-400LBS

9*00*LBS-1,2*00*LBS

SYMBOL

(LS-107

(LS-108)

(LS-109)

P-109

P-110

-(1) TOTAL

-FLAT RAIL MOUNT

-NP9-1824-FRP1212

-IN-GROUND MOUNT

-NPS-1872-DPG1212

44 JEFRYN BOULEVARD DEER PARK, NY 11729 PHONE: (631) 254-4172

WEB: WWW.FOSSILGRAPHICS.COM

DOUBLE POST W/ 12"W.X18"T. NPS PANEL

-NPS STYLE SINGLE PEDESTAL (45 DEGREE)

FOSSIL INDUSTRIES, INC. OR APPROVED EQUAL

-GRAPHIC: $18''H \times 24''W$. BLACK POWDER COATED ALUMINUM

-GRAPHIC: $18''H \times 12''W$. BLACK POWDER COATED ALUMINUM

KEPEKEKGE	KUUIE	SGHEDULE

SMALL LIMESTONE BOULDER

MEDIUM LIMESTONE BOULDER

10" W. PLAYGROUND CURB

PRO-STEEL BED EDGING - 3/16"×4"

ARCHITECTURAL CONCRETE WALLS

5-101	24" \times 18" SINGLE POST EDUCATIONAL SIGN	2	9/D-2
5-102	24" \times 18" RAIL ATTACHEDT EDUCATIONAL SIGN	2	
5-103	$72'' \times 18''$ Double Post Educational Sign	1	
- + + + + + + - + + +	BUFFALO GRASS SEED RE: GRASSING NOTES	22,589 SF	
	NATIVE SEED MIX RE: NATIVE SEED NOTES	19,961 SF	
	CONCRETE PAVING (4" WITH THICKENED EDGE)	3,708 SF	1/D-1
	CONCRETE PAVING (WITH DAVIS COLOR)	2,111 SF	1/D-1
	ARTIFICIAL TURF (FLAT)	5,844 SF	1/D-2
	POURED IN PLACE RUBERIZED SURFACE	811 SF	3/D-2
	BOARDWALK	583 SF	
000	DECOMPOSED GRANITE LANDSCAPE	401 SF	9/D-1
	DECOMPOSED GRANITE TRAIL	3,133 SF	4/D-1
LANDS	CAPE MATERIALS INFO		
DECOMPOSE	D GRANITE AND LANDSCAPE BOULDERS		
MINICK MATE 6665 NORTH NORMAN, OK PHONE: 405/ CONTACT: TIN	RIALS OR EQUAL INTERSTATE DRIVE 13069 /329-2458 M SHANAHAN		
LANDSCAPE 18"W × 24"H >	SEAT STONE × 60"L SEAT STONES		
SILVERDALE 30994 141ST ARKANSAS (PH: (620) 44 WWW.SILVERD	STONE RD CITY, KS 67005 2-5750 PALESTONE.COM		
<u>SITE FU</u>	JRNISHINGS INFO		
PICNIC TABLE SOLID SERIES 92" L. 61" W.	<u>ЕӨ</u> Э 18"/31" Н.		
STREETLIFE C PH. 484 496 WWW.STREETL HERENGRAC CONTACT: SC	<u>DR EQUAL</u> 8280 JFE.COM HT 36, 2312LD LEIDEN, THE NETHERLANDS DNNO WITJES		
INFO G	RAPHIC SIGNS INFO		
SINGLE POST -(2) TOTAL -NPS STYLE -IN-GROUND -GRAPHIC: 18 -NPS-1824-SI	W/24"W.XI8"T. NPS PANEL SINGLE PEDESTAL (45 DEGREE) MOUNT 8"H X 24"W. BLACK POWDER COATED ALUMINUM PG1212		
RAIL MOUNT -(2) TOTAL -NPS STYLE	W/ 24"W.XI8"T. NPS PANEL SINGLE PEDESTAL (45 DEGREE)		

DETAIL

7/D−2

6/D-3

1

QTY

27

15

162 LF

2*0*5 LF

114 LF

PLANNING DESIGN GROUP LANDSCAPE ARCHITECTURE • RECREATIONAL DESIGN • LAND PLANNING 5314 S. YALE AVE., SUITE 710, TULSA, OK 74135 918.628.1255 918.628.1256 FAX WWW.PLANNINGDESIGNGROUP.COM

PROJECT INFORMATION

801 E Alameda St. Norman, OK 73069

1-02-23

CHECKED BY

PROJECT ADDRESS:

PROJECT NO.

DRAWN BY

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NORMAN NA NORMAN, (

ISSUE/ REVISIONS

05/13/24 65% Review Set

DATE

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OWNER:

CITY OF NORMAN





REFERENCE NOTE SCHIEDULE

SMALL LIMESTONE BOULDER

MEDIUM LIMESTONE BOULDER

10" W. PLAYGROUND CURB

BUFFALO GRASS SEED

RE: GRASSING NOTES

LANDSCAPE QUANTITIES

DESCRIPTION

2*00*LBS-400LBS

9*00*LBS-1,2*00*LBS

FERENCE	NOTE SCHEDULE	

PRO-STEEL BED EDGING - 3/16"×4"

ARCHITECTURAL CONCRETE WALLS

 $24'' \times 18''$ SINGLE POST EDUCATIONAL SIGN

 $12'' \times 18''$ DOUBLE POST EDUCATIONAL SIGN

 $24'' \times 18''$ RAIL ATTACHEDT EDUCATIONAL SIGN

	NATIVE SEED MIX RE: NATIVE SEED NOTES	19,961 SF		
	CONCRETE PAVING (4" WITH THICKENED EDGE)	3,708 SF	1/D-1	
	CONCRETE PAVING (WITH DAVIS COLOR)	2,111 SF	1/D-1	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	ARTIFICIAL TURF (FLAT)	5,844 SF	1/D-2	
	POURED IN PLACE RUBERIZED SURFACE	811 SF	3/D-2	
	BOARDWALK	583 SF		PROJECT ADDRESS:
	DECOMPOSED GRANITE LANDSCAPE	401 SF	9/D-1	Norman, OK 73069
	DECOMPOSED GRANITE TRAIL	3,133 SF	4/D-1	PROJECT NO. DATE 11-02-23
LANDS	CAPE MATERIALS INFO			DRAWN BYCHECKED BYABGE
DECOMPOSE	D GRANITE AND LANDSCAPE BOULDERS			
MINICK MATE 6665 NORTH NORMAN, OK PHONE: 405/ CONTACT: TIM	RIALS OR EQUAL INTERSTATE DRIVE 13069 /329-2458 M SHANAHAN			ARK OMA
LANDSCAPE 18"W × 24"H 3	<u>SEAT STONE</u> × 60"L SEAT STONES			AHG
91LVERDALE 30994 1419T ARKAN9A9 (PH: (620) 44 WWW.91LVERD	STONE RD CITY, KS 67005 2-5750 PALESTONE.COM			
SITE FU	JRNISHINGS INFO			
PICNIC TABL SOLID SERIES 92" L. 61" W.	Е <u>9</u> Э 18"/31" Н.			NON
<u>STREETLIFE (</u> PH. 484 496 WWW.STREETL HERENGRAC CONTACT: SC	DR EQUAL 8280 JFE.COM HT 36, 2312LD LEIDEN, THE NETHERLANDS DNNO WITJES			ISSUE/ REVISIONS
<u>INFO G</u>	RAPHIC SIGNS INFO			05/13/24 65% Review Set
SINGLE POST -(2) TOTAL -NPS STYLE -IN-GROUND -GRAPHIC: 12 -NPS-1824-SI	W/24"W.XI8"T. NPS PANEL SINGLE PEDESTAL (45 DEGREE) MOUNT 8"H X 24"W. BLACK POWDER COATED ALUMINUM PG1212			
RAIL MOUNT -(2) TOTAL	<u>ש/ 24"ש.×ו8"ד. NPS PANEL</u>			
-NPS STYLE -FLAT RAIL N	SINGLE PEDESTAL (45 DEGREE) 10UNT			
-GRAPHIC: 12 -NPS-1824-Ff	$8''H \times 24''W.$ BLACK POWDER COATED ALUMINUM RP1212			OWNER:
DOUBLE POS -(1) TOTAL	37 W/ 72"W.×18"T. NPS PANEL			
-NPS STYLE -IN-GROUND	SINGLE PEDESTAL (45 DEGREE) MOUNT			
-GRAPHIC: 12 -NPS-1872-D	8"H \times 72"W. BLACK POWDER COATED ALUMINUM PG1212			201 W Gray St, Norman, OK 73069
FOSSIL INDUS 44 JEFRYN E	TRIES, INC. OR APPROVED EQUAL BOULEVARD			
DEER PARK PHONE: (631)	, NY 11729 1 254-4172			
	DSSILGRAPHICS.COM			1

DETAIL

2−D/ד

6/D-3

9/D-2

1

QTY

27

15

2

162 LF

2*0*5 LF

22,589 SF

114 LF

PLANNING DESIGN GROUP LANDSCAPE ARCHITECTURE • RECREATIONAL DESIGN • LAND PLANNING 5314 S. YALE AVE., SUITE 710, TULSA, OK 74135 918.628.1255 918.628.1256 FAX WWW.PLANNINGDESIGNGROUP.COM

ltem 2.

 \smile SOUTH BANK LAYOUT PLAN



CALL		LIGHT S	OURCE		
OUT	LUMENS	CCT	CRI	WATT]
K1	1260LM	3000K	90CRI	7 W	E
К2	1260LM	3000K	90CRI	7 W	E
Z1	8100LM	3000K	70CRI	45 W	
Z2	8100LM	3000K	70CRI	45 W	

B. SUBMITTING AGENT SHALL PROVIDE ALL REQUESTED COLOR SAMPLES, WORKING FIXTURE SAMPLES AND OR PHOTOMETRIC CALCULATIONS WITHIN 10 DAYS IF REQUESTED FROM THE DESIGN TEAM. C. THE DESIGN TEAM SHALL RESERVE THE RIGHT TO APPROVE OR REJECT ANY SUBSTITUTED FIXTURE BASED ON ANY OF THE FOLLOWING: AESTHETICS, PERFORMANCE, FEATURES, QUALITY, COST, AND LEAD TIMES.
 2. SEE LANDCAPE ARCHITECTURAL PLANS FOR ADDITIONAL LIGHTING INFORMATION - ELEVATIONS, DETAILS, ETC.

	LIGHTING FIXTURE SCHEDULE					
DESCRIPTION	MOUNTING	MANUFACTURER	CATALOG NUMBER	GENERAL NOTES		
ARD SOLAR LIGHT FIXTURE	BOLLARD MOUNTED	GRID SHIFT SOLAR LIGHTING	CS-BOL-SEN-6R-II-36"	SEE BOLLARD DETAIL 2/E-001.		
ARD SOLAR LIGHT FIXTURE	BOLLARD MOUNTED	GRID SHIFT SOLAR LIGHTING	CS-BOL-SEN-6R-V-36"	SEE BOLLARD DETAIL 2/E-001.		
ELE POLE SOLAR FIXTURE WITH 4 DISTRIBUTION.	POLE MOUNTED	GRID SHIFT SOLAR LIGHTING	CS-SIE-2731-45-8100-IV-30K-MB1-BRZ-Y-1	20' SQUARE STRAIGHT ALUMINUM POLE, ON 3' BASE. SEE POLE BASE DETAIL 1/E-001		
GLE POLE SOLAR FIXTURE WITH E 2 DISTIBUTION.	POLE MOUNTED	GRID SHIFT SOLAR LIGHTING	CS-SIE-2731-45-8100-II-30K-MB1-BRZ-Y-1	20' SQUARE STRAIGHT ALUMINUM POLE, ON 3' BASE. SEE POLE BASE DETAIL 1/E-001		

ELECTRICAL SITE PLAN

CEC CORPORATION WWW.CONNECTCEC.COM OK CA#: 32 EXP.: 2024-06-30 CEC PROJECT 230413



LANDSCAPE QUANTITIES

STMBOL	DESCRIPTION	aty	
LS-107	PRO-STEEL BED EDGING - 3/16"×4"	114 LF	1
L5-108	SMALL LIMESTONE BOULDER 200LBS-400LBS	27	
LS-109	MEDIUM LIMESTONE BOULDER 900LBS-1,200LBS	15	
STMBOL	DESCRIPTION	aty	
· · · · · · · · · · ·	BUFFALO GRASS SEED RE: GRASSING NOTES	22,681 SF	
	NATIVE SEED MIX RE: NATIVE SEED NOTES	19,961 SF	
STMBOL	DESCRIPTION	aty	
	PLANTING BED RE: PLANTING NOTES	14.52 CY	1

GENERAL LANDSCAPE NOTES

H:HEIGHT, S:SPREAD CAL:CALIPER, O.C.: ON CENTER, B&B:BALLED & BURLAPPED, GAL:GALLON, ABH: AT BREAST HEIGHT

AT BREAST HEIGHT THE MATERIAL LIST IS PROVIDED FOR THE CONTRACTOR'S CONVENIENCE. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FIGURING ALL QUANTITIES FROM THE PLANTING PLAN AND COVERAGES FOR ALL BED AREAS. WHEN DISCREPANCIES OCCUR BETWEEN THE MATERIAL LIST AND THE PLANTING PLAN, THE PLANTING PLAN SUPERSEDES THE MATERIAL LIST IN ALL CASES. THE LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR ALL PLANTS AND COVERAGE OF BED AREAS ON THE PLANTING PLAN. TREES IN THE LANDSCAPE MATERIAL LIST ARE TO BE OBTAINED FROM SPECIFIC VENDORS OR APPROVED EQUAL; REFER TO APPROVED VENDER LIST BELOW. TREE NOTES

I. ALL TREES TO BE WATERED WITH SLOW DRIP 20 GALLON WATERING BAG. CONTRACTOR TO INCLUDE WATERING BAGS IN BID. CONTRACTOR RESPONSIBLE FOR INSTALLING WATERING BAGS.

PLANTING NOTES

- I. OUTLINE ALL PLANTING BEDS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO COMMENCING WITH BED PREPARATION.
- 2. STAKE ALL TREE LOCATIONS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO DIGGING TREE PITS.
- ALL WEEDS AND GRASSES FROM PLANTING BEDS. IF BERMUDA GRASS IS PRESENT, IT SHALL BE ERADICATED BY APPROVED MEANS.
 STEEL EDGING SHALL BE 3/16" X 4" STEEL LANDSCAPE EDGING WITH STEEL STAKES AS MANUFACTURED BY PRO STEEL; FORT WORTH, TEXAS.
- 5. WITHIN APPROVED BED AREAS, PREPARE SOIL BY ROTO-TILLING THREE INCHES (3") OF COMPOST (BACK TO NATURE SOIL CONDITIONER) OVER THE ENTIRE BED AREA TO A DEPTH OF SIX INCHES
- (6"). 6. SPREAD AN EVEN THREE INCHES (3") LAYER OF MULCH WITHIN ALL TREE WELLS.
- 7. ON ALL TREES TOP SIX INCHES (6") OF BACKFILL SHALL CONSIST OF A I.I MIXTURE OF COMPOST
- 8. AROUND ALL TREES FORM A CIRCULAR RING FREE OF VEGETATION. CIRCLE SHALL BE TRUE IN FORM AND CENTERED ON TREE.

9. ALL TREES SHALL BE STAKED WITH TWO (2) GREEN METAL SPLIT TEE FENCE POSTS AND TIED WITH WIRE THROUGH THE HOSE AS PER DETAIL. IO.APPLY OSMOCOTE AT A RATE OF 1/2 POUND PER TREE AND I POUND PER 100 SQUARE FEET TO SHRUB AND GROUNDCOVER PLANTING BEDS.

SODDING NOTES

- . REFER TO PROJECT MANUAL FOR FURTHER SPECIFICATIONS. 2. ALL NETTING TO BE REMOVED FROM SOD DURING INSTALLATION.
- 3. FINE GRADE LAWN AREAS TO SMOOTH, EVEN SURFACE WITH A LOOSE, UNIFORMLY FINE TEXTURE. FLOAT SMOOTH TO REMOVE RIDGES AND FILL DEPRESSIONS AS REQUIRED TO REMOVE RIDGES AND FILL DEPRESSIONS AS REQUIRED TO DRAIN.
- 4. APPLY APPROVED FERTILIZER ON FINISH GRADE PRIOR TO SOD INSTALLATION AT A RATE OF ONE (1) POUND OF ACTUAL NITROGEN PER 1000 SQUARE FEET.
- 5. ON 3:1 SLOPES OR GREATER SOD SHALL BE INSTALLED PERPENDICULAR TO SLOPE AND SECURED WITH APPROVED WOOD STAKES AS NEEDED TO PREVENT SOD FROM SLOUGHING OFF SLOPES.
- 6. THE SITE IS TO BE KEPT CLEAN AND ORDERLY. ALL TRASH, INCLUDING DEBRIS FROM REMOVING WEEDS OR ROCKS FROM SODDED AREAS, SHALL BE REMOVED FROM THE SITE AS WORK PROGRESSES. ALL PAVED AREAS SHALL BE KEPT CLEAN BY HOSING AND/OR SWEEPING.
- 7. CONTRACTOR IS RESPONSIBLE FOR SOLID SODDING ALL AREAS DISTURBED DURING
- CONSTRUCTION OPERATIONS. 8. LAY SOD TO FORM A SOLID MASS TIGHTLY-FITTED JOINTS. DO NOT OVERLAY EDGES. STAGGER
- STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. 9. WATER SOD LIGHTLY AND THEN ROLL WITH A WATER FILLED LAWN ROLLER TO ENSURE CONTACT WITH SUBGRADE AND TO INSURE A SMOOTH SURFACE FREE OF CLUMPS AND DEPRESSIONS.

NATIVE SEED NOTES

- BEFORE PLANTING, CONTRACTOR MUST COMPACT TOPSOIL TO 85% AND REMOVE ALL OTHER VEGETATION THAT MAY BE PRESENT, SUCH AS OTHER GRASSES OR BROADLEAVED WEEDS. 2. SEED INSTALLATION IS TO OCCUR FROM FALL TO EARLY SPRING OR AS RECOMMENDED BY SUPPLIER. 3. SEED IS TO BE INSTALLED USING THE NO-TILL DRILL METHOD IN ALL AREAS. 4. SEED IS TO BE INSTALLED PER RATE BELOW.
- 5. FOR ANY ADDITIONAL INFORMATION ON NATIVE GRASS INSTALLATION, CONTRACTOR IS TO REFER TO THE NATURAL RESOURCES CONSERVATION SERVICE (NRCS): ESTABLISHING NATIVE GRASSES RECOMMENDATIONS.

NATIVE SEED PRODUCT INFO

NATIVE TRAIL MIX @ ILBS/I.0005.F + BIG BLUE@ 4LBS/ACRE, INDIAN GRASS@ 3LBS/ACRE, PRAIRE DROPSEED@ I/4LBS/ACRE, SWITCH GRASS@I/2LBS/ACRE.

PROVIDED BY NATIVE AMERICAN SEED, OR APPROVED EQUAL JUNCTION, TX

PH: 1(800)728-4045 WEB WWW.SEEDSOURCE.COM

EMAIL: INFO@SEEDSOURCE.COM

LANDSCAPE MATERIALS INFO

DECOMPOSED GRANITE AND LANDSCAPE BOULDERS

MINICK MATERIALS OR EQUAL 6665 NORTH INTERSTATE DRIVE NORMAN, OK 13069 PHONE: 405/329-2458 CONTACT: TIM SHANAHAN

SYNTHETIC TURF = PLAYGROUND GRASS ULTRA

FOREVERLAWN TULSA OR EQUAL 5722 E. 110TH ST. TULSA, OK 74137 PHONE: 918/877-8619 CONTACT: ROSS SPENCER

POURED-IN-PLACE RUBBERIZED SURFACING

HAPPY PLAYGROUNDS 8601 S. OXFORD AVE., TULSA, OK 74137 PHONE: (918) 691-8245 CONTACT: DANIEL COLLING WWW.HAPPYPLAYGROUNDS.COM

*ALL COLORS FOR PRODUCTS TO BE SELECTED DURING THE SUBMITTAL PROCESS.



5314 S. YALE AVE., SUITE 710, TULSA, OK 74135 918.628.1255 918.628.1256 FAX WWW.PLANNINGDESIGNGROUP.COM

PROJECT INFORMATION

PROJECT ADDRESS:

801 E Alameda St. Norman, OK 73069				
PROJECT NO.				
DATE	11-02-23			
DRAWN BY	CHECKED BY			
AB	GE			

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OWNER:

CITY OF NORMAN





LANDSCAPE QUANTITIES

-			•
STMBOL	DESCRIPTION	aty	
L5-107	PRO-STEEL BED EDGING - 3/16"×4"	114 LF	11/LS-3
STMBOL	DESCRIPTION	aty	
	CEDAR MULCH 4" DEPTH IN BEDS 1/2 BAG PER TREE	14.52 CY	
	BACK TO NATURE 4" DEPTH IN BEDS 1/2 BAG PER TREE	14.52 CY	

PLA	NT S	GHEDULE				
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
TDEEC						
uc	3	ULMUS CRASSIFOLIA	CEDAR ELM	4" CAL.	в\$в	
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
AH	52		ARKANSAS BLUESTAR	1 GAL	POT	18" O.C.
ATBM	17	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	1 GAL.	POT	24" O.C.
CAKF	17	CALAMAGROSTIS × ACUTIFLORA 'KARL FORESTER'	KARL FORESTER GRASS	3 GAL.	POT	24" O.C.
CTTV	14	CAMPSIS X TAGLIABUANA 'HOMR' TM	MADAME ROSY TRUMPET VINE	I GAL	POT	18" O.C.
CMR	23	COREOPSIS X 'MERCURY RISING'	MERCURY RISING TICKSEED	I GAL.	POT	12" O.C.
CSD	2	CORNUS STOLONIFERA	ARCTIC FIRE RED TWIG DOGWOOD	5 GAL.	POT	48" O.C.
EPKK	31	ECHINACEA PURPUREA 'KIM'S KNEE HIGH'	KIM'S KNEE HIGH CONEFLOWER	I GAL.	POT	24" O.C.
EPCF	67	ECHINACEA PURPUREA `PAS102911` TM	POWWOW WILD BERRY CONEFLOWER	I GAL	POT	18" O.C.
EHHR	53	EQUISETUM HYEMALE	HORSETAIL REED	I GAL	POT	18" O.C.
GASC	32	GAILLARDIA ARISTATA 'SPINTOP COPPER SUN'	SPINTOP COPPER SUN BLANKET FLOWER	I GAL.	POT	12" O.C.
GLWB	40	GAURA LINDHEIMERI 'WHIRLING BUTTERFLIES'	WHIRLING BUTTERFLIES GAURA	I GAL.	POT	18" O.C.
HPP	14	HESPERALOE PARVIFLORA 'PERPA' PP #21729	BRAKELIGHTS RED YUCA	5 GAL.	POT	30" O.C.
KIBS	56	KALIMERIS INCISA 'BLUE STAR'	BLUE STAR JAPANESE ASTER	I GAL	POT	12" O.C.
KTRP	51	KNIPHOFIA TRIANGULARIS	DWARF RED HOT POKER	I GAL	POT	12" O.C.
LMPE	60	LIRIOPE MUSCARI EXC 051 TM	PURPLE EXPLOSION LILYTURF	I GAL	POT	12" O.C.
NFWL	29	NEPETA × FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	3 GAL.	POT	24" O.C.
PVHM	34	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	3 GAL.	POT	30" O.C.
PALS	28	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE'	LITTLE SPIRE RUSSIAN SAGE	I GAL	POT	18" O.C.
9990	62	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION'	LITTLE BLUESTEM	3 GAL.	POT	30" O.C.
SHPD	47	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	I GAL	POT	24" O.C.

GENERAL LANDSCAPE NOTES

H:HEIGHT, S:SPREAD CAL:CALIPER, O.C.: ON CENTER, B&B:BALLED & BURLAPPED, GAL:GALLON, ABH: AT BREAST HEIGHT

THE MATERIAL LIST IS PROVIDED FOR THE CONTRACTOR'S CONVENIENCE. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FIGURING ALL QUANTITIES FROM THE PLANTING PLAN AND COVERAGES FOR ALL BED AREAS. WHEN DISCREPANCIES OCCUR BETWEEN THE MATERIAL LIST AND THE PLANTING PLAN, THE PLANTING PLAN SUPERSEDES THE MATERIAL LIST IN ALL CASES. THE LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR ALL PLANTS AND COVERAGE OF BED AREAS ON THE PLANTING PLAN. TREES IN THE LANDSCAPE MATERIAL LIST ARE TO BE OBTAINED FROM SPECIFIC VENDORS OR APPROVED EQUAL; REFER TO APPROVED VENDER LIST BELOW.

TREE NOTES

. ALL TREES TO BE WATERED WITH SLOW DRIP 20 GALLON WATERING BAG. CONTRACTOR TO INCLUDE WATERING BAGS IN BID. CONTRACTOR RESPONSIBLE FOR INSTALLING WATERING BAGS.

PLANTING NOTES

- . OUTLINE ALL PLANTING BEDS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO COMMENCING WITH BED PREPARATION. 2. STAKE ALL TREE LOCATIONS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO DIGGING
- TREE PITS.
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 REMOVE ALL WEEDS AND GRASSES FROM PLANTING BEDS. IF BERMUDA GRASS IS PRESENT, IT SHALL BE ERADICATED BY APPROVED MEANS.
 STEEL EDGING SHALL BE 3/16" X 4" STEEL LANDSCAPE EDGING WITH STEEL STAKES AS MANUFACTURED BY PRO STEEL; FORT WORTH, TEXAS.
 WITHIN APPROVED BED AREAS, PREPARE SOLL BY ROTO-TILLING THREE INCHES (3") OF COMPOST AND AREAS A
- (BACK TO NATURE SOIL CONDITIONER) OVER THE ENTIRE BED AREA TO A DEPTH OF SIX INCHES
- (6"). 6. SPREAD AN EVEN THREE INCHES (3") LAYER OF MULCH WITHIN ALL TREE WELLS. 7. ON ALL TREES TOP SIX INCHES (6") OF BACKFILL SHALL CONSIST OF A 1:1 MIXTURE OF COMPOST
- TO SOIL. 8. AROUND ALL TREES FORM A CIRCULAR RING FREE OF VEGETATION. CIRCLE SHALL BE TRUE IN FORM AND CENTERED ON TREE.
- 9. ALL TREES SHALL BE STAKED WITH TWO (2) GREEN METAL SPLIT TEE FENCE POSTS AND TIED
- WITH WIRE THROUGH THE HOSE AS PER DETAIL. 10.APPLY OSMOCOTE AT A RATE OF 1/2 POUND PER TREE AND I POUND PER 100 SQUARE FEET TO SHRUB AND GROUNDCOVER PLANTING BEDS.

SODDING NOTES

- REFER TO PROJECT MANUAL FOR FURTHER SPECIFICATIONS. 2. ALL NETTING TO BE REMOVED FROM SOD DURING INSTALLATION. 3. FINE GRADE LAWN AREAS TO SMOOTH, EVEN SURFACE WITH A LOOSE, UNIFORMLY FINE TEXTURE.
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- ONE (1) POUND OF ACTUAL NITROGEN PER 1000 SQUARE FEET. 5. ON 3:I SLOPES OR GREATER SOD SHALL BE INSTALLED PERPENDICULAR TO SLOPE AND SECURED
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LANDSCAPE MATERIALS INFO

DECOMPOSED GRANITE AND LANDSCAPE BOULDERS

MINICK MATERIALS OR EQUAL 6665 NORTH INTERSTATE DRIVE NORMAN, OK 73069 PHONE: 405/329-2458 CONTACT: TIM SHANAHAN

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PLANNING DESIGN GROUP LANDSCAPE ARCHITECTURE ● RECREATIONAL DESIGN ● LAND PLANNING 5314 S. YALE AVE., SUITE 710, TULSA, OK 74135 918.628.1255 918.628.1256 FAX WWW.PLANNINGDESIGNGROUP.COM

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OWNER:

CITY OF NORMAN









	9 1 9					
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
TREES						
uc	3	ULMUS CRASSIFOLIA	CEDAR ELM	4" CAL.	B\$B	
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
SHRUBS						
АН	52	AMSONIA HUBRICHTII	ARKANSAS BLUESTAR	1 GAL.	POT	18" O.C.
ATBM	דו	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	1 GAL	POT	24" O.C.
CAKF	17	CALAMAGROSTIS X ACUTIFLORA 'KARL FORESTER'	KARL FORESTER GRASS	3 GAL.	POT	24" O.C.
CTTV	14	CAMPSIS X TAGLIABUANA 'HOMR' TM	MADAME ROSY TRUMPET VINE	1 GAL.	POT	18" O.C.
CMR	23	COREOPSIS X 'MERCURY RISING'	MERCURY RISING TICKSEED	1 GAL.	POT	12" O.C.
CSD	2	CORNUS STOLONIFERA	ARCTIC FIRE RED TWIG DOGWOOD	5 GAL.	POT	48" O.C.
EPKK	37	ECHINACEA PURPUREA 'KIM'S KNEE HIGH'	KIM'S KNEE HIGH CONEFLOWER	1 GAL	POT	24" O.C.
EPCF	67	ECHINACEA PURPUREA `PA9102911` TM	POWWOW WILD BERRY CONEFLOWER	1 GAL	POT	18" O.C.
EHHR	53	EQUISETUM HYEMALE	HORSETAIL REED	1 GAL.	POT	18" O.C.
GASC	32	GAILLARDIA ARISTATA 'SPINTOP COPPER SUN'	SPINTOP COPPER SUN BLANKET FLOWER	1 GAL.	POT	12" O.C.
GLWB	40	GAURA LINDHEIMERI 'WHIRLING BUTTERFLIES'	WHIRLING BUTTERFLIES GAURA	1 GAL.	POT	18" O.C.
HPP	14	HESPERALOE PARVIFLORA 'PERPA' PP #21729	BRAKELIGHTS RED YUCA	5 GAL.	POT	30" O.C.
KIBS	56	KALIMERIS INCISA 'BLUE STAR'	BLUE STAR JAPANESE ASTER	I GAL	POT	12" O.C.
KTRP	51	KNIPHOFIA TRIANGULARIS	DWARF RED HOT POKER	1 GAL.	POT	12" O.C.
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NFWL	29	NEPETA X FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	3 GAL.	POT	24" O.C.
PVHM	34	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	3 GAL	POT	30" O.C.
PALS	28	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE'	LITTLE SPIRE RUSSIAN SAGE	1 GAL	POT	18" O.C.
555 <i>0</i>	62	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION'	LITTLE BLUESTEM	3 GAL.	POT	30" O.C.
SHPD	41	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	I GAL	POT	24" O.C.

LANDSCAPE MATERIALS INFO

DECOMPOSED GRANITE, BOULDERS AND RAIN GARDEN ROCK

MINICK MATERIALS OR EQUAL 6665 NORTH INTERSTATE DRIVE NORMAN, OK 13069 PHONE: 405/329-2458 CONTACT: TIM SHANAHAN

SYNTHETIC TURF = PLAYGROUND GRASS ULTRA

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*ALL COLORS FOR PRODUCTS TO BE SELECTED DURING THE SUBMITTAL PROCESS.

landscape Quantities

SYMBOL	DESCRIPTION	aty
LS-107	PRO-STEEL BED EDGING - 3/16"×4"	114 LF
STMBOL	DESCRIPTION	QTY
	CEDAR MULCH 4" DEPTH IN BEDS	14.52

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1/2 BAG PER TREE

BACK TO NATURE 4" DEPTH IN BEDS 1/2 BAG PER TREE

14.52 CY

14.52 CY

H:HEIGHT, S:SPREAD CAL:CALIPER, O.C.: ON CENTER, B&B:BALLED & BURLAPPED, GAL:GALLON, ABH: AT BREAST HEIGHT THE MATERIAL LIST IS PROVIDED FOR THE CONTRACTOR'S CONVENIENCE. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FIGURING ALL QUANTITIES FROM THE PLANTING PLAN AND COVERAGES FOR ALL BED AREAS. WHEN DISCREPANCIES OCCUR BETWEEN THE MATERIAL LIST AND THE PLANTING PLAN, THE PLANTING PLAN SUPERSEDES THE MATERIAL LIST IN ALL CASES. THE LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR ALL PLANTS AND COVERAGE OF BED AREAS ON THE PLANTING PLAN. TREES IN THE LANDSCAPE MATERIAL LIST ARE TO BE OBTAINED FROM SPECIFIC VENDORS OR APPROVED EQUAL; REFER TO APPROVED VENDER LIST BELOW.

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PLANTING NOTES

GENERAL LANDSCAPE NOTES

- I. OUTLINE ALL PLANTING BEDS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO COMMENCING WITH BED PREPARATION.
- 2. STAKE ALL TREE LOCATIONS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO DIGGING TREE PITS.
- 3. REMOVE ALL WEEDS AND GRASSES FROM PLANTING BEDS. IF BERMUDA GRASS IS PRESENT, IT SHALL BE ERADICATED BY APPROVED MEANS.
- 4. STEEL EDGING SHALL BE 3/16" X 4" STEEL LANDSCAPE EDGING WITH STEEL STAKES AS MANUFACTURED BY PRO STEEL; FORT WORTH, TEXAS.
- 5. WITHIN APPROVED BED AREAS, PREPARE SOIL BY ROTO-TILLING THREE INCHES (5") OF COMPOST (BACK TO NATURE SOIL CONDITIONER) OVER THE ENTIRE BED AREA TO A DEPTH OF SIX INCHES
- (6"). 6. SPREAD AN EVEN THREE INCHES (3") LAYER OF MULCH WITHIN ALL TREE WELLS. 7. ON ALL TREES TOP SIX INCHES (6") OF BACKFILL SHALL CONSIST OF A 1:1 MIXTURE OF COMPOST
- TO SOIL 8. AROUND ALL TREES FORM A CIRCULAR RING FREE OF VEGETATION. CIRCLE SHALL BE TRUE IN FORM AND CENTERED ON TREE.
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PLANNING DESIGN GROUI LANDSCAPE ARCHITECTURE • RECREATIONAL DESIGN • LAND PLANNING 5314 S. YALE AVE., SUITE 710, TULSA, OK 74135 918.628.1255 918.628.1256 FAX WWW.PLANNINGDESIGNGROUP.COM



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OWNER:

CITY OF NORMAN









P-PDG-PAV-03

4"X6" SOUTHERN YELLOW PINE GROUND CONTACT PRESSURE STAIR RISER - TYP. (ENDS CUT AS SHOWN) ν+<u>μ</u>+=^μ <u>↓</u>₩4 1 π

3' L. #5 HAMMERED INTO NATIVE GRADE THROUGH TRAIL EDGE @ 4'-0" O.C.

P-PDG-GRO-TRAI-03



PROJECT INFORMATION PROJECT ADDRESS:

801 E Alameda St. Norman, OK 73069 PROJECT NO. 1-02-23 DATE DRAWN BY CHECKED BY

₹ ₩ NATURE PAF V, OKLAHOM

NORMAN N NORMAN,

ISSUE/ REVISIONS 05/13/24 65% Review Set

OWNER:

CITY OF NORMAN

201 W Gray St, Norman, OK 73069



CONSTRUCTION DETAILS







P-PDG-WAL-ARCH-18

P-PDG-WAL-ARCH-19

I. FINISHED GRADE TO BE A MINIMUM OF 6" ABOVE TOP OF ANY FOOTING.

- 2. WRITTEN DIMENSIONS HAVE PRIORITY OVER SCALED DIMENSIONS.
- 3. ALL VERTICAL DIMENSIONS ARE TAKEN FROM THE TOP OF FOOTING.
- 4. REFER TO SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS

5. ALL CONSTRUCTION TO BE IN STRICT ACCORDANCE WITH CURRENT CITY OF NORMAN SPECIFICATIONS AND STANDARDS ..

PROJECT INFORMATION PROJECT ADDRESS:

801 E Alameda St. Norman, OK 73069 PROJECT NO. DATE 1-02-23 DRAWN BY CHECKED BY ΔR



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OWNER:

CITY OF NORMAN

201 W Gray St, Norman, OK 73069



CONSTRUCTION DETAILS





P-PDG-BRI-02

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PROJECT INFORMATION

PROJECT ADDRESS:

AR

801 E Alameda St. Norman, OK 73069 PROJECT NO. DATE 1-02-23 CHECKED BY DRAWN BY



ISSUE/ REVISIONS 05/13/24 65% Review Set

OWNER:

CITY OF NORMAN

201 W Gray St, Norman, OK 73069



CONSTRUCTION DETAILS

DETAIL NOTES

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STRUCTURAL SPECIAL INSPECTION REQUIREMENTS

INTERNATIONAL BUILDING CODE (IBC) SECTION 1704 REQUIRES A SPECIAL INSPECTOR TO REPORT RESULTS OF OBSERVATION AND/OR TESTING OF THE WORK ASSIGNED FOR CONFORMANCE TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE FOLLOWING INSPECTION REQUIREMENTS SHALL COMPLIMENT INSPECTIONS SPECIFIED ELSEWHERE:

- 1. THE OWNER SHALL RETAIN THE SERVICES OF AN APPROVED AGENCY TO MAKE AVAILABLE A SPECIAL INSPECTOR WHO SHALL PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK INDICATED IN THE FOLLOWING SPECIAL INSPECTION TABLES. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE. TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- 2. THE SPECIAL INSPECTOR SHALL KEEP RECORDS OF INSPECTIONS PER SECTION 1704 REQUIREMENTS AND SHALL SUBMIT COPIES OF INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE OWNER, AND THE STRUCTURAL ENGINEER-OF-RECORD.
- 3. IN ACCORDANCE WITH SECTION 1704.2, THESE SPECIAL INSPECTION REQUIREMENTS ALSO APPLY TO STRUCTURAL LOAD BEARING MEMBERS OR ASSEMBLIES WHERE FABRICATION IS BEING PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP.
- 4. REFER TO THE "GENERAL NOTES" FOR DETAILED REQUIREMENTS PERTAINING TO THE TYPES OF WORK INDICATED IN THE FOLLOWING SPECIAL INSPECTION TABLES.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS (IBC 2018 TABLE 1705.6)

	TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTIC
1.	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	x
2.	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	x
3.	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	х
4.	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	Х	-
5.	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	х

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION (IBC 2018 TABLE 1705.3)

		•			-
	TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD ^a	IBC REFERENCE
1.	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-	х	ACI 318: CH. 20, 25.2, 25.3, 26.5.1-26.5.3	1908.4
2.	REINFORCING BAR WELDING:				
	A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	х	AWS D1 4	
	 B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND 	-	х	ACI 318: 26.5.4	-
	C. INSPECT ALL OTHER WELDS.	X	-		
3.	INSPECT ANCHORS CAST IN CONCRETE.	-	Х	ACI 318: 17.8.2	-
4.	INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.b				
	A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	x	-	ACI 318: 17.8.2.4	-
	B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	-	х	ACI 318: 17.8.2	-
5.	VERIFY USE OF REQUIRED DESIGN MIX.	-	х	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2 1908.2, 1908.3
6.	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	х	-	ASTM C172 ASTM C31 ACI 318: 26.4.5, 26.12	1908.10
7.	INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	x	-	ACI 318: 26.4.5	1908.6, 1908.7 1908.8
8.	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	х	ACI 318: 26.4.7-26.4.9	1908.9
9.	INSPECT PRESTRESSED CONCRETE FOR:				
	A. APPLICATION OF PRESTRESSING FORCES; AND	Х	-	ACI 318: 26.9.2.1	-
	 B. GROUTING OF BONDED PRESTRESSING TENDONS. 	x	-	ACI 318: 26.9.2.3	
10.	INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-	х	ACI 318: CH. 26.8	-
11.	VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	x	ACI 318: 26.10.2	-
12.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	х	ACI 318: 26.10.1(B)	-

WHERE APPLICABLE, SEE ALSO SECTION 1705.12, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE.

SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.

- "PLUG".

- REQUIREMENTS, U.N.O.:

OVERALL NOTES

1. THE CONSTRUCTION DOCUMENTS CONSIST OF THESE DRAWINGS AND A SEPARATE BOOK OF SPECIFICATIONS. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY AND NEITHER IS MEANT TO STAND ALONE FOR ANY PORTION OF THE WORK DESCRIBED IN THE DOCUMENTS. IMMEDIATELY REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS TO THE ARCHITECT AND THE STRUCTURAL ENGINEER OF RECORD.

2. PRIOR TO BEGINNING ANY WORK OR ORDERING ANY MATERIALS, THE CONTRACTOR SHALL COORDINATE THE STRUCTURAL DRAWINGS WITH THE DRAWINGS FROM THE ARCHITECT AND ALL OTHER TRADES. NOTIFY THE ARCHITECT AND THE STRUCTURAL ENGINEER OF RECORD OF ANY DISCREPANCIES OR POSSIBLE DEFICIENCIES.

3. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL VERIFY THE EXISTING SITE CONDITIONS AND CONSTRAINTS AS WELL AS EXISTING BUILDING LOCATION, DIMENSIONS, AND ELEVATIONS, IF ANY.

4. THE CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. ALL TEMPORARY BRACING, SHORING, SUPPORTS, ETC. ARE THE RESPONSIBILITY OF THE CONTRACTOR.

5. NO FIELD REVISIONS OR MODIFICATIONS TO ANY STRUCTURAL COMPONENT SHALL BE PERFORMED WITHOUT PRIOR APPROVAL BY THE ENGINEER OF RECORD.

6. PLANS AND DETAILS SHALL NOT BE SCALED FOR DETERMINATION OF LENGTHS, QUANTITIES, OR CONFIGURATION OF MATERIALS.

FOUNDATION AND GEOTECHNICAL NOTES

1. WHERE UTILITY TRENCHES EXTEND BEYOND THE BUILDING PERIMETER OR THE WORK AREA, A MINIMUM 5' LENGTH OF THE UTILITY TRENCH SHALL BE BACKFILLED WITH COMPACTED, LOW-PERMEABILITY CLAY OR CLSM TO FORM A "PLUG" TO HELP PREVENT THE MIGRATION OF WATER UNDER THE BUILDING FOOTPRINT. PIPE BEDDING CONSISTING OF GRANULAR FILL SHALL NOT BE USED IN THE AREA OF THE

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING AND SHORING ALL FOUNDATION WALLS, GRADE BEAMS, AND FOOTINGS DURING BACKFILL AND COMPACTION PROCEDURES.

3. THE FOUNDATIONS SHALL EXTEND BELOW THE FROST LINE. THE BOTTOM OF FOUNDATION ELEMENTS MAY BE LOWERED AS REQUIRED TO ACHIEVE THE REQUIRED COVER.

4. THE FOUNDATION ELEMENTS FOR THIS BUILDING ARE DESIGNED BASED UPON THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT LISTED IN THE DESIGN CRITERIA. THE RECOMMENDATIONS LISTED IN THIS SECTION ARE AS NOTED IN THIS REPORT. ANY DISCREPANCIES BETWEEN THE GEOTECHNICAL REPORT AND THE RECOMMENDATIONS IN THIS SECTION SHALL BE IMMEDIATELY REPORTED TO THE STRUCTURAL ENGINEER OF RECORD.

5. AFTER REMOVAL OF ALL SURFACE VEGETATION, UNSUITABLE BEARING MATERIALS, AND PERFORMING REQUIRED CUTS, THE WORK AREA SHALL BE UNDERCUT AND THEN BE PROOFROLLED AS SPECIFIED IN THE GEOTECHNICAL REPORT. THE WORK AREA SHALL EXTEND A MINIMUM OF 5'-0" BEYOND THE BUILDING PERIMETER OR AS DEFINED IN THE GEOTECHNICAL REPORT, WHICHEVER IS MORE RESTRICTIVE.

6. AFTER PROOFROLLING AND COMPLETING ANY CORRECTIVE WORK, THE WORK AREA SHALL BE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED. REFER TO THE GEOTECHNICAL REPORT FOR SCARIFICATION, MOISTURE, AND COMPACTION REQUIREMENTS.

7. SELECT FILL SHALL BE NON-EXPANSIVE, COHESIVE MATERIAL. REFER TO THE GEOTECHNICAL REPORT FOR SELECT FILL REQUIREMENTS.

. THE MINIMUM RECOMMENDED MOISTURE CONTENT SHALL BE MAINTAINED IN THE AREA OF THE BUILDING PAD UNTIL THE FLOOR SLAB IS CONSTRUCTED.

STRUCTURAL STEEL NOTES

1. U.N.O., FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH ANSI/AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," EDITION REFERENCED IN THE DESIGN CRITERIA, AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES," EDITION REFERENCED IN THE DESIGN CRITERIA, AND THE STANDARDS OF THE AMERICAN WELDING SOCIETY.

2. ALL STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED BY A FABRICATOR WITH EITHER AN AISC STD CERTIFICATION OR AN IAS AC172 CERTIFICATION. IF THE STEEL FABRICATOR DOES NOT HAVE THE REQUIRED CERTIFICATION, THE FABRICATOR SHALL PAY FOR THE "IN-PLANT" INSPECTIONS ASSOCIATED WITH THE SPECIAL INSPECTION REQUIREMENTS OF THE IBC CODE.

3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING MINIMUM

a. W SHAPES ASTM A992 GRADE 50 Fy = 50 KSI ASTM A572 GRADE 50 b. HP SHAPES Fy = 50 KSI

. REFER TO THE SPECIFICATIONS FOR PAINTING AND SURFACE PREPARATION REQUIREMENTS. DO NOT PAINT DEFORMED BAR ANCHORS.

2. UNPAINTED STRUCTURAL STEEL MEMBERS PERMANENTLY EXPOSED TO THE ELEMENTS SHALL BE GALVANIZED. GALVANIZING SHALL CONFORM TO ASTM A123. ALL CONNECTIONS SHALL BE SEAL WELDED PRIOR TO GALVANIZING.

3. ALL BOLTED CONNECTIONS FOR STRUCTURAL STEEL MEMBERS SHALL CONSIST OF ASTM A325-N BOLTS, U.N.O.

4. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARDS. ALL SHOP AND FIELD WELDS SHALL USE E70XX ELECTRODES. ALL WELDS SHALL BE PERFORMED BY A CERTIFIED WELDER AND CONFORM TO AISC AND AWS STANDARDS. ALL SHOP AND FULL PENETRATION BUTT WELDS SHALL BE INSPECTED BY ULTRASONIC TESTING UNLESS PROHIBITED BY THE GEOMETRY OF THE CONNECTION. IF ULTRASONIC TESTING CANNOT BE PERFORMED. X-RAY TESTING SHALL BE USED AT THE APPROVAL OF THE ARCHITECT/ENGINEER OF RECORD. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

5. STRUCTURAL STEEL SHALL NOT BE SPLICED OTHER THAN WHERE NOTED ON THE DRAWINGS WITHOUT APPROVAL OF THE ENGINEER OF RECORD.

6. STEEL BEAMS SHALL BE ERECTED WITH THEIR NATURAL CAMBER UP.

CONCRETE NOTES

- 1. ALL REINFORCED CONCRETE SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", LATEST EDITION INCLUDING AMENDMENTS, AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", EDITION REFERENCED IN THE DESIGN CRITERIA.
- 2. TOLERANCES FOR CONCRETE MEMBERS AND COMPONENTS SHALL CONFORM TO ACI 117 "SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS."
- 3. DETAILING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL CONFORM TO ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT."
- 4. U.N.O., CONCRETE SHALL CONSIST OF TYPE I, II, OR I/II PORTLAND CEMENT MEETING THE REQUIREMENTS OF ASTM C150 OR TYPE 1L PORTLAND LIME CEMENT MEETING THE REQUIREMENTS OF C595, NORMAL WEIGHT COARSE AGGREGATE WITH CRUSHED STONE #57 GRADATION THAT MEETS THE REQUIREMENTS OF ASTM C33, AND FINE AGGREGATE CONSISTING OF SAND THAT MEETS THE REQUIREMENTS OF ASTM C33. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH, MAXIMUM WATER-TO-CEMENT RATIO, AND AIR CONTENT AS NOTED BELOW FOR EACH CONCRETE USE:

W/C RATIO AIR CONTENT NOTES <u>CONCRETE USE</u> FOUNDATIONS 4,500 PSI 0.45 6.0%

- 5. PROVIDE AIR ENTRAINMENT ADMIXTURES AS REQUIRED TO ACHIEVE AIR CONTENTS INDICATED. AIR ENTRAINMENT ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTMC260.
- 6. CONCRETE WITH AIR CONTENT GREATER THAN 3% SHALL NOT BE HARD TROWELED. COORDINATE CONCRETE FINISHES WITH ARCHITECT.
- 7. SLUMP OF CONCRETE SHALL NOT EXCEED 3" AT THE END OF THE TRUCK OR PUMP HOSE (PER ACI 211.1 TABLE 6.3.1). SLUMP LOSS DUE TO PUMPING SHALL BE ACCOMMODATED. IF A SUPERPLASTICIZER OR MID-RANGE WATER REDUCING ADMIXTURE IS USED IN THE MIX DESIGN, THE SLUMP SHALL NOT EXCEED 8" AFTER ADDITION OF THE ADMIXTURE. DO NOT ADD WATER TO CONCRETE AFTER ADDING WATER-REDUCING ADMIXTURES TO THE MIX.
- 8. CONTRACTOR SHALL SUBMIT CONCRETE PROPORTIONS AND SUFFICIENT DOCUMENTATION FROM TEST RESULTS TO ESTABLISH THE STANDARD DEVIATION OF THE PROPOSED MIXES OR TRIAL MIXTURES.
- 9. U.N.O., ALL CONCRETE REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60 AND BE OF DOMESTIC MANUFACTURE. REINFORCING BARS TO BE WELDED SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706, GRADE 60. WELDING OF REINFORCING NOT SPECIFICALLY SHOWN ON THE DRAWINGS IS PROHIBITED.
- 10. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A1064 AND SHALL BE SUPPLIED IN FLAT SHEETS.
- 11. U.N.O., WELDING TO REINFORCING BARS SHALL NOT BE PERMITTED. ELECTRICAL GROUNDING AND OTHER REQUIRED CONNECTIONS TO REINFORCING BARS SHALL BE ATTAINED VIA CLAMPS OR OTHER MANUFACTURED CONNECTIONS.
- 12. U.N.O., MINIMUM CONCRETE COVER OVER REINFORCING BARS SHALL ADHERE TO ACI 318 SECTION 20.6.1.1.
- 13. U.N.O., DEVELOPMENT LENGTHS, CLASS "B" LAP SPLICES, AND HOOK DEVELOPMENT LENGTHS SHALL CONFORM TO ACI 318, REFER TO "CONCRETE REINFORCEMENT DEVELOPMENT LENGTH TABLE" FOR ADDITIONAL INFORMATION.
- 14. SPLICES IN REINFORCING SHALL OCCUR AS SHOWN ON THE DRAWINGS REINFORCEMENT DESIGNATED AS "CONTINUOUS REINFORCEMENT" MAY BE SPLICED AS REQUIRED WITH CLASS B LAP SPLICES. LAP SPLICES OF CONTINUOUS REINFORCEMENT SHALL OCCUR OVER SUPPORTS FOR BOTTOM BARS AND AT MID SPAN FOR TOP BARS.
- 15. REINFORCING SHALL BE SUPPORTED AND SECURED IN ITS PROPER LOCATION TO PREVENT DISPLACEMENT DURING PLACEMENT OF CONCRETE
- 16. JOINTS IN CONCRETE MEMBERS NOT SHOWN SHALL BE MADE AND LOCATED TO LEAST IMPAIR THE STRENGTH OF THE MEMBER AND APPEARANCE OF THE STRUCTURE. JOINTS IN CONCRETE ELEMENTS EXPOSED TO VIEW SHALL BE APPROVED BY THE ARCHITECT AND ENGINEER OF RECORD.
- 17. CONSTRUCTION JOINTS SHALL BE PREPARED BY ROUGHENING THE SURFACE OF THE CONCRETE IN AN APPROVED MANNER TO EXPOSE THE AGGREGATE UNIFORMLY LEAVING NO LAITANCE, LOOSENED PARTICLES, OR DAMAGED CONCRETE.
- 18. PROVIDE CHAMFERS AS DETAILED ON THE ARCHITECTURAL DRAWINGS.
- 19. ALL ANCHOR RODS SHALL MEET ASTM F1554, GR 36, U.N.O.
- 20. ALL HIGH-STRENGTH GROUT SHALL BE PREPACKAGED, NON-METALLIC, AND NON-GASEOUS. IT SHALL BE NON-SHRINK ACCORDING TO ASTM C-1107 OR CRD-C-621. GROUT SHALL OBTAIN A MINIMUM COMPRESSIVE STRENGTH OF 7,000 PSI IN 28 DAYS AND SHALL NOT BLEED, GROUT SHALL BE MOIST CURED FOR A MINIMUM OF 24 HOURS AFTER PLACEMENT, SUBMIT CERTIFIED, INDEPENDENT TEST DATA FOR APPROVAL
- 21. CONTROLLED, LOW-STRENGTH MATERIAL (CLSM, OR FLOWABLE FILL) SHALL BE PROPORTIONED. MIXED. TRANSPORTED, AND PLACED ACCORDING TO ACI 229R, "CONTROLLED LOW-STRENGTH MATERIALS." THE MINIMUM COMPRESSIVE STRENGTH OF CLSM SHALL BE BETWEEN 50 PSI AND 100 PSI PER CHAPTER 7 OF ACI 229R.

CONCRETE REINFORCEMENT DEVELOPMENT LENGTH TABLE							
	1	"c = 3,500 ps	i	1	"c = 4,500 ps	i	
BAR SIZE	DEVELOPMENT LENGTH (IN.)	CLASS "B" LAP SPLICE (IN.)	HOOKED DEVELOPMENT LENGTH (IN.)	DEVELOPMENT LENGTH (IN.)	CLASS "B" LAP SPLICE (IN.)	HOOKED DEVELOPMENT LENGTH (IN.)	
#3	16	21	8	14	19	7	
#4	21	28	11	18	24	9	
#5	26	34	13	23	30	12	
#6	31	41	16	27	36	14	
#7	45	59	18	40	52	16	
#8	51	67	21	45	59	18	
#9	58	76	23	51	67	21	
#10	65	85	26	57	75	23	
#11	72	94	29	64	84	26	

DEVELOPMENT LENGTH = STRAIGHT DEFORMED BAR DEVELOPMENT LENGTH IN TENSION AND IS EQUAL TO A CLASS "A" LAP SPLICE. CLASS "B" LAP SPLICE = SPLICE LENGTH FOR LAPPED DEFORMED BARS IN TENSION.

3. HOOKED DEVELOPMENT LENGTH = DEVELOPMENT LENGTH FOR DEFORMED BARS WITH STANDARD 90° HOOKS IN TENSION.

- 4. WHEN BARS OF DIFFERENT SIZES ARE LAPPED, SPLICE LENGTH SHALL BE THE GREATER OF A CLASS "A" LAP OF THE LARGER BAR OR A CLASS "B" LAP OF THE SMALLER BAR. MULTIPLY BY 1.3 FOR TOP BARS, WHICH INCLUDE BARS CAST WITH MORE THAN 12" OF FRESH
- CONCRETE BELOW THE DEVELOPMENT LENGTH OR SPLICE. MULTIPLY BY 1.5 FOR EPOXY-COATED BARS.

MULTIPLY BY 1.3 FOR LIGHT-WEIGHT CONCRETE.

DEGION				
DESIGN				
APPLICABL	LE BUILDING CODES			PLANNING DESIGN GRO
IBC 202 ASCE 7	18 INTERNATIONAL BUILDIN 7-16 MINIMUM DESIGN LOADS	IG CODE S FOR BUILDIN	IGS AND OTHER STRUCTURES	
AISC 3	03-10 CODE OF STANDARD PR 60-10 SPECIFICATION FOR STR	ACTICE FOR S RUCTURAL STI	STEEL BUILDINGS AND BRIDGES EEL BUILDINGS	5314 S YALE AVE SUITE 710 TULSA OK
ACI 318	8-14 BUILDING CODE REQUIR	EMENTS FOR	STRUCTURAL CONCRETE	918.628.1255 918.628.1256 FAX WWW.PLANNINGDESIGNGROUP.COM
DEAD LOA	D			
SELF V	VEIGHT OF STRUCTURE	ACT	TUAL WEIGHT OF MATERIALS	
LIVE LOAD	<u>)</u>			
BOARD	DWALK	100	PSF	
SNOW LOA	<u>AD</u>			
IMPOR	ND SNOW LOAD, Pg RTANCE FACTOR, Is	10 F 1.00)	
SNOW	EXPOSURE FACTOR, Ce	1.0 0.9		CEC CORPORATION WWW.CONNECTCEC.COM
WIND LOA	D			OK CA#: 32 EXP.: 2024-06-30
RISK C		 108	МОЦ	
EXPOS	SURE CATEGORY	C 0.85		
TOPOC	GRAPHIC FACTOR, Kzt	1.0)	
SEISMIC LO	OAD			THIS
LATITU	JDE AND LONGITUDE	35.2	2183571°N, 97.432459°W	PRELIMINARY IN
S1 Sde		0.08	35 g 33 g	NATURE AND IS
Sd1	TANCE FACTOR. le	0.08	35 g	
SITE C SEISM	LASSIFICATION IC DESIGN CATEGORY	C (F B	PER GEOTECHNICAL REPORT)	
FOUNDATI	ON DESIGN	2		
THE FC	OUNDATION ELEMENTS OF THE B	UILDING HAVE	E BEEN DESIGNED BASED ON	
THE RE FOR TH	ECOMMENDATIONS CONTAINED IN HE SITE.	N THE GEOTE	CHNICAL REPORT PREPARED	
GEOTE	ECHNICAL ENGINEER	HIN	DERLITER	PROJECT ADDRESS:
REPOF REPOF	RT NUMBER RT DATE	CEC	C-23-09 Y 13, 2023	801 E Alameda St.
<u>SLAB-(</u>	ON-GRADE			Norman, OK 73069
MODUI	LUS OF SUBGRADE REACTION, k	100	PCI	PROJECT NO. 230413
DRIVE HP10X	N PILE FOUNDATIONS 42			DATE 05/10/2024
MA ES	XXIMUM FACTURED LOAD TIMATED PENETRATION INTO ROO	70.5 CK 4.5 I	FT	DRAWN BY CHECKED
SHALL	OW FOUNDATIONS			
ALLOW	VABLE BEARING PRESSURE	1,50	00 PSF (ASSUMED)	AH IH
ALLOW ST ø ° & @ ±	ABLE BEARING PRESSURE RUCTURAL - DIAMETER - DEGREE - AND - AT - PLUS OR MINUS	1,50 A B B F IBC IN-K INT	00 PSF (ASSUMED) REVIATION S - INTERNATIONAL BUILDING CODE - INCH KIPS - INTERIOR IOIST BEADING	AHOMA
ALLOW ST % % @ ± A.B. ACI	ABLE BEARING PRESSURE RUCTURAL - DIAMETER - DEGREE - AND - AT - PLUS OR MINUS - ANCHOR BOLT(S) - AMERICAN CONCRETE	1,50 ABBF IBC IN-K INT J.B. JST	DO PSF (ASSUMED) REVIATION S - INTERNATIONAL BUILDING CODE - INCH KIPS - INTERIOR - JOIST BEARING - JOIST	TURE PARK KLAHOMA
ALLOW ST Ø ° & @ ± A.B. ACI ADJ	ABLE BEARING PRESSURE RUCTURAL - DIAMETER - DEGREE - AND - AT - PLUS OR MINUS - ANCHOR BOLT(S) - AMERICAN CONCRETE INSTITUTE - ADJACENT	1,50 ABBF IBC IN-K INT J.B. JST KIP KSF	DO PSF (ASSUMED) REVIATION - INTERNATIONAL BUILDING CODE - INCH KIPS - INTERIOR - JOIST BEARING - JOIST - 1000 POUNDS - KIPS PER SQUARE FOOT	H H H A, OKLAHOMA
ALLOW ST Ø ° & @ ± A.B. ACI ADJ AISC	ABLE BEARING PRESSURE RUCTURAL - DIAMETER - DEGREE - AND - AT - PLUS OR MINUS - ANCHOR BOLT(S) - AMERICAN CONCRETE INSTITUTE - ADJACENT - AMERICAN INSTITUTE OF STEEL CONSTRUCTION	1,50 ABBF IBC IN-K INT J.B. JST KIP KSF LB	DO PSF (ASSUMED) REVIATION - INTERNATIONAL BUILDING CODE - INCH KIPS - INTERIOR - JOIST BEARING - JOIST - 1000 POUNDS - KIPS PER SQUARE FOOT - POUND	AN NATURE PARK IAN, OKLAHOMA
ALLOW ST Ø ° & @ ± A.B. ACI AISI AISC AISI	 ABLE BEARING PRESSURE RUCTURAL DIAMETER DEGREE AND AT PLUS OR MINUS ANCHOR BOLT(S) AMERICAN CONCRETE INSTITUTE ADJACENT AMERICAN INSTITUTE OF STEEL CONSTRUCTION AMERICAN IRON AND STEEL INSTITUTE 	ABBF IBC IN-K INT J.B. JST KIP KSF LB LLH LLV	DO PSF (ASSUMED) REVIATIONAL BUILDING CODE - INTERNATIONAL BUILDING CODE - INCH KIPS - INTERIOR - JOIST BEARING - JOIST BEARING - JOIST - 1000 POUNDS - KIPS PER SQUARE FOOT - POUND - LONG LEG HORIZONTAL - LOW	RMAN NATURE PARK IRMAN, OKLAHOMA
ALLOW ST Ø ° & @ ± A.B. ACI ALSI AISI ARCH'L ASCE	 VABLE BEARING PRESSURE RUCTURAL DIAMETER DEGREE AND AT PLUS OR MINUS ANCHOR BOLT(S) AMERICAN CONCRETE INSTITUTE ADJACENT AMERICAN INSTITUTE OF STEEL CONSTRUCTION AMERICAN IRON AND STEEL INSTITUTE ARCHITECTURAL AMERICAN SOCIETY OF 	ABBF IBC IN-K INT J.B. JST KIP KSF LB LLH LLV LO	DO PSF (ASSUMED) REVIATIONAL BUILDING CODE - INTERNATIONAL BUILDING CODE - INCH KIPS - INTERIOR - JOIST BEARING - J	IORMAN NATURE PARK NORMAN, OKLAHOMA
ALLOW ST Ø % & @ ± A.B. ACI ADJ AISC AISI ARCH'L ASCE ASTM	ABLE BEARING PRESSURE RUCTURAL - DIAMETER - DEGREE - AND - AT - PLUS OR MINUS - ANCHOR BOLT(S) - AMERICAN CONCRETE INSTITUTE - ADJACENT - AMERICAN INSTITUTE OF STEEL CONSTRUCTION - AMERICAN INSTITUTE OF STEEL INSTITUTE - AMERICAN IRON AND STEEL INSTITUTE - ARCHITECTURAL - AMERICAN SOCIETY OF CIVIL ENGINEERS - AMERICAN SOCIETY OF TESTING AND MATERIALS	ABBB IBC IN-K INT J.B. JST KIP KSF LB LLH LLV LO MANUF MAX MECHII	DO PSF (ASSUMED) REVIATIONAL BUILDING CODE - INTERNATIONAL BUILDING CODE - INCH KIPS - INTERIOR - JOIST BEARING - JOIST BEARING - JOIST BEARING - JOIST BEARING - JOIST - 1000 POUNDS - KIPS PER SQUARE FOOT - POUND - LONG LEG HORIZONTAL - LOW - MANUFACTURER - MAXIMUM - MECHANICAI	H H
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W/O

W.P.

WWR

- WITHOUT

- WORKING POINT

- WELDED WIRE REINFORCEMENT

G.B.

H.S.

HI

HK

HORZ

- GRADE BEAM

- HORIZONTAL

- HIGH

- HOOK

- HIGH STRENGTH

J-

GENERAL NOTES



RETAINING WALL SCHEDULE WALL DIMENSIONS REINFORCING STEEL HS B T TB TW C BAR F1 BAR F2 BAR F3 BAR V1 BAR DOWELS SIZE SPC SIZE SPC SIZE SPC SIZE SPC BAR SIZE DH 2' 3'-0" 1'-0" 1'-6" 0'-8" #4 @ 12" 3 - #5 EQ SPACED N/A #5 @ 18" #5 @ 18" #4 @ 18" N/A 3' 3'-0" 1'-0" 1'-0" 0'-8" #4 @ 12" #4@ 9" #4 @ 9" #4 @ 9" #4 @ 9" #4 @ 12" N/A N/A 6' 4'-6" 1'-6" 1'-6" 1'-0" #4 @ 18" #5 @ 18" #5 @ 18" #5 @ 18" #4 @ 18" #4 @ 18" 2'-0" 8' 5'-6" 2'-0" 1'-6" 1'-0" #4 @ 18" #5 @ 18" #5 @ 18" #5 @ 18" #5 @ 18" #4 @ 18" #6 @ 18" 2'-6" 10' 7'-0" 2'-0" 1'-6" 1'-0" #4 @ 18" #5 @ 18" #7 @ 18" #5 @ 18" #5 @ 18" #4 @ 18" #7 @ 18" 4'-0" 12' 9'-0" 2'-0" 1'-6" 1'-0" #4 @ 18" #5 @ 12" #7 @ 12" #7 @ 12" #4 @ 12" #7 @ 12" 5'-0"





Item 2.

HEC-RAS River: Bishop Creek Tri Reach: Reach-1 Profile: 100-year

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Reach-1	4174	100-year	Existing Conditions	553.00	1181.18	1185.32		1185.35	0.002372	2.41	443.74	295.69	0.21
Reach-1	4174	100-year	Proposed Layout - 12112023	553.00	1181.18	1185.32		1185.35	0.002372	2.41	443.74	295.69	0.21
Reach-1	4092	100-year	Existing Conditions	553.00	1180.77	1184.98		1185.06	0.005861	3.83	306.10	249.67	0.33
Reach-1	4092	100-year	Proposed Layout - 12112023	553.00	1180.77	1184.98		1185.06	0.005861	3.83	306.10	249.67	0.33
Reach-1	3883	100-year	Existing Conditions	553.00	1179.19	1183.10	1183.10	1183.44	0.010221	8.42	182.45	219.29	0.75
Reach-1	3883	100-year	Proposed Layout - 12112023	553.00	1179.19	1183.10	1183.10	1183.44	0.010221	8.42	182.45	219.29	0.75
Reach-1	3528	100-year	Existing Conditions	553.00	1177.21	1179.61		1179.69	0.004069	4.36	252.07	220.89	0.50
Reach-1	3528	100-year	Proposed Layout - 12112023	553.00	1177.21	1179.60		1179.69	0.004070	4.36	252.04	220.88	0.50
	0040	100				1175.00		4470.40	0.007577			157.00	0.75
Reach-1	2913	100-year	Existing Conditions	812.00	11/1.65	1175.80		1176.13	0.007577	8.63	226.68	157.86	0.75
Reach-1	2913	100-year	Proposed Layout - 12112023	812.00	11/1.65	1175.80		1176.14	0.007573	8.62	226.74	157.90	0.75
Deceb 1	2600	100 year	Eviating Conditions	912.00	1169.00	1173.00	1172.02	1172.62	0.009951	8.02	100.20	169.50	0.91
Reach 1	2009	100-year	Drepeed Levent 12112022	812.00	1168.02	1173.09	1173.03	1173.03	0.000001	0.02	199.20	100.39	0.01
Reach- I	2009	100-year	Proposed Layout - 12112023	012.00	1100.92	1173.09	1173.03	1173.03	0.006655	0.02	199.10	100.00	0.01
Reach-1	2550	100-vear	Existing Conditions	812.00	1167.01	1172.95		1173 20	0.004078	5.82	283.08	205 54	0.54
Reach-1	2550	100-year	Proposed Layout - 12112023	812.00	1167.91	1172.95		1173.20	0.004070	5.82	283.88	205.54	0.54
110000111	2000	loo you	Tiopood Edyout TETTEOEd	012.00		1112.00		1110.20	0.001002	0.02	200.00	200.00	0.01
Reach-1	2251	100-vear	Existing Conditions	812.00	1166 13	1170.89	1170.33	1171 32	0.010732	9.85	270.35	186 43	0.80
Reach-1	2251	100-year	Proposed Lavout - 12112023	812.00	1166.13	1170.90	1170.33	1171.32	0.010714	9.84	270.56	186.52	0.80
Reach-1	1523	100-year	Existing Conditions	812.00	1159.42	1165.12		1165.42	0.006246	8.47	351.47	238.88	0.63
Reach-1	1523	100-year	Proposed Layout - 12112023	812.00	1159.42	1165.12		1165.42	0.006254	8.48	351.30	238.87	0.63
Reach-1	535	100-year	Existing Conditions	812.00	1155.38	1160.96	1160.96	1162.70	0.018696	10.59	76.70	22.38	1.01
Reach-1	535	100-year	Proposed Layout - 12112023	812.00	1155.38	1160.96	1160.96	1162.70	0.018667	10.58	76.75	22.39	1.01
Reach-1	534	100-year	Existing Conditions	812.00	1152.75	1158.83	1157.90	1159.73	0.008309	7.68	123.84	77.77	0.69
Reach-1	534	100-year	Proposed Layout - 12112023	812.00	1153.00	1158.30	1157.99	1159.64	0.007837	9.30	87.73	29.21	0.89
Reach-1	533	100-year	Existing Conditions	812.00	1150.54	1157.66		1158.31	0.005746	6.53	142.42	83.86	0.58
Reach-1	533	100-year	Proposed Layout - 12112023	812.00	1150.99	1156.32	1156.32	1157.79	0.011269	9.76	84.43	31.18	0.98
Reach-1	532	100-year	Existing Conditions	812.00	1150.68	1156.78		1157.51	0.006040	7.01	138.99	60.56	0.61
Reach-1	532	100-year	Proposed Layout - 12112023	812.00	1150.37	1156.94		1156.97	0.000118	1.48	549.02	106.94	0.12
	504	100	5					4457.00			151.00	40.04	0.54
Reach-1	531	100-year	Existing Conditions	812.00	1149.39	1156.44		1157.02	0.004142	6.24	151.08	48.91	0.51
Reach-1	531	100-year	Proposed Layout - 12112023	812.00	1149.77	1150.37		1120.89	0.003103	5.79	140.36	39.34	0.54
Popeh 1	520.5	100 year	Existing Conditions	912.00	1149 74	1156 10		1156.65	0.003402	5.56	177.91	97.12	0.46
Reach 1	530.5	100-year	Proposed Layout 12112022	912.00	1140.74	1156.09		1156.59	0.003402	5.30	167.63	94.55	0.40
noaun=1	000.0	100-year	10p03eu Layout = 12112023	012.00	1140.90	1130.00		1130.30	0.003076	3.11	107.03	04.00	0.40
Reach-1	530	100-vear	Existing Conditions	812 00	1148 24	1155 11	1154 40	1156 17	0.009920	12 11	154.01	45.28	0.82
Reach-1	530	100-year	Proposed Layout - 12112023	812.00	1148.00	1156.00	1152 33	1156.18	0.003320	3.43	242 54	-0.20 69 38	0.02
1.00011-1	000	100-your	risposed Eayout - 12112020	012.00	1140.00	1100.00	1102.00	1100.10	0.004407	0.40	272.04	00.00	0.20
Reach-1	453.26			Culvert									
				2									
Reach-1	351	100-year	Existing Conditions	812.00	1145.91	1154.15	1151.42	1154.71	0.002302	8.78	180.27	68.33	0.54
Reach-1	351	100-year	Proposed Layout - 12112023	812.00	1145.91	1154.15	1151.42	1154.71	0.002302	8.78	180.27	68.33	0.54



Alameda Stormwater Nature Park



0 0.0075 0.015 0.03 Miles



BFE 2021 1% Chance Floodplain Floodway AerialPhoto2021 RGB Red: Band_1 Green: Band_2 Blue: Band_3

The City of Norman assumes no responsibility for errors or omissions in the information presented.

1 inch = 120 feet

Item 3.

ITEM: Floodplain Permit application for proposed installation of an outdoor rifle marksmanship shooting lane at 3800 Jenkins Ave. at the existing CoN police gun range in the Canadian River floodplain.

BACKGROUND:

APPLICANT: City of Norman ENGINEER: City of Norman – Brandon Brooks, P.E., CFM

This project involves the excavation, grading, and construction of an outdoor rifle marksmanship shooting lane. The construction entails the installation of 6, 10' X 30' X 4" concrete pads located at 0, 25, 50, 75, 100, 200, and 300 yards from a berm. The berm is located outside of the floodplain. Each pad site will be installed flush with the existing grade. The police department is also intending to construct a drivable surface at existing grade utilizing road millings compacted to a thickness of 4" and located 30' away from a drainage channel. The surface is not intended for use by passenger vehicles, but is intended for use by small, light-service utility vehicles (golf cart, side-by-side, etc.). Compacted asphalt road millings will result in a permeable surface. Additionally, a low water crossing will be constructed to cross the existing channel at the current flow line. The low water crossing will be lined with flexamat. All excavated material generated during construction will be used to build the berm.

The channel flow line and banks of the drainage channel will not be altered for this project with the exception of the low water crossing which will be installed at the existing channel grade and stabilized with flexamat. All exposed ground will be stabilized during and after construction. There will not be any increase in the Base Flood Elevation at any of this location.

STAFF ANALYSIS:

Site located in Little River Basin or Tributaries? yes_ $no \checkmark$

According to the latest DFIRM, portions of this project are located within the Canadian River floodplain and floodway (Zone AE).

Applicable Ordinance Sections:	Subject Area:
36-533 (e)(2)(a)	Fill restrictions in the floodplain
(e)(2)(e)	Compensatory storage
(f)(3)(8)	No rise considerations

(e)(2)(a) and (e)(2)(e) Fill Restrictions in the Floodplain and Compensatory Storage – The use of fill is restricted in the floodplain unless compensatory storage is provided.

The project engineer has indicated that all new installation of concrete pads, asphalt millings and flexamat will be installed at grade. Any excavated material will be used to construct the berm behind the target area, outside of the floodplain.

(f)(3)(8) No Rise Considerations – For proposed development within any flood hazard area (except for those designated as regulatory floodways), certification that a rise of no more than 0.05 ft. will occur in the BFE on any adjacent property as a result of the proposed work is required.

The project engineer has indicated that proposed projects involves no fill or significant changes to the flow line or banks of the drainage channel, therefore no impact to the BFE will occur.

RECOMMENDATION: Staff recommends Floodplain Permit Application #691 be approved.

ACTION TAKEN: _____



City of Norman

Floodplain Permit No.	39	١
Floodplain Permit No.	24	

Floodplain Permit Application

Building Permit No.	

6-3-2024 Date

FLOODPLAIN PERMIT APPLICATION

(\$100.00 Application Fee Required)

SECTION 1: GENERAL PROVISIONS (APPLICANT to read and sign):

1. No work may start until a permit is issued.

- 2. The permit may be revoked if any false statements are made herein.
- 3. If revoked, all work must cease until permit is re-issued.
- 4. Development shall not be used or occupied until a Certificate of Occupancy is issued.
- 5. The permit will expire if no work is commenced within 2 years of issuance.
- 6. Applicant is hereby informed that other permits may be required to fulfill local, state and federal regulatory requirements and must be included with this floodplain permit application.
- 7. Applicant hereby gives consent to the City of Norman or his/her representative to access the property to make reasonable inspections required to verify compliance.
- 8. The following floodplain modifications require approval by the City Council:
 - (a) A modification of the floodplain that results in a change of ten percent (10%) or more in the width of the floodplain.
 - (b) The construction of a pond with a water surface area of 5 acres or more.
 - (c) Any modifications of the stream banks or flow line within the area that would be regulatory floodway whether or not that channel has a regulatory floodplain, unless the work is being done by the City of Norman staff as part of a routine maintenance activity.

9. All supporting documentation required by this application is required along with the permit fee by the submittal deadline. Late or incomplete applications will not be accepted.

10. I, THE APPLICANT, CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.

SECTION 2: PROPOSED DEVELOPMENT (To be completed by APPLICANT.)

APPLICANT:	ADDRESS:
TELEPHONE:	SIGNATURE:
BUILDER:	ADDRESS:
TELEPHONE:	SIGNATURE:
ENGINEER: Brandon Brooks, PE, CFM	ADDRESS: 225 N. Webster Ave, Norman, OK 73069
TELEPHONE: 405-366-5459	SIGNATURE:

PROJECT LOCATION

To avoid delay in processing the application, please provide enough information to easily identify the project location. Provide the street address, subdivision addition, lot number or legal description (attach) and, outside urban areas, the distance to the nearest intersecting road or well known landmark. A sketch attached to this application showing the project location would be helpful.

Norman Police Department Firearms Ranges

3942 Jenkins Ave

DESCRIPTION OF WORK (Check all applicable boxes): A. STRUCTURAL DEVELOPMENT

<u>ACTIVITY</u> <u>STRUCTURE TYPE</u>

□ New Structure	□ Residential (1-4 Family)
□ Addition	□ Residential (More than 4 Family)
☑ Alteration	□ Non-Residential (Flood proofing? □ Yes)
□ Relocation	□ Combined Use (Residential & Commercial)
Demolition	□ Manufactured (Mobile) Home
□ Replacement	□ In Manufactured Home Park? □ Yes

ESTIMATED COST OF PROJECT \$_____ Work that involves substantial damage/substantial improvement requires detailed cost estimates and an appraisal of the structure that is being improved.

B. OTHER DEVELOPMENT ACTIVITIES:

- □ Fill □ Mining □ Drilling ☑ Grading
- Excavation (Beyond the minimum for Structural Development)
- □ Watercourse Alteration (Including Dredging and Channel Modifications)
- Drainage Improvements (Including Culvert Work) Drainage Improvements (Including Culvert Work)
- □ Subdivision (New or Expansion) □ Individual Water or Sewer System

In addition to items A. and B. provide a complete and detailed description of proposed work (failure to provide this item will be cause for the application to be rejected by staff). Attach additional sheets if necessary.

The Norman Police Department would like to construct a shooting lane for rifle marksmanship. The location of the construction is in the floodplain. It will involve

the construction of concrete pads at 25, 50, 100, 200, and 300 yards. A berm is to be constructed to act as a backstop. All installations will require excavation and all

excavated material will be placed in the berm which is located outside of the floodplain.

C. ATTACHMENTS WHICH ARE REQUIRED WITH EVERY APPLICATION:

The applicant must submit the documents listed below before the application can be processed. If the requested document is not relevant to the project scope, please check the Not Applicable box and provide explanation.

- A. Plans drawn to scale showing the nature, location, dimensions, and elevation of the lot, existing or proposed structures, fill, storage of materials, flood proofing measures, and the relationship of the above to the location of the channel, floodway, and the regulatory flood-protection elevation.
- B. A typical valley cross-section showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development, and high-water information.
 - ☑ Not Applicable:
- C. Subdivision or other development plans (If the subdivision or other developments exceeds 50 lots or 5 acres, whichever is the lesser, the applicant <u>must</u> provide 100-year flood elevations if they are not otherwise available).

☑ Not Applicable:

D. Plans (surface view) showing elevations or contours of the ground; pertinent structure, fill, or storage elevations; size, location, and spatial arrangement of all proposed and existing structures on the site; location and elevations of streets, water supply, sanitary facilities; photographs showing existing land uses and vegetation upstream and downstream, soil types and other pertinent information.

☑ Not Applicable:

E. A profile showing the slope of the bottom of the channel or flow line of the stream.

☑ Not Applicable:

F. Elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures.

☑ Not Applicable:

G. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

☑ Not Applicable:

- H. For proposed development within any flood hazard area (except for those areas designated as regulatory floodways), certification that a rise of no more than five hundredths of a foot (0.05') will occur on any adjacent property in the base flood elevation as a result of the proposed work. For proposed development within a designated regulatory floodway, certification of no increase in flood levels within the community during the occurrence of the base flood discharge as a result of the proposed work. All certifications shall be signed and sealed by a Registered Professional Engineer licensed to practice in the State of Oklahoma.
- I. A certified list of names and addresses of all record property owners within a three hundred fifty (350) foot radius of the exterior boundary of the subject property not to exceed 100 feet laterally from the Special Flood Hazard Area. The radius to be extended by increments of one hundred (100) linear feet until the list of property owners includes not less than fifteen (15) individual property owners of separate parcels or until a maximum radius of one thousand (1,000) feet has been reached.
- J. A copy of all other applicable local, state, and federal permits (i.e. U.S. Army Corps of Engineers 404 permit, etc).

After completing SECTION 2, APPLICANT should submit form to Permit Staff for review.

SECTION 3: FLOODPLAIN DETERMINATION (To be completed by Permit Staff.)

The proposed development is located on FIRM Panel No.: 0290 H, Dated: 9126/2008

The Proposed Development:

□ Is NOT located in a Special Flood Hazard Area (Notify the applicant that the application review is complete and NO FLOODPLAIN PERMIT IS REQUIRED).

☑ Is located in a Special Flood Hazard Area.

□ The proposed development is located in a floodway.

 \Box 100-Year flood elevation at the site is <u>1094</u>, i Ft. NGVD (MSL) \Box Unavailable

See Section 4 for additional instructions.

DATE: 5/28/2029 SIGNED:

SECTION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by Permit Staff.)

The applicant must also submit the documents checked below before the application can be processed.

- Flood proofing protection level (non-residential only) _____ Ft. NGVD (MSL). For flood proofed structures applicant must attach certification from registered engineer.
- Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood (Base Flood Elevation). A copy of all data and calculations supporting this finding must also be submitted.
- Certification from a registered engineer that the proposed activity in a regulatory flood plain will result in an increase of no more than 0.05 feet in the height of the 100-year flood (Base Flood Elevation). A copy of all data and calculations supporting this finding must also be submitted.
- All other applicable federal, state, and local permits have been obtained.

Other: _____

SECTION 5: PERMIT DETERMINATION (To be completed by Floodplain Chairman.)

The proposed activity: (A) \Box Is; (B) \Box Is Not in conformance with provisions of Norman's City Code Chapter 36, Section 533. The permit is issued subject to the conditions attached to and made part of this permit.

SIGNED: _____ DATE: ____

If **BOX A** is checked, the Floodplain committee chairman may issue a Floodplain Permit.

If BOX B is checked, the Floodplain committee chairman will provide a written summary of deficiencies. Applicant may revise and resubmit an application to the Floodplain committee or may request a hearing from the Board of Adjustment.

APPEALS:	Appealed to Board of Adjustment: Hearing date:	🗆 Yes	□No	
	Board of Adjustment Decision - Approved:	□ Yes	□ No	
Conditions:				

<u>SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Occupancy is issued.)</u>

1. FEMA Elevation Certificate

and/or

2. FEMA Floodproofing Certificate

NOTE: The completed certificate will be reviewed by staff for completeness and accuracy. If any deficiencies are found it will be returned to the applicant for revision. A Certificate of Occupancy for the structure will not be issued until an Elevation and /or Floodproofing Certificate has been accepted by the City.

PUBLIC WORKS DEPARTMENT

Phone: 405-366-5452 Fax: 405-366-5418



May 20, 2024

Mr. Scott Sturtz, P.E., CFM Floodplain Administrator City of Norman

Re: No Rise Certification Bridge Maintenance Projects Norman, OK

Dear Mr. Sturtz:

This project involves the excavation, grading, and construction of an outdoor rifle marksmanship shooting lane. The construction entails the installation of 6, 10' X 30' X 4" concrete pads located at 0, 25, 50, 75, 100, 200, and 300 yards from a berm. The berm is located outside of the floodplain. Each pad site will be installed flush with the existing grade. The police department is also intending to construct a drivable surface at existing grade utilizing road millings compacted to a thickness of 4" and located 30' away from a drainage channel. The surface is not intended for use by passenger vehicles, but is intended for use by small, light-service utility vehicles (golf cart, side-by-side, etc.). Compacted asphalt road millings will result in a permeable surface. Additionally, a low water crossing will be lined with flexamat. All excavated material generated during construction will be used to build the berm.

The channel flow line and banks of the drainage channel will not be altered for this project with the exception of the low water crossing which will be installed at the existing channel grade and stabilized with flexamat. All exposed ground will be stabilized during and after construction. There will not be any increase in the Base Flood Elevation at any of this location.

Please contact me at 405-366-5459 if you have any questions or need further information.

Sincerely,

Brandon Brooks, P.E., CFM Capital Projects Engineer

National Flood Hazard Layer FIRMette



Legend



Basemap Imagery Source: USGS National Map 2023





Police Shooting Range







The City of Norman assumes no responsibility for errors or omissions in the information presented.

1 inch = 481 feet

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